TWENTY-SEVENTH

ANNUAL REPORT

OF THE PRESIDENT OF

The Johns Hopkins University

Baltimore, Maryland

1902

Baltimore
The Johns Hopkins Press
1902
TRUSTEES.

1902-1903.

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FRANCIS WHITE.

Secretary:
LEWIS N. HOPKINS.

Members of the Board:

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FRANCIS WHITE,
W. GRAHAM BOWDOIN,
WILLIAM T. DIXON,
EUGENE LEVERING,
RICHARD M. VENABLE,

John Gill of R,
Bernard N. Baker,
Francis M. Jencks,
R. Brent Keyser,
Theodore Marburg,
Blanchard Randall,
The President of the University, ex officio.

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LEWIS N. HOPKINS,
The President of the Board, ex officio.
REPORT.

TO THE TRUSTEES OF
THE JOHNS HOPKINS UNIVERSITY:—

Gentlemen:

I have the honor to submit to you my first report, being the twenty-seventh annual report of the President of the University. My term of office began September first, 1901, and properly speaking this report has nothing to do with anything that happened before that time. I cannot, however, let the opportunity pass without expressing my personal regret that President Gilman felt it necessary to resign his office. Those who had been most closely associated with him felt that, so far as his efficiency is concerned, there was no reason for this action on his part, and all would have been glad to have him continue to fill the office which he had graced so long. It was clear, however, that he had no thought of reconsidering, and his resignation was therefore accepted. It is the hope of his many friends that he may enjoy a long period of relief from the burdens he has carried so well. By action of the Trustees he has been given the title of "President Emeritus and Lecturer on Special Topics," and he will therefore con-
Twenty-Fifth Anniversary.

continue to be a member of our staff. Whatever may come in the future, he will always be known as the Builder of The Johns Hopkins University.

CELEBRATION OF THE TWENTY-FIFTH ANNIVERSARY AND INAUGURATION OF THE NEW PRESIDENT.

In accordance with the resolution to which reference was made in the last annual report, arrangements were made early in the year for the celebration of the twenty-fifth anniversary of the foundation of the university and for the inauguration of the new President. The ceremonies took place on the twenty-first and twenty-second of February last. All who were present must agree that they served their purpose well. A full report of the exercises of the two days has been prepared and published, so that there is no need of going into details here. In my opinion the celebration was enlightening to the general public and to this community, and most inspiring to those who are charged with the duties of its management.

PERSONAL CHANGES.

Important changes have been made during the year in the Board of Trustees. Mr. James L. McLane, who had been a member of the Board eleven years, Chairman of the Executive Committee since February 7, 1898, and for more than a year President of the Board, presented his resignation January 6, 1902. On the third of February, Mr. Arthur George Brown, a member of the Board for nearly four years, and since October 7, 1901, Chairman of the Executive Committee, also
resigned. These resignations were accepted with great regret. On the 7th of April the following gentlemen were elected members of the Board: Messrs. Bernard N. Baker, Francis M. Jencks, R. Brent Keyser, Theodore Marburg, Blanchard Randall.

The following new appointments and promotions in the Faculty have been made for the coming year:

_In the Philosophical Department:_

'To be Professor of Latin:

Kirby F. Smith, Ph.D.

'To be Associate Professors:

George B. Shattuck, Ph.D., Physiographic Geology.
Harry L. Wilson, Ph.D., Latin.

'To be Associate in Zoology:

Caswell Grave, Ph.D.

'To be Instructors and Assistants:

Frank R. Blake, Ph.D., Oriental Languages.
Julius Hofmann, German.
Louis A. Parsons, Ph.D., Physics.

_In the Medical Department:_

'To be Associate Professor of Pathology:

William G. MacCallum, M.D.

'To be Associate in Gynecology:

Guy L. Hunner, M.D.

'To be Instructors and Assistants:

Walter Baumgarten, M.D., Medicine.
Joel Ives Butler, M.D., Anatomy.
Burton D. Myers, M.D., Anatomy.
Sylvan Rosenheim, M.D., Laryngology.
Glanville Y. Rusk, M.D., Psychiatry.
Florence R. Sabin, M.D., Anatomy.
Benjamin R. Schenck, M.D., Gynecology.
Statistics.

The academic staff numbered during the year one hundred and forty-four teachers, seventy-nine in the philosophical department and sixty-five whose work lay wholly in medicine. The number of students enrolled was six hundred and ninety-four, of whom two hundred and seventy-three were residents of Maryland, three hundred and ninety-seven came here from forty other States of the Union, and twenty-four from foreign countries. Among the students were five hundred and thirty already graduated, one hundred and seventy-two of whom were enrolled in the department of Philosophy and the Arts, three hundred and fifty-eight in the department of Medicine. They came from two hundred and one colleges and universities. There were one hundred and fifty-eight matriculates (or candidates for the degree of Bachelor of Arts), and six were admitted as special students, to pursue courses of study for which they seemed fitted, without reference to graduation. The degree of Bachelor of Arts was conferred upon forty-nine candidates, the degree of Doctor of Medicine upon fifty-seven, and seventeen were promoted to the degree of Doctor of Philosophy.

The first table indicates the enrolment of students in each year since the university was opened in the autumn of 1876:—
During twenty-six years, four thousand three hundred and sixty-eight individuals have been enrolled as students, of whom sixteen hundred and eighty-five are registered as from Maryland (including thirteen hundred and fifty-six from Baltimore), and two thousand six hundred and eighty-three
Statistics.

from seventy-two other States and countries. Two thousand eight hundred and twenty-one persons entered as graduate students, and fifteen hundred and forty-seven entered as undergraduates. Of the undergraduates, four hundred and four have continued as graduate students, many of them proceeding to the degree of Doctor of Philosophy. It thus appears that three thousand two hundred and twenty-five persons have followed graduate studies here.

The following table indicates the geographical distribution of the students each year since the opening, as shown by the Annual Registers:

<table>
<thead>
<tr>
<th>Year</th>
<th>Of Maryland</th>
<th>Not of Md.</th>
<th>Year</th>
<th>Of Maryland</th>
<th>Not of Md.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1876-77</td>
<td>59</td>
<td>30</td>
<td>1889-90</td>
<td>215</td>
<td>189</td>
</tr>
<tr>
<td>1877-78</td>
<td>71</td>
<td>33</td>
<td>1890-91</td>
<td>235</td>
<td>233</td>
</tr>
<tr>
<td>1878-79</td>
<td>76</td>
<td>47</td>
<td>1891-92</td>
<td>273</td>
<td>274</td>
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<tr>
<td>1879-80</td>
<td>97</td>
<td>62</td>
<td>1892-93</td>
<td>266</td>
<td>285</td>
</tr>
<tr>
<td>1880-81</td>
<td>95</td>
<td>81</td>
<td>1893-94</td>
<td>260</td>
<td>262</td>
</tr>
<tr>
<td>1881-82</td>
<td>97</td>
<td>78</td>
<td>1894-95</td>
<td>260</td>
<td>329</td>
</tr>
<tr>
<td>1882-83</td>
<td>106</td>
<td>98</td>
<td>1895-96</td>
<td>272</td>
<td>324</td>
</tr>
<tr>
<td>1883-84</td>
<td>126</td>
<td>126</td>
<td>1896-97</td>
<td>254</td>
<td>266</td>
</tr>
<tr>
<td>1884-85</td>
<td>130</td>
<td>160</td>
<td>1897-98</td>
<td>279</td>
<td>362</td>
</tr>
<tr>
<td>1885-86</td>
<td>184</td>
<td></td>
<td>1898-99</td>
<td>277</td>
<td>372</td>
</tr>
<tr>
<td>1886-87</td>
<td>216</td>
<td></td>
<td>1899-1900</td>
<td>262</td>
<td>333</td>
</tr>
<tr>
<td>1887-88</td>
<td>221</td>
<td></td>
<td>1900-01</td>
<td>270</td>
<td>318</td>
</tr>
<tr>
<td>1888-89</td>
<td>211</td>
<td></td>
<td>1901-02</td>
<td>273</td>
<td>421</td>
</tr>
</tbody>
</table>

Since degrees were first conferred, in 1878, seven hundred and fifty-six persons have attained the Baccalaureate degree, five hundred and ninety-six have been advanced to the degree of Doctor of Philosophy, and two hundred and twenty-three to the degree of Doctor of Medicine, as appears from the following table,—the whole number of individuals graduated being fourteen hundred and twenty-two:
Certificates of proficiency in applied electricity were awarded to ninety persons from 1889 to 1899.

The attendance upon the courses given in some of the principal subjects has been as follows during the last five years:

<table>
<thead>
<tr>
<th>Subject</th>
<th>1889-90</th>
<th>1890-91</th>
<th>1891-92</th>
<th>1892-93</th>
<th>1893-94</th>
<th>1894-95</th>
<th>1895-96</th>
<th>1896-97</th>
<th>1897-98</th>
<th>1898-99</th>
<th>1899-1900</th>
<th>1900-01</th>
<th>1901-02</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics and Astronomy</td>
<td>85</td>
<td>79</td>
<td>60</td>
<td>49</td>
<td>51</td>
<td>23</td>
<td>39</td>
<td>34</td>
<td>37</td>
<td>40</td>
<td>34</td>
<td>41</td>
<td>37</td>
</tr>
<tr>
<td>Physics</td>
<td>101</td>
<td>94</td>
<td>91</td>
<td>84</td>
<td>41</td>
<td>34</td>
<td>37</td>
<td>47</td>
<td>37</td>
<td>37</td>
<td>34</td>
<td>31</td>
<td>28</td>
</tr>
<tr>
<td>Chemistry</td>
<td>139</td>
<td>118</td>
<td>116</td>
<td>121</td>
<td>37</td>
<td>47</td>
<td>37</td>
<td>36</td>
<td>36</td>
<td>36</td>
<td>34</td>
<td>37</td>
<td>36</td>
</tr>
<tr>
<td>Geology and Mineralogy</td>
<td>39</td>
<td>34</td>
<td>31</td>
<td>27</td>
<td>37</td>
<td>47</td>
<td>37</td>
<td>36</td>
<td>36</td>
<td>36</td>
<td>34</td>
<td>37</td>
<td>36</td>
</tr>
<tr>
<td>Biology</td>
<td>156</td>
<td>178</td>
<td>154</td>
<td>144</td>
<td>156</td>
<td>182</td>
<td>156</td>
<td>178</td>
<td>154</td>
<td>144</td>
<td>136</td>
<td>156</td>
<td>144</td>
</tr>
<tr>
<td>Pathology and Bacteriology</td>
<td>39</td>
<td>21</td>
<td>30</td>
<td>24</td>
<td>30</td>
<td>24</td>
<td>30</td>
<td>24</td>
<td>30</td>
<td>24</td>
<td>30</td>
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<tr>
<td>Greek</td>
<td>45</td>
<td>47</td>
<td>38</td>
<td>28</td>
<td>38</td>
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<td>38</td>
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<td>38</td>
<td>28</td>
<td>38</td>
<td>28</td>
<td>38</td>
</tr>
<tr>
<td>Latin</td>
<td>73</td>
<td>71</td>
<td>67</td>
<td>56</td>
<td>38</td>
<td>28</td>
<td>38</td>
<td>28</td>
<td>38</td>
<td>28</td>
<td>38</td>
<td>28</td>
<td>38</td>
</tr>
<tr>
<td>Sanskrit, etc.</td>
<td>40</td>
<td>33</td>
<td>38</td>
<td>29</td>
<td>38</td>
<td>29</td>
<td>38</td>
<td>29</td>
<td>38</td>
<td>29</td>
<td>38</td>
<td>29</td>
<td>38</td>
</tr>
<tr>
<td>Semitic Languages</td>
<td>35</td>
<td>31</td>
<td>31</td>
<td>23</td>
<td>31</td>
<td>23</td>
<td>31</td>
<td>23</td>
<td>31</td>
<td>23</td>
<td>31</td>
<td>23</td>
<td>31</td>
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<tr>
<td>German</td>
<td>170</td>
<td>125</td>
<td>121</td>
<td>111</td>
<td>170</td>
<td>125</td>
<td>121</td>
<td>111</td>
<td>170</td>
<td>125</td>
<td>121</td>
<td>111</td>
<td>170</td>
</tr>
<tr>
<td>French, Italian, etc.</td>
<td>79</td>
<td>87</td>
<td>90</td>
<td>89</td>
<td>79</td>
<td>87</td>
<td>90</td>
<td>89</td>
<td>79</td>
<td>87</td>
<td>90</td>
<td>89</td>
<td>79</td>
</tr>
<tr>
<td>English, etc.</td>
<td>132</td>
<td>142</td>
<td>160</td>
<td>144</td>
<td>132</td>
<td>142</td>
<td>160</td>
<td>144</td>
<td>132</td>
<td>142</td>
<td>160</td>
<td>144</td>
<td>132</td>
</tr>
<tr>
<td>History and Political Science</td>
<td>129</td>
<td>123</td>
<td>121</td>
<td>126</td>
<td>129</td>
<td>123</td>
<td>121</td>
<td>126</td>
<td>129</td>
<td>123</td>
<td>121</td>
<td>126</td>
<td>129</td>
</tr>
<tr>
<td>Philosophy</td>
<td>61</td>
<td>61</td>
<td>56</td>
<td>49</td>
<td>61</td>
<td>61</td>
<td>56</td>
<td>49</td>
<td>61</td>
<td>61</td>
<td>56</td>
<td>49</td>
<td>61</td>
</tr>
</tbody>
</table>

* Including only the courses offered to graduates in medicine.
The following table indicates the enrolment of students in the Medical Department since its opening in October, 1893:

<table>
<thead>
<tr>
<th>Year</th>
<th>Candidates for the Degree of M. D.</th>
<th>Doctors of Medicine</th>
<th>Total Enrolment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1893-94</td>
<td>- 18 - 65 - -</td>
<td>- 83</td>
<td></td>
</tr>
<tr>
<td>1894-95</td>
<td>- 51 - 76 - -</td>
<td>- 127</td>
<td></td>
</tr>
<tr>
<td>1895-96</td>
<td>- 84 - 69 - -</td>
<td>- 153</td>
<td></td>
</tr>
<tr>
<td>1896-97</td>
<td>- 123 - 11* - -</td>
<td>- 134</td>
<td></td>
</tr>
<tr>
<td>1897-98</td>
<td>- 167 - 74 - -</td>
<td>- 241</td>
<td></td>
</tr>
<tr>
<td>1898-99</td>
<td>- 197 - 55 - -</td>
<td>- 252</td>
<td></td>
</tr>
<tr>
<td>1899-1900</td>
<td>- 211 - 73 - -</td>
<td>- 284</td>
<td></td>
</tr>
<tr>
<td>1900-01</td>
<td>- 209 - 96 - -</td>
<td>- 305</td>
<td></td>
</tr>
<tr>
<td>1901-02</td>
<td>- 229 - 129 - -</td>
<td>- 358</td>
<td></td>
</tr>
</tbody>
</table>

The Dean of the Medical Faculty calls attention to the number of students of medicine in these words: "The large number of students in the first-year class increased greatly the work of the teaching staff in that year, and if the numbers continue to grow, a considerable enlargement of the staff will be required to preserve the efficiency of the practical course.” This is a matter of the greatest importance and it will require the careful consideration of the Trustees and of the Advisory Board. The number of medical students that can be properly provided for is largely determined by the opportunities for clinical work. It appears clear to those who know most about the conditions that the limit has already been nearly reached for existing conditions. Our laboratory facilities are also fast becoming inadequate, and increased accommodations will have to be provided in the immediate future.

*Beginning with 1897 the courses offered to Doctors of Medicine have been given in May and June, after the compilation of the Register, and those in attendance are now counted in the enrolment of the succeeding year.
State Aid.

STATE AID.

The Maryland Legislature has continued to give the university much-needed financial assistance. At the session of 1902, a grant of twenty-five thousand dollars a year for two years was made.

Subsequent to the Legislative grant of 1900, the following announcement was made by the Trustees:

The Johns Hopkins University offers to young men of Maryland needing pecuniary assistance twenty undergraduate scholarships,—in addition to the fifteen Hopkins Scholarships, which will be awarded, as heretofore, to residents of Maryland. The offer is made for the academic year beginning in September, 1901. They are for the benefit of all parts of the State, and accordingly not more than half the number will be awarded to residents of the city and county of Baltimore, and not more than one-half to those who are now members of the university. The appointing board will consist of the President of the Board of Trustees, the President of the University, and the Dean of the Collegiate Department. The usual entrance examinations must be passed by the candidates. Applications, accompanied by testimonials, may be sent prior to May 1, 1901, to the President of the University. Appointments will be made as soon as possible thereafter. Correspondence on the subject is invited, and may be addressed to the President of the University. These scholarships entitle the holders to free tuition and are tenable for one year. They do not carry exemption from laboratory fees.

The results have been somewhat disappointing. There were only five candidates in 1901 for the ten scholarships offered to counties other than Baltimore county, and of the whole number appointed (thirteen) but three were not already members of the university. The offer has been renewed on the same terms for the next academic year.

STATE BUREAUS.

The university has maintained its co-operation with the official State Bureaus established here, viz., the Geological
Public Lectures and Assemblies.

Survey and the Maryland Weather Service. The work of these important agencies is described by the Director, Professor William B. Clark, in the appendix to this report.

At the request of the Maryland Commissioners of the South Carolina Inter-State and West Indian Exposition, the Director of the Geological Survey of Maryland sent to Charleston an elaborate collection of materials representing the resources of the State of Maryland. Of forty-nine gold medals awarded in the Department of Mines and Mining, eleven were awarded to the exhibits of the Maryland Geological Survey. The collection has been returned to Baltimore, and rooms have been fitted up in one of the university buildings for the purpose of placing it on exhibition. This exhibition is now open to the public. It ought to be interesting and instructive to everybody.

Public Lectures and Assemblies.

The tenth annual course of lectures on the Turnbull foundation was given in April by Dr. Emil G. Hirsch, Professor of Rabbinical Literature in the University of Chicago. His subject was “Medieval Jewish Poetry,” and the course consisted of eight lectures.

The Maryland Society of Colonial Dames of America again made provision for a course of lectures on Maryland Colonial History. The course was delivered in February and March by Clayton C. Hall, LL. B., A. M., of Baltimore, and comprised six lectures on “The Lords Baltimore and the Maryland Palatinate.”

A course of six lectures and recitals, on the Donovan foundation, was given in January and February by Professor
Public Lectures and Assemblies.

Richard G. Moulton, of the University of Chicago. His subject was "Ancient Tragedy for English Audiences."

Mr. S. A. King (M.A., University of London) gave six lectures in November on the "Art of Public Speaking," and also a recital of selections from Shakespeare's plays.

Professor James Schouler, LL. D., of Boston, continued his annual lectures on American History, taking for his subject the "Life of the People during the Revolution." He gave four lectures on the following topics: The People; Social Conditions; Industries and Home Comfort; Travel and Transportation.

The Albert Shaw Lectures on Diplomatic History were given by Professor George M. Fisk, of the Jacob Tome Institute. The course consisted of twelve lectures.

Dr. Jeffrey R. Brackett gave, as in past years, ten lectures on Public Aid, Charity, and Correction, with a weekly conference on Charitable Legislation and Custom in England and the United States.

Professor George E. Howard, formerly of Leland Stanford University, gave in May two lectures in French History, on the topics "Turgot and the French Revolution," "Mirabeau and the Constituent Assembly."

Professor Frederick M. Warren's annual course in French literature was given in December and January. The subject was "The French Realists and Naturalists of the Nineteenth Century," and it was treated in six lectures.

Several illustrated lectures were given in McCoy Hall under the auspices of the Baltimore Society of the Archaeological Institute of America. The lecturers and their subjects are as follows: Miss Harriet A. Boyd, of Smith College, on "American Excavations in Crete, 1901: The Discovery of a Mycenaean Provincial Town;" Rev. Walter Lowrie, on "Sin-
Public Lectures and Assemblies.

"Cerity in Religious Art;" Professor F. W. Kelsey, of the University of Michigan, on "Ten Years of Excavation in Pompeii, 1892-1901."

Under the auspices of the Municipal Art Society of Baltimore, the following illustrated lectures were given in McCoy Hall: "Park Extension," by Mr. John M. Carrère; "The City of the Future," by Mr. Albert Kelsey; "Smoke Prevention," by Mr. C. H. Benjamin; "Arts and Crafts," by Mr. Leslie W. Miller.

Single lectures or addresses were given by the following gentlemen:

Sir Robert S. Ball, of the University of Cambridge, on "Time and Tide;"

Professor Samuel Ives Curtis, of the Chicago Theological Seminary, on the "Deification of Men;"

M. Léopold Mabileau, of Paris, on "L'Ouvrier français;"

Dr. William H. Tolman, of New York, on "Social and Industrial Betterment,"—(provided by The Woman's Club of Roland Park).


The public educational lectures were continued during the year, in the following subjects:

1. Physics,—twenty lectures, accompanied by experiments, on the "History of the Principles of Physics," by Professor Ames.
Public Lectures and Assemblies.

2. Geography,—twenty lectures on the "Geography of North America," illustrated with maps, charts, and stereopticon views, and each followed by a conference, by Dr. G. B. Shattuck.


4. English Literature,—eighteen lectures on the "Literature of the Victorian Era," by Dr. F. H. Sykes.

5. Latin,—two courses of twenty lessons each, by Dr. H. L. Wilson.

The annual debate and contest in public speaking by the undergraduates was held February 27; and on the 13th of March there was a debate between undergraduates representing this University and the University of North Carolina. The following gentlemen acted as Judges on these occasions, and to them the thanks of the University are due:


Among the organizations which have met in the rooms of the university in the course of the year are the following:

Charity Organization Society of Baltimore, National Rivers and Harbors Congress, Baltimore Society of the Archaeological Institute of America, Baltimore County Teachers' Institute, Maryland Folk-Lore Society, Presbyterian Union of Maryland, Municipal Art Society of Baltimore, Maryland Public Health Association, Baltimore Kindergarten Association, Maryland State Federation of Women's Clubs, Botany Club of Baltimore.
Commencement.

COMMENCEMENT.

The exercises of Commencement were held in the Academy of Music on the tenth day of June, 1902. The degree of Bachelor of Arts was conferred upon forty-seven candidates, the degree of Doctor of Philosophy upon seventeen, and that of Doctor of Medicine upon fifty-seven. The candidates were presented respectively by Dean Griffin, Professor Smith, and Dean Howell. The principal address was given by Mr. Elgin R. L. Gould (Ph. D., Johns Hopkins, 1886), City Chamberlain of New York. In the evening the graduates and their friends were received by the faculty in McCoy Hall.

THE JOHN MARSHALL PRIZE.

The John Marshall Prize was awarded on Commencement Day to James Curtis Ballagh (Ph. D., Johns Hopkins, 1895), in recognition of his work entitled "A History of Slavery in Virginia," recently published.

The recipients of this prize are named below:

1892. Henry C. Adams. 1896. Westel W. Willoughby, Ph. D.
1892. Charles H. Levermore, Ph. D. 1897. J. Franklin Jameson, Ph. D.
1892. John M. Vincent, Ph. D. 1898. Charles D. Hazen, Ph. D.
1892. Woodrow Wilson, Ph. D. 1899. Jacob H. Hollander, Ph. D.
1893. Charles M. Andrews, Ph. D. 1900. James M. Callahan, Ph. D.
1895. Albert Shaw, Ph. D. 1902. James C. Ballagh, Ph. D.

PUBLICATIONS.

The various serial publications of the university have appeared as usual. The list now includes the following journals:
Publications.

The American Journal of Mathematics, in its twenty-fourth volume; the American Journal of Philology, in its twenty-third volume; the American Chemical Journal in its twenty-eighth; Studies in Historical and Political Science, of which the twentieth series is nearly completed, and several extra volumes have been issued; the Journal of Experimental Medicine, which is about to enter upon its seventh volume; and Modern Language Notes, of which seventeen volumes are nearly complete. The Contributions to Assyriology, the Memoirs from the Biological Laboratory, and the Journal of Terrestrial Magnetism have also been issued under the editorial direction of university professors.

After the death of Professor Rowland a committee consisting of Messrs. Remsen, Welch, and Ames was appointed to prepare a suitable memorial. Mr. R. W. Wood was afterwards added to this committee. It was decided to invite Dr. T. C. Mendenhall, formerly President of the Worcester Polytechnic Institute, to prepare an address on the life and work of Professor Rowland, and to give the address at the university as soon as convenient. The address was given before a large audience October 26, 1901. It proved to be most satisfactory to those who were chiefly interested. The speaker knew Professor Rowland well and understood his work. The preparation of the address could hardly have been entrusted to better hands. The committee above referred to recommended to the Trustees that a Memorial Volume be published containing the memoirs and addresses of Professor Rowland, as well as a description of the ruling engine which is used in making the gratings now so extensively employed in spectroscopic work. This volume has been prepared and is about to be issued (November, 1902).
Another interesting and valuable memorial is a volume entitled "Herbert B. Adams, Tributes of Friends." This contains a biographical sketch by Professor J. M. Vincent, an address on "The Life and Services of Herbert Baxter Adams," by Professor Richard T. Ely, and briefer notices by President Gilman, Professor B. J. Ramage, and others, besides a bibliography of the department of History, Politics, and Economics, 1876–1901. This volume was prepared under the editorial supervision of Professor J. M. Vincent.

Of especial interest is the volume entitled "Studies in Honor of Basil L. Gildersleeve." This inscription tells the story of the book: "To Basil Lanneau Gildersleeve in Commemoration of the Seventieth Anniversary of his Birth these Studies are dedicated as a token of Affection, Gratitude and Esteem by his Pupils." All members of the university rejoice in this well-deserved recognition of one of whom they are justly proud and whom they delight to see honored. All know that the university owes much of its reputation to the able scholar and acute thinker, our Professor of Greek—"one of those rare men who never grow old."

Attention is called here to the publication of the Kashmirian Atharva-Veda, the so-called Pāippalāda-Veda, under the joint editorship of Professor Bloomfield, of this University, and Professor Garbe, of the University of Tübingen. This publication consists of three quarto volumes, containing about 550 plates. The original is a birch-bark manuscript. It has been beautifully reproduced by means of color-photography and is now accessible to all scholars.
GIFTS.

The Wehrhane Memorial Fund of five thousand dollars, given to the university by Mr. J. B. Noel Wyatt, for the establishment of a lectureship in German history, literature, or art, has, at his request, been transferred to the library, and the income will hereafter be used for the purchase of books in the German language, or of such books as relate to distinctly German subjects.

A Baltimore gentleman, who desires his name withheld, has given one thousand dollars to be devoted to a systematic investigation of the history, activities, and influence of labor organizations in the United States. He has also given five hundred dollars for the purchase of books, journals, and reports relating to this subject.

Mr. Leopold Strouse has continued his generous gifts to the Leopold Strouse Semitic Library, and has also made a special gift of five hundred dollars for the purchase of Semitic books to commemorate the completion of the university's first quarter of a century.

In order to perpetuate the memory of Dr. M. C. Sutphen, lately an Instructor in Latin, his friend Mr. Frank J. Mather, Jr. (Ph. D., Johns Hopkins, 1892), of New York, has offered to the University the sum of eighty dollars a year, to purchase books for the classical library. This fund is to be known as the Morris C. Sutphen Memorial Fund.

Mr. George A. Von Lingen, of Baltimore, has presented to the university the sum of one hundred and seventy-five dollars for the purchase of books pertaining to geology.

The sum of one hundred dollars has been contributed,
through Dr. J. M. Vincent, for the purchase of books on
economic subjects, in remembrance of the late Dr. Sidney
Sherwood. The donor withholds his name from publication.

Among many noteworthy gifts to the library should be
mentioned that by Mr. Edgar G. Miller, of Baltimore, of the
beautiful work, in eleven volumes, describing the Walters
collection of potteries.

Dr. E. R. L. Gould, an alumnus of the University, now
City Chamberlain of New York, has given the sum of five
hundred dollars to provide a course of lectures, during
the academic year 1902-1903, on the subject of Social
Economics.

Mrs. Lucy J. Wood, of Jamaica Plain, Massachusetts, has
given the sum of one thousand dollars for the purchase of
apparatus for the physical laboratory.

Dr. James Schouler has presented to the university a por-
trait of himself, in oil, painted by Mr. Thomas C. Corner, of
Baltimore; and Mr. George Whitelock, of Baltimore, has
given a portrait, in oil, of Professor A. M. Elliott, the artist
being Mrs. Leslie Cotton, of New York.

Dr. H. A. Kelly has presented a beautiful collection of
butterflies, and also cases suitable for their exhibition.

Mr. William Schnauffer, of Frederick County, Maryland,
sent his check for twenty-five dollars in February, as a con-
tribution to the fund for the erection of buildings on the new
site presented to the university.

The Colonial Dames of America, Chapter I, have offered
a copper medallion bas-relief to be bestowed annually as a
prize for original work in American history.

As residuary legatee under the will of the late Professor
Adams, the university has received from his executors about
forty-two thousand dollars. Professor Adams's desire, as expressed in his last will and testament, was that this bequest should constitute a distinct fund to be known as the Herbert B. Adams Fund, and that the income should be used for the advancement of history, political science, and education, to the promotion of which he had devoted his life.

The great gifts of the year were (1) the Homewood Estate and other tracts of land adjoining, and (2) an Endowment Fund of one million dollars. These will be treated of somewhat more fully in the following paragraphs.

GIFT OF THE HOMEDOW ESTATE AND OTHER LAND FOR A FUTURE SITE FOR THE UNIVERSITY.

In the last annual report of my predecessor an account was given of an offer made by Mr. William Wyman, Mr. William Keyser, and others of a large and valuable tract of land as a site for the university. "The offer was made upon certain conditions which seemed very reasonable,—the most important being that an additional endowment of one million dollars should be secured." Another condition was that this sum should be subscribed before July 17, 1901. It need only be said now that the efforts to secure this endowment within the prescribed time failed, and at the beginning of the academic year 1901-1902 the outlook was far from bright. Soon after the beginning of the year, however, the matter was again taken up by several of those who are especially interested in the welfare of the university and, after many consultations, Messrs. William Wyman, William Keyser, Samuel Keyser, Francis M. Jencks, William H. Buckler, and Julian LeRoy White renewed their generous offers of the previous year, but without condition as to the raising of the million dollar fund.
Their offer was laid before the Board of Trustees, March 10, 1902. It was accepted, and a committee consisting of Mr. Venable and the President of the University was appointed "to draft a minute to be entered on the records of the university, expressing the grateful appreciation of the university for the great liberality of the donors," and "to report to the Board such methods as may seem desirable to express and preserve in lasting remembrance their munificence."

At a later meeting this committee presented the following minute which was unanimously adopted, and it was resolved to have a properly-prepared copy presented to each of the donors of the lands:

"In accepting the deeds of the Homewood Estate, which is to be the future site of The Johns Hopkins University, the Trustees of The Johns Hopkins University herewith put on record their grateful sense of the munificence of the givers and the timeliness of the gift. Coming at any period in the history of the University, the acquisition of property so admirably adapted to the purposes of academic life, by its extent, its beauty, its environment, would have been a signal gain. Coming, as it does now, after a long season of embarrassment, when the check in the development of the far-reaching plans of the University had begun to make itself felt, the gift of this estate carries with it the promise and pledge of renewed life and progress, and will incite others to generous emulation in the endowment of the University. To the workers within and to the world without, it marks an epoch second only to that of the original foundation.

With this high appreciation of the generosity and the wisdom of the donors, the Trustees of The Johns Hopkins University will deem it their duty and privilege to make such provision in the development of the property that the memory of this noble example shall not perish from the earth, and that the names of those who have made this new life possible shall share that life forever."

The only condition imposed by the donors of the land is that "the Trustees of the University shall lay off and convey to the Mayor and City Council of Baltimore a portion of the land, not to be less in amount than thirty acres, for the purposes of a public park." It is understood that a tract
from the southern end and a strip along the western boundary are to be thus conveyed, and a driveway is to be laid out by the city through the strip referred to. This will, it is hoped, be the beginning of important improvements in the park system of the city; and it is clear that it will be to the advantage of the university to have a large part of its boundary thus ornamented and protected.

**Endowment Fund.**

While the land was given without condition as far as the raising of an endowment fund was concerned, it was the full belief that steps would at once be taken to put the university in the possession of the sum of one million dollars to be used as a permanent endowment. The importance of this for the future of the university has been repeatedly pointed out in the past, and that subject may be passed over here. The failure to secure the endowment fund the previous year was discouraging. Nevertheless, as soon as it became known that the land had been given without condition, a committee of alumni and others went to work with great enthusiasm and energy to collect the needed fund. In the course of a few weeks they were able to report to the Trustees that about $700,000 had been promised. The Trustees then took the matter up. A public meeting was held May 2nd. This was attended by a number of the most prominent citizens of Baltimore. Several new promises were made, and a committee of citizens appointed to push the work to completion. As several of the larger subscriptions were conditional upon the raising of the entire amount of one million dollars by July 1st, there was plainly no time to be lost.

At a meeting of the Board of Trustees held July 1st, the Chairman of the Committee on the Endowment Fund reported
that the entire sum had been subscribed, and the following resolution was adopted:

"Resolved, That the Committee which has had charge of raising the million dollar fund be requested to make a formal written report of their proceedings in raising said fund, and that they be requested to incorporate in said report the names of the subscribers to the fund."

This report has not yet been submitted to the Board, but it is in course of preparation. Those who have contributed of their time and of their means will receive full recognition, and they may be sure of the hearty thanks of all connected with the university. One and all they have done the university a great service at a most critical time. Courage and hope have taken the place of anxiety and doubt.

To those who look for immediate results it should be said that the income from only a part of the new endowment fund will be available this year. The greater part of the fund will, however, probably have been paid in by the end of the present academic year, and the effect on the finances of the university will therefore be felt next year. This will make it possible to carry on our work as in the past without curtailment, though it should be borne in mind that it does not make it possible to enlarge the scope of the work to any great extent. Another fact that should again be emphasized is this, that no part of the endowment fund is available for building. We have the land, we have an addition of one million dollars to our endowment, but we have no money available for building, and we cannot occupy the new site until buildings are provided. We have high hopes that one by one these will be provided. A rare opportunity is here offered to those who wish to be of service to their generation and to leave behind them some permanent memorial. A useful building bearing the name of the donor is a constant reminder of the one whose name it bears.
Present Condition of the University.

Present Condition of the University.

As a false impression has been spread abroad in regard to the present condition of the university, it will be well for me to say a few words on that subject. It will probably be a surprise to many to learn that the university has no debts. It has had misfortunes, but, by the good management of the Trustees and the generous aid of citizens and of the State, it has always been enabled to meet its obligations. A cautious policy has been necessary, but the caution has been wisely exercised so as to affect as little as possible the members of the staff. For a long period it has been practically impossible to increase the salaries of a number of those who are entitled to recognition by virtue of the character of their work. This has been the cause of a good deal of hardship, but this has been borne in the main without complaint. The loyalty of our staff during the long period of depression is worthy of the highest praise.

While the buildings of the university form a striking contrast to the costly collections that so many of the older, and some of the younger, institutions rejoice in, and while many a visitor has expressed astonishment and disappointment at the first sight of these plain structures, the fact should be emphasized that the equipment of these buildings has never been allowed to deteriorate. The laboratories are and always have been supplied with everything needed for the purposes of the work carried on in them. I do not believe any important piece of work, whether in the line of instruction or of research, has ever been allowed to suffer for lack of means. Large sums have been expended from the beginning for the purpose of encouraging research, and great freedom has been allowed those who have shown special ability in this direction. There
Needs of the University.

has never been the slightest departure from this policy, and I may say, in passing, that, so far as I may have any influence in shaping the future policy of the university, that influence will be exerted to prevent any change in this respect. So, too, in regard to books. The appropriations for new books have been inadequate for some time past, but books that were needed have been procured in some way, and no important literary work has been prevented for lack of books. Further, the University Library is admirably supplemented by other libraries of Baltimore, especially that of the Peabody Institute, whose Provost and Trustees have always shown a desire to cooperate with the university in maintaining the library facilities of the city on a high level, from the point of view of the scholar.

Needs of the University.

While the library and laboratories are well equipped and several of the departments of study are fully supplied with teachers, it should be said that in other departments additional teachers are much needed, and, further, some important subjects are not at all represented. These deficiencies should receive prompt attention. As soon as the money is available and the proper men can be found, the Trustees will undoubtedly act. It should be noted that it is often as hard to find the men as to provide the necessary funds. The demand for university teachers has increased markedly in the last few years, and the supply of properly qualified men does not appear to have kept pace with the demand. This may be only apparent, and continued search may lead to the discovery of the exceptional men.

Respectfully submitted,

Ira Remsen.

December 1, 1902.
Mathematics.

GRADUATE COURSES.

Professor Morley gave the following courses:

1. Advanced Geometry.—This course was a continuation of one of the previous year. After a brief recapitulation, the theory of the linear complex was taken up, and its connection with Ball's theory of screws was developed. The aid afforded by regarding a linear complex as a quadric in five dimensions led to discussion of projective geometry of four and five dimensions. Much use was made in particular of the memoirs of Study. The Steiner quartic and the cubic discovered by Segre and Castelnuovo were studied in detail.

2. The Differential Equations of Physics.—This was a half-year course, mainly based on Weber's new edition of Riemann's "Partielle Differentialgleichungen," and was an account of the potential, with detailed treatment of Bessel Functions and Zonal Harmonics.

3. Kinematics.—The principal motions of a plane on a plane were discussed in order A new proof of Savary's theorem was given. The theory of displacements in space was then considered in close connexion with Study's "Theorie der Dynamen."

Dr. Cohen gave the following courses:

1. Elementary Theory of Functions. Twice weekly through the year.

After a full account of the theory of series, including Fourier series, the study of line and surface integrals was taken up; then followed the elementary theory of uniform and of algebraic functions of the complex variable.

2. Advanced Differential Equations. Twice weekly through the year.

In this course the theory of ordinary differential equations from the point of view of the theory of the complex variable was studied. After giving several of the classic proofs of the existence theorem for a single equation, and for systems of ordinary equations, the theory of the differential equation of
the first order was taken up and studied extensively, as well as linear
differential equations in general, and those of the second order in particular.
3. Algebraic Numbers and the Galois Theory. *Twice weekly through the
year.*

After a brief introduction into the theory of algebraic numbers, the
theory of substitutions was taken up, followed by the Galois theory, and its
application to the solution of algebraic equations.

Dr. Fabian Franklin gave, during March and April, a course of twelve
lectures on the Theory of Probability.
A lecture was given December 7 by Sir Robert S. Ball, on his Theory of
Screws.

In the Seminary, which met weekly, attention was mainly concentrated
on Projective Geometry.

Apparatus for the study of straight lines in space has been added to our
collection.

The American Journal of Mathematics is in its twenty-fourth volume.
With this volume is presented a portrait of Benjamin Peirce.

**Undergraduate Courses.**

The undergraduate courses are much the same from year to year. During
the past year they were given as follows:

**Third-Year Course (Elective):**
Elementary Differential Equations. *Twice weekly through the year.* Dr.
Cohen.

**Major Course:**
Determinants. *Four hours weekly until October 24.* Professor Hulburt.
Differential and Integral Calculus (special topics). *Four hours weekly,
October 25 to December 17.* Professor Hulburt.
Elementary Theory of Equations. *Four hours weekly, January 7 to Feb-
ruary 27.* Professor Hulburt.
Elements of Projective Geometry. *Four hours weekly, March 4 to the end
of the year.* Professor Hulburt.

**Minor Course:**
Analytic Geometry. *Four hours weekly, until December 17.* Professor
Hulburt.
Differential and Integral Calculus. *Four hours weekly, January 2 to the
end of the year.* Professor Hulburt.

**For Candidates for Matriculation:**
Algebra (special topics); Solid Geometry; Plane Trigonometry; Analytic
Geometry (straight line and loci). *Four hours weekly through the year.*
Mr. Hun.

**Frank Morley,**
*Professor of Mathematics.*
Physics.

The physical laboratory has been open daily during the year for the work of advanced and undergraduate students. Regular courses of lectures have been given and meetings have been held weekly for the reading of the current journals. The Physical Seminary has met once a week, the main study for the year being a series of reports on the present basis of Experimental Physics. A list of papers presented in the Seminary will be given below.

The regular courses of instruction were as follows:

Advanced work, for graduate students:
(1). General Physics (Mechanics and Hydrodynamics), by Professor Ames. *Three hours weekly through the year.*
(2). The Physical Seminary, by Professor Ames. *One and a half hours weekly through the year.*
(3). Physical Optics, by Professor Ames. *Three hours weekly through the year.*
(4). Applied Electricity—Alternating Current Apparatus, by Mr. J. B. Whitehead. *Two hours weekly through the year.*
(5). Elements of Astronomy, by Dr. W. B. Huff. *Weekly through the year.*
(6). Terrestrial Magnetism, by Dr. L. A. Bauer. *Four lectures.*

Collegiate Courses:
(1). The Elements of Physics, by Professor Ames and Dr. Huff. *Four hours weekly through the year.*
(2). Advanced Physics, by Professors Ames, Bliss, and Wood. *Four hours weekly through the year.*
(3). Laboratory instruction, by Professor Bliss, Dr. Huff, and Mr. Whitehead.

In addition to these courses there was a series of popular lectures, open to the university, given by Professor Wood at irregular intervals through the year, at which the most recent experimental work in physics was described and illustrated.

In the Physical Seminary papers on the following subjects were read and discussed:

Courses of Instruction, 1901-1902.


A. H. Nelson—Phenomena of Cloudy Condensation.


J. E. Routh—Properties of Thin Films.

Besides these papers several biographies and sketches of the various European Academies were also presented.

In the laboratory the following work has been done:

Dr. W. B. Huff has carried on an investigation concerning the Properties of the Electric Arc and the effect of varying current upon the Spectrum of Carbon.

Mr. L. A. Parsons has continued his work on the Spectrum of Hydrogen under varied conditions, and is offering the results of his research as his Doctor’s dissertation.

Dr. Harold Pender has extended his research of last year on the Magnetic Effect of Electrical Convection, in order to see whether the phenomena previously observed depend upon the speed or the potential used. The results of his experiments confirm Professor Rowland’s previous work.

Mr. J. B. Whitehead has made an elaborate study in order to test directly the magnetic effect of Displacement Currents, and offers this as a dissertation for his Doctor’s degree.

Mr. James Barnes has spent the year in a study of the spectra of mercury and hydrogen by two Interferometer methods; and Mr. G. W. Middlekauff has investigated the same spectra by means of an Echelon Spectroscope. Neither of these researches is yet completed.

Mr. J. H. Moore has begun a research on the Absorption Spectrum of Sodium Vapor; and Mr. E. P. Hyde is studying at the same time its Fluorescent Spectrum.

Mr. J. T. Barrett has made a short study on the nature of Colloids; and Mr. H. D. Hill has begun a research on the Laws of Absorption by Gases.

Professor Wood has made a most interesting research on the colors of films formed by metallic particles in a minute state, which has led him to
Chemistry.

advance a theory as to a new cause of color. He has been interested also in one or two other subjects, but as yet no final results have been obtained.

Among the gifts to the laboratory during the past year several are worthy of note. Mr. William H. Buckler has given an autograph letter of Benjamin Franklin; Mr. Theodore Marburg has continued his gift for the purchase of books, which amounts to the sum of $200 annually; Mrs. Lucy J. Wood, of Jamaica Plain, Mass., has presented the laboratory with $1000 for the purchase of apparatus.

It may be well to record the fact that under the direction of a committee appointed by the Board of Trustees a volume is now being printed, which will contain the collected Physical Papers of the late Professor Rowland.

During the year there have been fourteen advanced students pursuing physics as their principal study, two of whom will take the degree of Doctor of Philosophy in June.

J. S. Ames,
Professor of Physics.

Chemistry.

The lecture and class-room instruction which has been given during the year is indicated below:

By Professor Remsen:
The Chemistry of the Compounds of Carbon. Three times weekly through the year.
Meetings for reports on the Current Progress of Chemistry. Weekly through the year.

By Professor Morse:
Seminary for Advanced Students. Twice weekly through the year.

By Professor Renouf:
General Chemistry (Minor Course). Four times weekly through the year.

By Dr. H. C. Jones, Associate Professor of Physical Chemistry:
Physical Chemistry. Three times weekly through the year.

By Dr. J. E. Gilpin, Associate in Chemistry:
General Inorganic Chemistry (Major Course). Four times weekly until Christmas.
Compounds of Carbon (Major Course). Four times weekly from Christmas until the end of the year.

By Dr. C. E. Waters, Assistant in Chemistry:
Reviews in General Chemistry. Weekly through the year.
Twenty-four advanced students have followed chemistry as their principal subject, and four of these have absolved the requirements for the degree of Doctor of Philosophy. Their names and the titles of their dissertations are given below:

F. E. Clark.—The Action of Substituted Ammonias of the Aliphatic Series on the Chlorides of Orthosulphobenzoic Acid.

C. F. Lindsay.—A Study of the Conductivity of Certain Salts in Methyl, Ethyl and Prophyl Alcohols and in Mixtures of these Solvents.

W. S. Weedon.—An Investigation of the Oxidation Products of Phenylthiosalicylic Acid.

K. Yamaguchi.—An Investigation of the Hydrated Oxides of Manganese derived from Electrolytically Prepared Permanganic Acid.

The work of Mr. Clark, also that of Mr. Weedon, was a continuation of investigations which were begun by Professor Remsen some years ago. The latter led to the discovery of an interesting case of isomerism which cannot be accounted for by any of the ordinary conceptions of chemical constitution; while the former has helped to solve the problem of the relations of the two chlorides of orthosulphobenzoic acid. The work will be continued.

The work of Mr. Lindsay was under the guidance of Professor Jones. It has satisfactorily explained the apparently abnormal results which have hitherto been obtained in mixed solvents.

Professor Jones has redetermined, during the year, the atomic weight of lanthanum, finding it to be 138.77, a value somewhat higher than that hitherto accepted. He has also studied, with Mr. F. H. Getman, the abnormal lowering of the freezing points of concentrated solutions of electrolytes; and with Mr. C. G. Carroll, the lowering of the freezing point of aqueous hydrogen peroxide by certain salts and acids.

The work of Mr. Yamaguchi is a part of a larger investigation begun by Professor Morse some years ago.

Professor Morse and Dr. Frazer have been engaged upon the problem of the measurement of high osmotic pressures, a field which, hitherto, has been explored by indirect methods only. Considerable progress has been made during the year, the pressures measured having increased during that time from 67 to 471 pounds per square inch of cell surface.

Dr. Gilpin has begun an investigation of certain oxides of nickel.

Volumes XXVI and XXVII of the American Chemical Journal have been issued.

H. N. Morse,
Professor of Analytical Chemistry.
Geology.

During the past year the geological laboratory has been opened daily to both graduate and undergraduate students. Lectures and class-room work have been given as follows:

(a) General Geology, by Professor Clark and Dr. Shattuck. Four lectures and one afternoon in practical work each week throughout the year.

(b) Historical Geology, by Professor Clark. One conference, with essays, each week throughout the year.

(c) Paleontology, by Professor Clark and Dr. Martin. One conference each week and laboratory work daily throughout the year.

(d) Geological Physics, by Professor Reid. Two lectures each week throughout the year.

(e) Mineralogy, by Associate Professor Mathews. Four lectures and two laboratory exercises each week throughout the year.

(f) Petrography, by Associate Professor Mathews. Three lectures and two afternoons of laboratory work each week throughout the year.

(g) Stratigraphic and Structural Geology, by Mr. Willis. Two lectures each week, last third of the year.

(h) Geological Conferences. Weekly throughout the year.

Original Work and Publications. Original work was continued by Professor Clark, in conjunction with the U. S. Geological Survey and the Maryland Geological Survey, with the aid of several assistants, on various phases of the geology of the Middle Atlantic Slope as well as on the Carboniferous formations of western Maryland. An elaborate paper was published, jointly with Mr. A. Bibbins, on the Potomac Group in the Bulletin of the Geological Society of America, and another with Dr. G. C. Martin on the Coal Measures. Professor Clark was also actively employed in the management of the State Geological Survey and State Weather Service and in the supervision of the publications of those bureaus. He was also engaged as Commissioner on behalf of the State of Maryland in the supervision of the re-survey of the Mason and Dixon Line. Professor Clark also prepared, as the representative of the State Commission to the South Carolina Interstate and West Indian Exposition, a comprehensive exhibit of the mineral resources of the State, which received much recognition by experts at Charleston.

Professor Reid continued his study of the various problems relating to the differential movement of ice, as the result of many years of detailed investigation of the Forno glacier of Eastern Switzerland. As Chief of the Division of Highways of the Maryland Geological Survey, Dr. Reid has devoted much attention to a study of the various physical problems connected with the determination of the quality of road metals, and in directing the work of the Highway Division.

Associate Professor Mathews has been engaged, as heretofore, in the study of the various problems connected with the Piedmont belt of Mary-
land, his investigations the past year being mainly confined to Harford and Baltimore counties, where he had the assistance of several of the graduate students of the department. Dr. Mathews was also engaged, during much of the year, as Assistant State Geologist in directing certain phases of the State Geological Survey work and in editing its various publications.

Dr. Shattuck has been actively engaged during the past year in his study of the Neocene and Pleistocene deposits of the southern and eastern counties of the State. He has prepared several articles upon these subjects and has nearly completed a monograph on the Miocene formations of Maryland, in which he has had the cooperation of Dr. Martin and other members of the Survey staff, as well as of a number of experts connected with the U. S. Geological Survey and other organizations. Dr. Shattuck spent the month of May on leave of absence from the university in a reconnaissance study of the physiography of the Everglades of Florida and of the Bahama Islands. He also conducted a course of lectures in physiography in the Public Educational Course, which was largely attended by the teachers of the public and private schools of Baltimore.

Dr. Fassig has continued his study of the climate of Baltimore and has a monograph on the subject now well-advanced toward completion. He has also prepared two smaller papers on the climate of Cecil and Garrett counties, which represent special types in the Piedmont and Mountain country. Dr. Fassig, as meteorologist of the State Weather Service, has had the direction of many lines of work connected with that organization, in addition to his chief position as Section Director of the U. S. Weather Bureau.

Dr. Martin has devoted most of his time to the work of the Maryland Geological Survey and has completed during the past year the areal mapping of Garrett county. He now has ready for the press several papers relating to the geological structure and economic condition of this westernmost division of the State. Dr. Martin has also been engaged, with Professor Clark, in the preparation of a report on the coal deposits of Maryland and with Dr. Shattuck in the study of the faunal conditions of the Miocene and the Pleistocene. The publication of an article with Professor Clark on the Coal Measures has already been referred to.

Several other investigations were carried on by other members of the department and will result in later publications.

Excursions. Numerous short excursions were made during the autumn months into the country about Baltimore, in which the students were given an opportunity to see many of the characteristic features of the geology of the Coastal Plain and Piedmont Plateau. A more extended excursion was made in the spring, under the direction of Dr. Shattuck, to the Dismal Swamp and to the sand-dune districts near Cape Henry, Virginia.

Scientific Societies. The fortnightly meetings of the Geological Society of Washington were attended from time to time during the winter by the instructors and students of the department, all of whom were elected non-
resident members of that organization. The Society devoted a special meeting in May to contributions from the members of the geological department, in which both instructors and students participated. Several members of the department also became members of the National Geographic Society and availed themselves of its privileges.

Cooperation. Active cooperation was maintained, as in the past, with the chiefs of several of the National and State bureaus. The cooperation of the U. S. Geological Survey, through its chief, Hon. Charles D. Walcott, and of the U. S. Weather Bureau, through its chief, Professor Willis L. Moore, has been of much significance in the work of the university. Professor Clark has been for several years a member of the U. S. Geological Survey staff, engaged in the preparation of folios in the Coastal Plain region. For some years Mr. Bailey Willis, of the U. S. Geological Survey staff, has been granted leave of absence yearly to give a course of lectures upon stratigraphic and structural geology at the university. Dr. Fassig has also been permitted by Professor Moore to officiate as instructor in meteorology on the staff of the geological department, and Professor Cleveland Abbe has from time to time given special lectures on the principles of meteorology. Professor Moore has further appointed two of the students of the university as assistants in the Weather Bureau office, where they have an opportunity not only of learning the methods of Weather Bureau work, but also of securing important financial aid. Dr. L. A. Bauer is also permitted by the Superintendent of the U. S. Coast and Geodetic Survey to give a few lectures from time to time on the subject of terrestrial magnetism.

Apparatus and Collections. Several important additions have been made to the apparatus and collections during the year. The library has been considerably enlarged by gifts of books and maps.

WM. BULLOCK CLARK,
Professor of Geology.

The Biological Sciences.

During the past academic year the biological laboratory has been open for advanced and collegiate students, and lectures and class-room instruction have been given as follows:

By Professor Brooks:

Advanced Zoology. For graduate students. Weekly through the year.

Principles of Zoology. For graduate students. Forty lectures in January, February, and March.

Meetings of graduate students for reports on the current literature of Zoology and Botany. (With Dr. Andrews and Dr. Johnson.) Weekly through the year.

Elementary Zoology. Daily, from October 2 to the Christmas recess.
**Courses of Instruction, 1901–1902.**

By Dr. Andrews:
- General Biology. *Daily, to April 1.*
- Elements of Embryology. *Three times a week, from April 1 to end of session.*
- Comparative Embryology. *Daily, from April 1 to end of session.*

By Dr. Barton:
- Analysis of Plants. *Twice weekly, from April 1 to end of session.*

By Dr. Johnson:
- Morphology of Plants. For graduate students. *Two exercises weekly through the year.*
- Elementary Botany. *Daily, from January 8 to April 1.*
- Elective Course in Botany. *Two exercises a week, from January 8 to end of session.*

**ADVANCED WORK IN ZOOLOGY.**

Fellowships were awarded to R. P. Cowles, who has continued through the year a study of Phoronis, begun last year at the seashore; and to D. N. Shoemaker, who has continued, and completed, his study of Hamannellis. The Adam T. Bruce Fellowship was awarded to Dr. J. E. Duerden, who has continued, through the year, his studies of Corals.

The following researches have been carried on in the laboratory during the year: The Embryology of the Oyster; The Life-history of Bucephalus, a parasite of the Oyster; The Conditions which affect Natural and Artificial Oyster Beds; The Embryology of Mya; The Development of Echinoderms; The Life-history of the Olindeadelae; The Structure and Development of Coral Polyps; The Surface-fauna of Beaufort, N. C.; The Anatomy and Embryology of Phoronis; The Anatomy and Embryology of Annelids; The Annelids of Beaufort, N. C.; The Embryology of the Lizard; The Anatomy and Development of Arenicola.


Hertwig's Embryology has been read in course in the Zoological Seminar, which has held about fifty meetings during the year.

The degree of Doctor of Philosophy was bestowed upon H. F. Perkins, whose dissertation is on "Goniumems." Printed copies of the dissertations of Houser and Reese have been presented to our library in accordance with our rules, and the dissertation of Duoden is in press. The dissertations of Curtis, Coker, and Perkins are not yet printed.

A collection of about six hundred mounted butterflies has been presented to the laboratory by Dr. Howard A. Kelly, who has also provided wall-cases for the exhibition and preservation of the collection. The stuffed orang-outang, which was presented to the laboratory by F. W. Bostock, has been remounted by Ward, and, together with the skeleton, is now in the cabinet of the laboratory. A collection of photographs of some of our distinguished alumni has been framed and presented to the laboratory by Dr. E. A. Andrews and Dr. H. V. Wilson.

Physiology.

The courses in Animal Physiology during the year were conducted by Professor W. H. Howell, with the assistance of Dr. P. M. Dawson, Associate in Physiology, Dr. Joseph Erlanger, Instructor in Physiology, and Mr. P. G. Stiles, Assistant. The usual systematic course of lectures and demonstrations was given to the medical class. The lectures on Circulation were assigned to Dr. Dawson and the weekly recitation to Dr. Erlanger. This course extended throughout the year and was accompanied by laboratory exercises, which were given during the forenoons of October, November, and December. All the members of the staff took part in the laboratory instruction and gave their entire time to it in the mornings of the months mentioned. A second course of lectures, demonstrations, and laboratory exercises was given, three afternoons in the week from January to June, to a class of graduate students in the philosophical department. This course was conducted by Professor Howell and Mr. Stiles, and was accepted as fulfilling the requirements of a subordinate subject for the degree of Ph. D. The Journal Club composed of instructors and advanced students met weekly as usual, and once a week in the evenings the Seminar met to read and discuss Foster's History of Physiology. A number of researches have been in progress during the year upon the following subjects: The proteid constituents of blood-serum; a study of the physiological conditions in surgical shock; a study of the effect of infusions, shock, and other conditions on systolic and diastolic blood-pressure; the chemistry of keratin; the effect of operations in the middle ear upon the heart and blood-pressure; a study
of the effect of removal of the semi-circular canals, particularly as regards susceptibility to vertigo; the effect of variations in the potassium and calcium salts of the blood upon the inhibition of the heart. Some of these investigations have been completed and the results prepared for publication.

**Advanced Work in Botany.**

Researches have been carried on in the laboratory, under the immediate supervision of Dr. D. S. Johnson, upon the development of certain flowering plants. Short papers have been published in the *University Circulars* upon: "The Embryo-Sac in Piper and Heckeria," "The Germination of Peperomia and Heckeria," and "The Development of Hamamelis." Longer papers on these forms, with plates, will be published elsewhere during the summer or early autumn.

During the summer of 1901, Dr. Johnson spent five weeks in Munich, in work upon certain peculiar alpine Caryophyllaceae, which it is hoped can be finished and published during the next academic year.

The botanical work in the "Public Lecture Course" has been conducted by Dr. Johnson and Mr. Shoemaker.

**WILLIAM K. BROOKS,**

*Professor of Zoology.*

**W. H. HOWELL,**

*Professor of Physiology.*

**Greek.**

Under the direction of Professor Gildersleeve the advanced students of Greek have been organized into a Greek Seminary. According to the plan of the Seminary, the work of each year is concentrated on some leading author or some special department of literature. During the past year the centre of work was Plato, and the members, who met twice a week as a Seminary, were required to present in turn exegetical and critical commentaries on select dialogues, to make analyses of the same, and to prepare introductory lectures and papers on special points.

The work of the Seminary was accompanied by a course of lectures on Plato and supplemented by a series of conferences on the History of Greek Philosophy, Ritter and Preller being the basis, with constant reference to the development of philosophic style.

Besides the Seminary course proper, Professor Gildersleeve conducted a series of twenty exercises in extemporaneous translation from Greek into English and English into Greek, and, from the beginning of January to the close of the session, lectured once a week on select chapters of Greek Syntax, and conducted weekly readings in the Iliad and the Odyssey.
Associate Professor Miller conducted readings twice a week in the Republic of Plato (first half of the session) and in the Nicomachean Ethics of Aristotle (second half of the session), and gave a series of exercises in advanced Greek Composition for the benefit of candidates for the degree of Doctor of Philosophy.

Undergraduate courses were conducted as follows:

**Associate Professor Spieker:**
- Plato, Protagoras. *Three times weekly, first half-year.*
- Lyric Poets; Sophocles, Antigone. *Three times weekly, second half-year.*
- Andocides, de Mysteriis. *Three times weekly, first half-year.*
- Lysias, Epitaphius; Euripides, Hippolytus. *Three times weekly, second half-year.*

**Prose Composition (two classes).** *Weekly, through the year.*

**Associate Professor Miller:**
- Prose Composition. *Weekly, through the year.*

Undergraduates read privately for examination the following books:

- Aristophanes, Clouds.
- Aeschylus, Prometheus.
- Homer, Iliad, books xvi, xviii.
- Xenophon, Hellenica, book I.

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**Latin.**

The organization and plan of the Latin Seminary are similar to those adopted in the department of Greek. Under the direction of Associate Professor Smith it met twice a week throughout the year for special study and investigation of the Roman Epic, more particularly, the Aeneid of Vergil.

Besides the Seminary course and the auxiliary work, Associate Professor Smith lectured once a week throughout the year on the history of Roman Epic Poetry. During the first half-year he lectured once a week on selected elegies of Propertius and Ovid, and in the second half-year, on the technique and historical development of the Roman Hexameter. He also conducted a Journal Club, which met fortnightly to report and discuss recent work of interest in the field of Greek and Latin philology.

Dr. H. L. Wilson lectured once a week during the first half-year on Latin Epigraphy, and for the remainder of the session on Latin Pronun-
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citation. He also conducted a class for advanced students in the rapid reading of the Roman Epic Poets, more especially Catullus, lxiv, Lucan, Valerius Flaccus, Statius, and Claudian.

Undergraduate courses were given as follows:

By Associate Professor Smith:
History of Roman Literature. Weekly, through the year.

By Dr. Wilson:
Seneca, Tragedies. Two hours weekly, second half-year.
Catullus; Tibullus. Three hours weekly, first half-year.
Plautus; Terence. Three hours weekly, second half-year.
Prose Composition. Weekly, through the year.

By Dr. Guernsey:
Livy, books xxi and xxii. Three hours weekly, first half-year.
Horace (selections). Three hours weekly, second half-year.
Prose Composition. Weekly, through the year.

By Associate Professor Spieker:
Cornelius Nepos. Two hours weekly, first half-year.
Ovid (selections); Cicero, De Senectute. Two hours weekly, second half-year.
Prose Composition. Weekly, through the year.

Undergraduates read privately for examination the following books:
César, Bellum Civile, book i.
Cicero, De Amicitia.
Ovid, Fasti (selections).
Vergil, Aeneid, books ix and xii.
Propertius.
Plautus, Miles Gloriosus.

Kirby Flower Smith,
Associate Professor of Latin.

Sanskrit and Comparative Philology.

The event of special interest in this part of the University's work was the publication, at the opening of the academic year, of the Kashmirian Atharva-Veda, the so-called Pippalāda-Veda. This is a reproduction in color-photography (chromophotography) of a birch-bark manuscript, written in Čārāda character, of the Atharva-Veda as known in Kashmir, in northermost India. Three quarto volumes, containing about 550 plates, present this text in a convenient and handsome form. More than twenty-five years ago, through the efforts of the late Professor Rudolf von Roth, the manuscript, after sundry vicissitudes, had come to Tübingen. Certain facts concerning the text were communicated by him to the public at
various times, and to him the present publication is fitly dedicated. It seemed to me some years ago that it might be possible to publish so important a text, in order that its contents might be fully accessible. With the hearty cooperation of the authorities of the Johns Hopkins University, and later also of the University of Tübingen, the work was carried through under the joint editorship of Professors Bloomfield and Garbe, the latter being Professor von Roth's successor to the chair of Sanskrit in Tübingen. The preface to the work is reprinted conveniently in the Johns Hopkins University Circulars, Vol. XXI, Nr. 155, p. 25 ff.

In the natural course of events it falls to the lot of the first editors to continue the work in the direction of a transliterated critical edition and translation of this new Veda. Hence this work was made at once the theme of the Vedic Seminary. Considerable parts of the first book were deciphered, translated, and compared with the other Vedas. A dissertation derived from these efforts may be expected before long, and in one way or another the study of the Pāippalāda is likely to hold a prominent place in the immediate future of Sanskrit studies at this University.

A second advanced course in Indic studies, under the direction of Professor Bloomfield, was devoted to Pāli, the sacred language of the Southern Buddhists, and to Buddhist literature. It was opened by half a dozen systematic lectures on the origin and character of Buddhism; these were followed by abundant selections from Pāli literature. The course was the first of the kind at this University: it proved useful enough to justify its continuation next year.

An elementary course of Vedic study was carried on during the second half-year under the instruction of Professor Bloomfield and Dr. Ness, Fellow by Courtesy. Its object was to introduce into the language and literature of the Vedas, and to correlate the Vedic language with the classical Sanskrit dialect. A preliminary study of Vedic grammar was followed by the interpretation of selected specimens of the Rig-Veda. The metres, the accent, the special phonetic, morphological, and lexical peculiarities of the Vedic language claimed the chief attention.

To the study of Classical Sanskrit were given four hours a week during the first semester, and two during the second. The subjects were readings from the Nala, the Hitopadeśa, and the law-book of Manu, including the regular beginners' course of two hours weekly during the session. The latter is the formal introduction to the study of Indian philology, as well as of the Comparative Grammar of the Indo-European languages. Dr. Ness and Mr. Barret, the Fellow in Sanskrit, took part in these instructions.

The work in Comparative Philology was three-fold. First, a course of lectures on General Comparative Philology. This began with a sketch of the linguistic ethnology of the Indo-European peoples, dealing with their ethnical interrelations, their early geography (the so-called Aryan question), and their common characteristics. Then came in brief survey
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sketches of India, the Vedas, Brahmanism, Buddhism; Iran, the Achemeni-
dan inscriptions, the Zoroastrian (Avestan) religion; the Indo-European
peoples on the boundary line between Asia and Europe; the European
peoples. This was followed by lectures and readings on the history and
principles of Linguistic Science.

A course in Comparative Grammar of the Indo-European languages
dealt with the history of the vowels, with more particular reference to
Greek, Latin, German, and Sanskrit. Especial attention was given to the
new shaping of the so-called ablaut (vocalic variation), consequent upon the
theory of disyllabic roots or stems in the Indo-European languages.

Dr. J. A. Ness conducted during the second semester an elementary
course in Lithuanian, one of the family of Balto-Slavic languages.

MAURICE BLOOMFIELD,
Professor of Sanskrit and Comparative Philology.

Oriental Seminary.

Twenty-eight courses in the various departments of Oriental research
were given, under the direction of Professor Haupt, during the past year,
special attention being paid to the interpretation of the Bible and to
Oriental History and Archaeology.

Thirteen hours weekly during the first half-year, and fourteen hours
weekly during the second, were devoted to the study of Hebrew and the
Old Testament. In the Old Testament Seminary Professor Haupt gave a
Critical Interpretation of the Song of Songs. This new interpretation, inclu-
ding a new rhythmical translation and a restoration of the Hebrew text,
with critical and explanatory notes, is printed in Vol. xviii, No. 4, and
Vol. xix, No. 1, of the Am. Journal of Semitic Languages. Professor Haupt
also conducted a series of exercises in Hebrew Prose Composition, the
students translating idiomatic English sentences into Hebrew, and gave a
course in Comparative Hebrew Grammar, with special reference to the pro-
noun and the verb. Dr. Blake, Fellow in Oriental Languages, conducted
a class in Hebrew Grammar, throughout the year, and gave a grammatical
analysis of the Book of Ruth, during the second half-year. Dr. Rosenau
met a class, throughout the year, for reading Hebrew at sight and for
reading unpointed texts. He also conducted a series of exercises in Hebrew
Conversation, throughout the year. The instruction in Elementary Hebrew,
two hours weekly, throughout the year, was given by the Rayner Fellow,
Dr. Foote, under the supervision of Professor Haupt. A series of lectures
on the Literature of the Old Testament, on the basis of the Authorized Ver-
sion, was given by Professor Haupt and Dr. Foote, throughout the year,
while Associate Professor Johnston lectured, throughout the year, on the
History of the Ancient East, with special reference to the History of Israel. Associate Professor Johnston also gave a series of lectures on Biblical Archaeology, during the first half-year, and on the Historical Geography of Palestine, during the second half-year.

The courses in Post-Biblical Hebrew were conducted by Dr. Rosenau, a class meeting two hours weekly, throughout the year, for the study of the Mishnah and Talmud. Dr. Rosenau also gave, during the first half-year, a series of lectures on Jewish Ceremonial Institutions, illustrated by specimens from the Sonneborn Collection of Jewish Ceremonial Objects.

In Biblical Aramaic, Professor Haupt gave a critical Interpretation of the Book of Daniel, throughout the year.

The instruction in Syriac was given by Associate Professor Johnston, while Professor Haupt conducted a series of exercises in Syriac Prose Composition.

In Arabic, Professor Haupt conducted a weekly course of exercises in Prose Composition, while Associate Professor Johnston interpreted selections from the Arabian Nights and the Arabic Geographers, two hours weekly, throughout the year. The instruction in Elementary Arabic was given by Dr. Blake; and the Fellow in Semitic, Father Oussani, explained selected stanzas of the Koran, during the second half-year, and conducted a course of exercises in Arabic Conversation, throughout the year.

In Ethiopic, exercises in Prose Composition were conducted by Professor Haupt, weekly throughout the year, while Dr. Blake had charge of the instruction in Elementary Ethiopic.

To the study of Assyriology, five hours weekly were devoted throughout the year. Professor Haupt interpreted selected Sumerian Hymns and Pentential Psalms, and gave a course in Comparative Assyrian Grammar. He also conducted weekly exercises in Cuneiform Prose Composition, the students rendering Hebrew and Arabic sentences into Assyrian. Assyrian and Babylonian Historical Inscriptions were studied under the guidance of Associate Professor Johnston, while the course in Elementary Assyrian was in charge of Dr. Foote.

The courses in Egyptology were given by Associate Professor Johnston. A class met weekly throughout the year for the study of Hieroglyphic Texts, and one hour weekly throughout the year was devoted to the interpretation of selected Hieratic Papyri. In the second half-year, a course in Elementary Egyptian was also given by Associate Professor Johnston.

A class in Tagalog, the most important native language of the Philippine Islands, was conducted by Dr. Blake, throughout the year, instruction being given in Tagalog Grammar, combined with practical exercises. A Tagalog Manual for practical purposes has been prepared by Dr. Blake, and will be published in the Journal of the American Oriental Society. During the second half-year Dr. Blake also gave a series of lectures on the Philippine Islands, with special reference to the ethnological and linguistic features of the Archipelago.
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It is hoped that one or two volumes of the critical edition of the Hebrew text of the Bible, which have been in preparation for some time, viz., Professor Stade's edition of the Book of Kings, and Professor George A. Smith's edition of Deuteronomy, will be published before the end of the year.

The last part of the fourth volume (587 pp. with 32 plates and engravings) of the Contributions to Assyriology and Comparative Semitic Grammar, edited, with the cooperation of the Johns Hopkins University, by Professor Haupt in conjunction with Professor Friedrich Delitzsch, of Berlin, appeared at the end of the session. It contains a valuable paper on the Neobabylonian law by the learned jurist Professor J. Kohler, of the University of Berlin, with special reference to the Babylonian legal documents of the times of Cyrus and Cambyses, translated by Demuth and Ziemer in the third volume of the Beiträge; —some remarks on the Elamite sign for God, by F. Bork; — a translation, with grammatical, syntactical, and lexicographical comments, of the letters of Hammurabi (i. e. Amraphel, Gen. xiv. 1, about 2250 B.C.) to the governor of Southern Babylonia, Sinidinnam, by G. Nagel, followed by some additional notes, from the pen of Professor Delitzsch, including some remarks on the civilization of Babylonia at the time of Hammurabi (pp. 498–500); — an interesting selection of Assyrian and Babylonian letters transliterated and translated by C. van Gelderen; — some remarks on certain monetary terms of the ancient Babylonians, by F. Hrozný (these terms have a special interest, since the Babylonians were the fathers of commerce: many institutions prevailing in our banks and exchanges may be traced to Babylonia); — a translation, with notes, of 50 legal and administrative documents of the time of Artaxerxes I., B.C. 464–424, (disinterred, toward the end of May, 1893, during the American excavations at Nippur, southeast of Babylon) by a Catholic scholar, E. Kotalla; — a paper on the spoken Arabic of Morocco, by Budgett Meakin; and a paper on the Hebrew term sidīst, by Professor Haupt.

The following papers were presented by members of the Oriental Seminar at the annual meeting of the American Oriental Society, held in Boston, April 1902: Professor Haupt, (a) Biblical Love-ditties (published in The Open Court, May, 1902), (b) The Name Palm, (c) The Septuagintal Phrase ἢ ζωομενης, (d) An Erotic Poem of Samuel Hanagd; Dr. Blake, (a) The Principal Dialects of the Philippine Islands, (b) Outlines of Tagalog Grammar, (c) Points of Contact between Semitic and Tagalog; Dr. Foote, (a) Note on 2 Kings 6, 6, (b) Parallels in Latin Poets to the Song of Songs; Mr. Oussani, (a) Popular Superstitions in Early Arabia, (b) Mohammedan Parallels to the Song of Songs, (c) An Unpublished Christian Arabic Legend of Seif-el-Mesh (Sword of the Messiah); Mr. Seiple, Theoritean Parallels to the Song of Songs; Mr. Ember, (a) The Pronunciation of Hebrew among the Russian Jews, (b) Talmudic Parallels to the Song of Songs.

Before the Society of Biblical Literature and Exegesis, at its meeting in New York, December, 1901, the following communications were presented.
by members of the Oriental Seminary: Professor Haupt, (a) Difficult Passages in the Song of Songs, (b) The Hebrew Phrase $r\ddot{\text{o}}\ddot{\text{k}}\ddot{\text{e}}\ddot{\text{t}}\ddot{\text{m}} \ \ddot{\text{g}}\ddot{\text{o}}\ddot{\text{\textmd{m}}} \ddot{\text{d}}\ddot{\text{t}}\ddot{\text{m}}$ in 2 Ki. 9, 25 (both papers are published in Vol. xxi of the Journal of Biblical Literature); Dr. Foote, Ephod and Teraphim; Mr. Oussani, Arabic Parallels to the Song of Songs.

Before the University Philological Association, members of the Oriental Seminary read the following papers: Professor Haupt (Oct. 18), Theological Glosses in the Wisdom Literature of the Old Testament,—(Jan. 17), Erotic Poetry in the Old Testament; Professor Johnston (Apr. 18), Ancient Egyptian Love-ditties,—(May 16), On Some Greek Transliterations of Cuneiform Texts; Dr. Blake (Mar. 21), The Languages of the Philippine Islands.

Messrs. Frank R. Blake and Theodore C. Foote presented themselves as candidates for the degree of Ph. D. The dissertation of Mr. Blake was on The So-called Intransitive Verbal Forms in the Semitic Languages, and Mr. Foote's was devoted to a study of The Hebrew Ephod. Mr. Foote's dissertation appeared in Vol. xxi of the Journal of Biblical Literature. Mr. Blake's subjects were Semitic Philology, Sanskrit, and German; Mr. Foote's Hebrew, Assyrian, and Latin.

The tenth course of the Percy Turnbull Memorial Lectures on Poetry was given by Professor Emil G. Hirsch, of the University of Chicago, who delivered eight lectures on Medieval Jewish Poetry (Apr. 8–17): I. General Introduction. II. The Mental Horizon. III. The Earlier Poets. IV. Solomon Ibn Gabirol. V. Giat; Bechai; Moses Ibn Ezra; Judah Halevi. VI. Judah Halevi (continued). VII. Abraham Ibn Ezra; Solomon Halevi Alkabaz; Harizi. VIII. Harizi (continued); Abraham Ibn Khisdai; Immanuel; Kalonymous. Professor Samuel Ives Curtiss, of the Chicago Theological Seminary, also lectured (Apr. 23) on the Deification of Men, with special reference to primitive Semitic religion as a basis for divine revelations in the Old and New Testaments.

The library of the Oriental Seminary was enriched by the gift of numerous volumes presented by Leopold Strouse, Esq., of Baltimore, and a number of valuable Jewish ceremonial objects will be added to the Sonneborn Collection before the close of the year.

Paul Haupt,
Professor of the Semitic Languages.
Courses of Instruction, 1901-1902.

English.

1. Advanced Courses.

The English Seminary was conducted by Professor Bright. Four hours a week (in two sessions) throughout the year were given to the study of the Complete Works of Chaucer. This study was based upon the publications of the Chaucer Society, with the help of Professor Skeat's comprehensive edition, which determined the order in which the Works were considered. The Seminary numbered twenty-one members. Each member made a critical study of one or more of the 'Minor Poems' and of one or more of the larger Works, and contributed to the investigation of questions relating to the 'Canon,' to the 'Chronology of the Works,' to the 'Life-Records,' to the 'Sources,' and to the author's 'Language and Metre.'

Professor Bright lectured twice a week throughout the year on selected topics in English Grammar. Beginning with a comparative treatment of word-accent and sentence-accent in the Indo-European languages, the Germanic accent of word, phrase, and sentence was considered in its effects upon the history of grammatical and metrical forms. Middle English phenomena then received special attention, especially the language and metre of Chaucer; and special chapters in English vocalism were considered in 'Conferences,' to which members of the class contributed summaries and reports of the history of investigations of the subject.

The Journal Club (fortnightly, two hours) was conducted by Professor Bright as an adjunct to the English Seminary. In addition to the regular reports of the class-periodicals, special attention was accordingly given to Chaucerian problems.

Professor Browne delivered two courses of lectures (weekly, throughout the year). One was on American Literature before the Civil War. The reasons for the singular retardation of this literature, while that of the mother-country moved with such steady progress, were shown, with reference to the North and to the South; entirely different conditions leading to the same result. The leading writers of the early and late colonial periods, of the Revolutionary period, and of the first half of the nineteenth century were treated, and the beginnings of a peculiarly American literature, not founded on local peculiarities, but expressing the tendencies of American thought, were considered. The second course treated the development of the English drama from Dryden to Sheridan.

2. College Courses.

The English major class met Professor Bright, twice a week, for the study of Anglo-Saxon, using as a text-book Bright's Anglo-Saxon Reader.

This class also met Professor Browne twice a week. One hour weekly was given to the study of the Scottish Poets from Barbour to Lyndsay, with readings by the class from their works, and one hour weekly to (a) the Elizabethan poets, especially Shakespeare, and (b) the literature of the fourteenth century.
The English minor class was conducted by Professor Browne. The class studied Early and Middle English texts (two hours a week) using Morris and Skeat’s Specimens as the text-book, and English literature (two hours a week), using Arnold’s Manual of English Literature.

A class in Rhetoric and English Composition met three times a week throughout the year. During the month of October this class was conducted by Professor Greene. Early in November the class was divided, upon the basis of rank, into two sections; the second section was taught by Mr. John C. French. Theory was imparted by means of text-book (A. S. Hill’s Principles of Rhetoric), lectures, and discussions; practice was obtained by the writing of about sixty short papers, of which a few from each set were read and criticised in the class-room, and by the writing of five essays, three of which (one in each term) were read and criticised privately with the writers. The weekly practice in writing was combined with an examination of the usage of standard writers. Each member of Section A made a careful study of the style of one prose author (usually of a nineteenth century author), and presented the results of his study in a series of short papers. The class-work included a study of representative passages of description and narration (Baldwin’s Specimens of Prose Description; Brewster’s Specimens of Narration). The members of Section B made a careful study of specimens of standard prose, as contained in Brewster’s Studies in Structure and Style, and presented a series of short papers containing the results of their study. The members of both sections read the poems contained in Palgrave’s Golden Treasury of Songs and Lyrics, and wrote a series of short papers upon topics suggested by their reading.

Mr. Raymond D. Miller conducted, once a week, a class in English Composition, intended primarily to supply additional instruction for students in special need of further training. In addition to those who were required to follow the course, a number of students voluntarily improved the opportunity thus afforded them.

A class in English Literature met Professor Greene three times a week, throughout the year. This class made a general survey of English Literature from the beginning to the first quarter of the seventeenth century. A detailed study was made of the works of Chaucer, Spenser, and Shakespeare. Of the writings of these poets, a considerable amount was critically studied in the class-room; and more was read by the members of the class in their private reading. Each member of the class prepared two essays and three short papers. In addition to the regular class-room exercises, four readings from the poems of Chaucer and twelve lectures upon the dramas of Shakespeare were given for the benefit of those members of the class who desired to attend them.

An elective course in English Literature was given by Professor Greene, two hours a week, throughout the year. During the first half-year the study was centered upon the works of Dryden, Steele, Addison, Swift, and Pope; during the second half-year, upon the works of Wordsworth, Cole-
ridge, Keats, Shelley, and Byron. In connection with the weekly lectures and discussions the members of the class did a large amount of private reading. Each student prepared and read before the class, during each half-year, a paper upon one of the principal writers studied.

3. Public Lectures on Literature.

The tenth course of the Percy Turnbull Memorial Lectures on Poetry was given by Emil G. Hirsch, D. D., LL. D., Professor of Rabbinical Literature in the University of Chicago. The subject of the course was "Medieval Jewish Poetry." The topics of the lectures were: (1) General Introduction; (2) The Mental Horizon; (3) The Earlier Poets; (4) Solomon Ibn Gabirol; (5) Gint; Bechail; Moses Ibn Ezra; Judah Halevi; (6) Judah Halevi (continued); (7) Abraham Ibn Ezra; Solomon Halevi Alkabaz; Harizi; (8) Harizi (continued); Abraham Ibn Khisdai; Immanuel; Kalonymous.

JAMES W. BRIGHT,
Professor of English Philology.

WILLIAM HAND BROWNE,
Professor of English Literature.

HERBERT EVELETH GREENE,
Collegiate Professor of English.

German.

The German Seminary, under the direction of Professor Wood, met three times weekly, through the year. During the first half-year Goethe's Lyrical Poems were studied, and the attempt was made to trace the development of Goethe's art from the publication of the Leipziger Liederbuch to Goethe's journey to Italy. The subject for the second half-year was the Nibelungenlied. The recent investigation of Branne on the grouping of the manuscripts and the development of the poem as a whole was studied in detail, and the first half of the work was interpreted in the seminar.

The Germanic Society, which is composed of the Director of the Seminary and the instructors and graduate students in German, held fifteen meetings during the year, in an afternoon session. Besides reviews and reports, the following papers were read, some of them presenting completed investigations, and others giving preliminary results of studies still in progress: Middle High German Court Epic and popular epic compared in their use of the future tense; bigan and bigomda in Old High German, as distinctive of poetry and prose; forms of address in Early Middle High German, as compared with their use in Early French; the style and phraseology of Genesis in Tindale and the Authorized Version, as compared with Luther; Walther's twelfth group of Bible translations; the
German.

souces of Gerhart Hauptmann's *Versunkene Glocke*, as *Märchen-drama*; the influence of Laurence Sterne upon Johann Georg Jacobi.

Professor Wood gave, in addition, the following graduate courses:
1. History of German Literature from 1870 to 1900. Twice weekly, first half-year, weekly, second half-year. The attempt was made in this course to show that the best authors of the new school stand in closer connection with literary movements in the early part of the century than with the later writings of the so-called liberal school. This was shown in detail in a comparison of Gerhart Hauptmann's *Versunkene Glocke* with the writings of Mörke, the results of which were presented in a paper read before the University Philological Association, at its December meeting.
2. Old Saxon. Weekly, through the year.
   The phonology and morphology of the language were studied in the handbook of Holthausen, after which selected portions of the *Helland* and of the fragments of Genesis were interpreted.
3. Gothic and the Elements of Comparative German Grammar. Twice weekly, through the year. Braune's *Gotische Grammatik* was studied, after which parts of Ulflas were interpreted, with Bernhardt's larger edition and Heyne-Wrede as a basis. Kluge's *Vorgeschichte der altgermanischen Dialekte* was read in part, and was accompanied by practical exercises designed to illustrate the principles of sound-change and word-formation for the several Teutonic languages.

In the undergraduate major course, Professor Wood conducted a class, in Goethe's *Faust* and in Schiller's *Wallenstein*, twice weekly through the year. The third part of the trilogy, *Wallenstein*'s *Tod*, was assigned as private reading. In the minor course A, he conducted weekly exercises in prose composition.

Associate Professor Vos conducted a class in Middle High German, twice weekly, during the first half-year. After a study of Phonology, Inflection, and Syntax in Paul's *Mittelhochdeutsche Grammatik*, selections were read from Bachmann's *Mittelhochdeutsches Lesebuch*. In the study of grammar special attention was paid to the relation of Middle High German to Modern German, and an attempt was made to formulate the main tendencies at work in the simplification and re-grouping of noun and verb-classes.

He also gave a course, twice weekly, during the first half-year, in Old High German. The text-books used were Braune's *Althochdeutsche Grammatik* and *Althochdeutsches Lesebuch*. The grammar was studied with special reference to dialect differentiation, and this same point of view was emphasized in the examination of connected texts, representative prose monuments of each dialect being read.

During the second half-year, he lectured twice weekly on Middle High German literature, the order of treatment followed being that of Vogt's *Mittelhochdeutsche Literatur* in the second edition of Paul's *Grundriss der germanischen Philologie*. The epic alone was considered. In connection with the individual works much time was devoted to the presentation of
problems still awaiting final solution. The lectures are to be continued during the coming year.

The following undergraduate courses were conducted by Associate Professor Vos:

History of German Literature (Major Course), with especial reference to the Classical Period. A printed outline was furnished the class and illustrative extracts were read from Viehoff's Handbuch der deutschen Nationalliteratur.

In the minor course A, the following works were read in class: Seidel, Erzählungen; Baumbach, Erzählungen und Märchen; Schiller, Maria Stuart; Goethe, Hermann und Dorothea. Sudermann's Frau Sorge was assigned as private reading.

In the elementary course, for students in the preliminary year, the grammar was studied in an outline, in mimeographed form, prepared by the instructor. Vos's Materials for German Conversation were used both for drill in the use of spoken German and for early reading. Heyse's L'Arrabbiata was read in addition.

Dr. T. S. Baker, Professor in the Jacob Tome Institute, gave a course of lectures, weekly, through the year, on the influence of English literature on German literature in the eighteenth century.

Dr. Kurrelmeyer gave undergraduate and special courses, as follows:

Minor Course, Class B. Four hours weekly. Otis, Elementary German (First Part); Brandt, German Reader (40 pp.); Keller, Kleider machen Leute; Goethe, Egmont; E. S. Buchheim, Elementary German Prose Composition; Whitney, German Grammar.

Elective Course. Two hours weekly. Readings in Contemporary German Literature: Suderman, Frau Sorge; v. Ebner-Eschenbach, Krumbombuli; Die Freiherr von Gemperlein; v. Wildenbruch, Das edle Blut, Der Letzte, Harold; Hauptmann, Die versunkene Glocke.

Scientific German Readings. Two hours weekly. Dippold, Scientific German Reader (150 pp.); v. Helmholtz, Goethe's Naturwissenschaftliche Arbeiten.

Historical Readings. Two hours weekly. Hoffman, Historische Erzählungen; Seiler, Die Heimat der Indogermanen; Prehn, Journalistic German (75 pp.).

Mr. Julius Hofmann conducted, in the major course, weekly exercises in prose composition. He also met a class of graduate students, twice weekly, for oral exercises in German, Vos's Materials for German Conversation being used as a basis. Special attention was paid to synonyms and idioms, to the attaining of a correct German accent, and to the geography of Germany. In a course of oral exercises for undergraduates, weekly through the year, the same book was used, special attention being paid to a free reproduction of the stories, on the part of the members of the class.

Henry Wood,
Professor of German.
Romance Languages.

I. Graduate Courses:

Professor Elliott conducted advanced courses as follows:

Romance Seminary. Two hours a week, through the year.

The work centered here on the Fables of Marie de France, the object of course being to acquire a working knowledge of the fable literature of antiquity, and the middle ages; to become acquainted with the characteristics of the Norman and Anglo-Norman dialects in which some of the more important manuscripts are written; to present the fundamental principles of text-criticism and text-constitution, for which four fables were examined. A clear view of the morphology and phonetics of the language was obtained as contrasted with those of the Isle-de-France, likewise of the O. Fr. construction as compared with that of the modern French. In addition to this, a careful investigation of the relation existing between the medieval bestiaries and Æsopic fable literature was made on the basis of the manuscript sources.


The object here was to give the student an introduction to the phonetics and morphology of Folk and Low-Latin as the common basis for a scientific study of the Romance idioms. Meyer-Lübke's treatment of the subject in Gröber’s Grundriss der romanischen Philologie was taken as the starting-point for this work, in connection with which lectures were given, contrasting the popular forms with the historic development of the classical forms.

Romance Club. Weekly.

The object of this organization, to which all members of the Romance Language department belong, is to foster a common interest in everything that concerns the study of the Romance idioms. Reviews of important journal articles, papers on original investigations, discussions of literary and scientific subjects, reports of correspondence of a professional nature, represent the chief exercises that claim the attention of the club.

French Dialects. Weekly.

The dialects especially considered were the Norman, Picard, and Wallon. The method of work was, to a great extent, practical, and had in view a sufficient acquaintance with dialect forms to enable the student to discriminate Old-French texts belonging to these different idioms. To this end the leading characteristics of the old and the modern dialects were presented in a few lectures: then, through the use of early and later texts, the student was required to recognize and name the dialect features as they occurred.

Lectures on Dante. Weekly.

The object of this course was to give the student a survey of the Dante science of to-day. In a few introductory lectures he was made acquainted
with the leading philosophical and literary tendencies of Dante's time, the
Inferno and Purgatorio ideas before the author's epoch. The Inferno, Pur-
gatorio, and Paradiso were analyzed and presented in detail, both with
reference to the previously existing ideas of punishment and recompense
and to those peculiar to Dante.

Professor F. M. Warren, of Yale University, gave twenty lectures in
December and January on the Romans d'Aventure of mediaeval France.
Attention was particularly called to the sociological features of the poems
analyzed. The rarity of the sources which gave them their plots were
noticed, their literary ideals, and their position in the body of mediaeval
compositions.

The same lecturer delivered a course of six lectures on the modern Realists
and Naturalists. An analysis of the beginnings and leading principles of
French Realism was followed by discussions of the writings of Stendhal,
Balzac, Flaubert, the De Goncourt, Daudet, Zola, Loti, and other contem-
poraneous authors, as illustrating the tendencies of the school.

Associate Professor Marden conducted the following courses:

Spanish Seminary. Weekly.

The work of the Seminary consisted in a study of the language of
Cervantes' Don Quijote. The students submitted reports on various syntac-
tical subjects, and these reports, together with the consequent discussion
and criticism, were the means of settling several important points in regard
to Cervantes' language and its position in the historical development of
Spanish.

Spanish Philology. Twice weekly.

Baist's article in Gröber's Grundriss der Romanischen Philologie was taken
as the basis for a series of lectures on Spanish phonology and morphology.
Every fourth meeting was a quiz, for which the students prepared selected
passages in the Poema del Cid, and made practical application of the laws
deduced in the lectures.

Old Spanish Readings. Weekly.

The class began by reading selected passages in Gorra, Lingua e Lettera-
tura Spagnuola delle Origini, after which the following texts were read in
full: El Misterio de los Reyes Magos, Romance de Lope de Moros, and the
Poema del Cid.

Spanish Epic. Weekly.

This course consisted in a series of lectures on the national epic in con-
trast to the later artificial productions. A study was made of the early
ballad literature as well as the full length epic poems, and the material was
grouped around such national heroes as Rodrigo, the Infantes de Lara,
Bernardo del Carpio, Fernan Gonzalez, and the Cid. A special feature of the
course was a study of the prose chronicles as a source of the early epic
poems.
Associate Professor Armstrong conducted the following courses:
French Phonology and Morphology. Three hours weekly.
Old-French sounds and inflexions were studied with especial reference
to their historical connection with Folk-Latin and with modern French.
Only the language of Central France was considered in detail. Two hours
each week were given to lectures; a third was employed in grammatical
analysis of portions of the text of La Vie de St. Alexis and of Aucassin et
Nicolete.

French Syntax. Two hours weekly.
The nature and functions of the French substantive and adjective were
considered. Constant effort was made through comparison of Latin and
the successive periods of French to trace the influences and tendencies
which have given form to the contemporary idiom.

A brief view of general principles and of existing phonetic schools was
followed by a description of the organs of speech and a detailed examina-
tion of the mode of formation of French sounds. Practical exercises were
given, based on texts in ordinary and in phonetic transcription.

Readings in Old-French Literature. Weekly.
The texts read were chosen with a view to furnishing an introduction to
various types of Old-French literature. They included La Vie de St.
Alexis, Aucassin et Nicolet, and portions of La Chanson de Roland, Les Lais
de Marie de France, and of Joinville's Histoire de St. Louis.

Dr. Keidel conducted the following courses:
Romance Methodology. Weekly, first half-year.
The general principles of proof-reading, library research, and bibliogra-
phy were explained and fully illustrated by numerous concrete cases of
actual personal experience, while special stress was laid on the methods to
be employed in the preparation of a thesis and the writing of book reviews.

Romance Palaeography. Weekly, second half-year.
A short and succinct account was given of the various schools of writing
developed on Romance territory during the middle ages, followed by prac-
tical exercises in the deciphering of facsimiles of Old-French manuscripts.
This course was intended to fit students for work in copying medieval
manuscripts, and for the subsequent interpretation of the material thus
obtained according to scientific canons of criticism.

Dr. Shaw conducted the following courses:
Italian Phonology and Morphology. Three hours weekly.
This course consisted of the dictation of lectures which, in the main,
followed the lines of the Italian grammar of Meyer-Lübke. The new
edition, prepared by Bartoli and Braun, was fully utilized. The rest of
the material was chiefly based on the grammar of the Romance languages.
The Poets of the "Dolce Stil Nuovo." Weekly.

No especial study of Dante was made in this course, reference being made to his work, however, continually. After a brief review of the origins of poetry in Italy, and the early Sicilian and Tuscan schools, with a more detailed study of Chiaro Davanzati and Rustico di Filippo as related to the "Dolce Stil Nuovo," careful study was made of the work of Guido Guinicelli, Guido Cavalcanti, and Cino da Pistoia. The lesser poets were treated at the end of the course more briefly. It was attempted to illustrate the characteristic ideas of the school, the original characteristics of the poets in question, and the relation of the ideas of the one to those of the others. Some time was devoted to the study of the versification of each poet.

Dr. Brush conducted the following course:

Readings in Old French Literature: Advanced Course. Two hours weekly.

The readings in this course were selected with reference to the annual lectures of Professor F. M. Warren on Old-French literature. During the first half-year the following Romans d'Aventure were read: Ille et Galeron by Gautier d'Arras, Cigés by Chrétien de Troyes, La Châtelaine de Saint-Gille, Le Chevalier du Barisel, and Ispamon. During the second half-year the class read the epic poem, Raoul de Cambrai, and lyric poems from Bartsch's Romanzen und Pastourellen.

II. Undergraduate Courses:

Dr. Brush conducted the following courses:

French: Major Course. Four hours weekly.

In this course two hours weekly were devoted to the translation of French into English, and one hour each to lectures on French literature and to composition. The following texts were read: Balzac: Le Curé de Tours, El Verdugo, La Messe de l'Âthée, Z. Maceus; Hugo: Quatre-vingt-troisième de Musset: Fantasio, On ne badine pas avec l'Amour, Il faut qu'une Porte soit ouverte ou fermée; Corneille: Polyeucte; Racine: Andromaque; Molière: Le Médecin malgré Lui, Tartuffe; Rostand: L'Aiglon; Canfield's Modern French Lyrics. The class also read privately Balzac's les Proscrits, one play of Corneille, of Racine, and of Victor Hugo, and Miss Lynch's French Life in Town and Country. For the work in composition, Storr's Hints on French Syntax and Kron's French Daily Life were used.

French: Minor A. Four hours weekly.

This is a second-year course in French literature and composition designed to enable the student to translate smoothly from French into English, and to write simple French prose. The texts read in class were:
Romance Languages.

Hugo, La Chute; Gautier, Jettatura; Daudet, Contes; Dumas, La Question d'Argent; Molière, Le Bourgeois Gentilhomme, l'Avare, les Précieuses ridicules; Corneille, Le Cid; Racine, Athalie; Hugo, Ruy Blas; France, Le Crime de Sylvestre Bonnard. For the work in the history of literature and in composition the books used were: Duval's Histoire de la Littérature française and Bouvet's French Syntax and Composition.

French: Elementary Course for Graduate Students. Three hours weekly.
This course was offered to those students who, upon entering the graduate school from other institutions, lacked the knowledge of French required of a candidate for the degree of doctor of philosophy. The text-books used were the following: Journes, Minimum French Grammar and Reader; Daudet's L'Enfant Espion and Other Stories; Angier and Sandeau, Le Gendre de M. Poirier; Dumas, Les Trois Mousquetaires; About, Le Roi des Montagnes.

Mr. Critchlow conducted the following courses:
French: Minor B. Four hours weekly.
The object of this course is to make the student familiar with French pronunciation and elementary syntax. In addition to this a study of several specimens of standard French literature was made with a view to an appreciation of the salient differences between French and English idioms. Bi-weekly exercises in French prose composition were given throughout the year.
The works read are here given in the order in which they were taken up; Malot, Sans Famille; Pailleron, Le Voyage de M. Perrichon; Mérimée, Colomba; Dumas, Les Trois Mousquetaires; Daudet, Contes Choisis.

French: Elective Course. Twice weekly.
The work of this course consists in the rapid reading of classic French literature of the first half of the nineteenth century and may be followed by students who have had the equivalent of a minor course in this University. During the year the following texts have been read: Sandeau, Mlle. de la Seigneurie; Angier, Fils de Giboyer; De Banville, Gringoire; Balzac, Eugénie Grandet; Hugo (selections in prose and poetry).

Associate Professor Marden conducted the following courses:
Spanish Minor. Four hours weekly.
After a few lessons in Loiseaux's Spanish Grammar, reading was begun in Matzke's First Spanish Readings. The class then read Alarcon, El Capitán Veneno; Tamayo, Un Drama Nuevo; several short stories by Fardo Bazan; and one hundred pages of Cervantes' Don Quijote. Exercises in grammar and prose composition were continued throughout the first term. During the second term one hour a week was devoted to the history of Spanish literature, with Butler Clarke's Handbook as a basis.

Spanish Elective. Twice weekly.
Edgren's Spanish Grammar was used for the rudiments of grammar and for work in composition. The texts read were Loiseaux's Spanish Reader, and Isla, Gil Blas de Santcllana.
Dr. Shaw conducted the following courses:

**Italian:** Minor Course. *Four hours weekly.*

This work, being adapted to beginners, was begun with the translation of a simple reader. Most of the time was devoted to the translation of texts. The grammar was studied carefully from the beginning and continued with the reading. The students read a primer of Italian literature privately, and brief lectures on the literature were given after the first term. The following text-books were used: Grandgent's *Italian Grammar and Composition*; Snell's *Primer of Italian Literature*; Bowen's *Italian Reader*; De Amicis, *La Vita Militare*; Serao, *All' Eria Sentinella*; Pellico, *Le mie Prigioni*; Goldoni, *La Locandiera*; Boccaccio, *Decameron* (selections); Dante, *Inferno* (selections).

**Italian:** Elective. *Twice weekly.*

This course being intended to give a reading knowledge of Italian, the grammar was studied carefully during the first two terms, together with the reading. During the third term continual reference was had to the grammar. The following text-books were used: Grandgent's *Italian Grammar*; Bowen's *Italian Reader*; Goldoni, *Un Curioso Accidente*; Fogazzaro, *Daniele Cortis*; Dante, *Inferno* (selections).

Mr. Gould conducted the following special course:

**Spanish Conversation.** *Weekly.*

This class was composed of graduate and undergraduate students who had already acquired a reading knowledge of modern Spanish.

Mr. Oussani conducted the following course:

**Italian Conversation.** *Weekly.*

During the first half-year this course was divided into two divisions for elementary and advanced conversation respectively. During the second half-year, the elementary class was dispensed with, the students joining the advanced class. The work consisted in general conversation, the instructor criticizing the language and pronunciation used.

A. M. Elliott,

*Professor of Romance Languages.*

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**History and Political Science.**

The regular publications in these departments have continued as heretofore. The Studies in Historical and Political Science completed the Nineteenth Series. This volume was devoted to diplomatic and constitutional history and included I-III, America in the Pacific and the Far East, by J. M. Callahan; IV-V, State Activities in Relation to Labor in the United States, by W. F. Willoughby; VI-VII, History of Suffrage in Virginia, by J. A. C. Chandler; VIII-IX, The Maryland Constitution of 1864, by W. S. Myers; X, Life of Commissary James Blair, Founder of William
and Mary College, by D. E. Motley; XI-XII, Gov. Hicks of Maryland and the Civil War, by G. L. Radcliffe.

The Twentieth Series is now in progress under the editorship of J. M. Vincent, J. H. Hollander, and W. W. Willoughby. The following numbers have been published: I, Western Maryland in the Revolution, by B. C. Steiner; II-III, State Banks since the passage of the National Bank Act, by G. E. Barnett; IV, Early History of Internal Improvements in Alabama, by W. E. Martin; V, Trust Companies in the United States, by G. Cator VI-VII, The Maryland Constitution of 1851, by J. W. Harry; VIII, Political Activities of Philip Freneau, by S. E. Forman.

Two new Extra Volumes appeared during the year. The first was issued as a memorial to Professor Herbert B. Adams and contains the memorial address given before the university by Professor Richard T. Ely, an address delivered before the American Historical Association by J. M. Vincent, tributes by President D. C. Gilman, Professor B. J. Ramage, and others. A second part of the volume contains a bibliography of the department of History, Politics, and Economics covering the years 1876-1901.

The memory of Professor Adams will be further perpetuated in a bronze tablet containing an inscription and a portrait in relief. A fund for this purpose has been raised by friends and former students of Professor Adams, and the work has been entrusted to Mr. H. A. MacNeil, of New York.

The second Extra Volume appeared in April under the title History of Slavery in Virginia, by Dr. J. C. Ballagh. This forms a complement to his earlier studies of White Servitude in the same State.

The Historical and Political Science Association met regularly on alternate Friday evenings and was attended by twenty students and five instructors. Selections from the original work of the department were here presented and the current literature of history, economics, and political science was subjected to review and criticism. The proceedings from October 11, 1901, to March 21, 1902, are published in the University Circulars for December, January, and April. Among the original papers presented were the following: Trust Companies in the United States, by G. Cator; Economic Aspects of the U. S. Geological Survey, by L. F. Schmeckebier; New England in India, by B. C. Steiner; the Maryland Constitution of 1851, by J. W. Harry; Porto Rico Illustrated, by J. H. Hollander; History of the Wabash Trade Route, by E. J. Benton; Social Progress and the Police Powers of the State, by B. J. Ramage; the Rights of Private Property at Sea, by J. G. Whiteley; Manumission in the Early Middle Ages, by J. J. Crumley; the Rev. Thomas Bray, by B. C. Steiner; Reconstruction in South Carolina, by P. Hollis; Reconstruction in Virginia, by H. J. Eckenrode.

On February 20, a reunion of the Historical and Political Science Association took place in the Historical Library. Sixty-six persons formerly connected with the department were present. Of the 105 surviving Doctors of Philosophy 32 attended the reunion. The exercises included a paper
on the Human Side of the Continental Congress, by Herbert Friedenwald. Short addresses were given by Professor J. F. Jameson, of the University of Chicago; Dr. L. W. Wilhelm, of Baltimore; Professor Davis E. Dewey, of the Massachusetts Institute of Technology; Dr. E. M. Hartwell, of the Department of Municipal Statistics, Boston.

The Albert Shaw Lectures on Diplomatic History were given in January, February, and March by Professor George M. Fisk, of the Tome Institute. His subject was the History of Commercial Relations between Germany and the United States.

Dr. James Schouler gave his regular annual course of lectures on American history. His subject was the life of the people during the Revolution. The special topics considered included The People, Social Conditions, Industries and Home Comfort, Travel and Transportation.

Dr. William H. Tolman, of New York, Secretary of the League for Social Service, gave a public lecture on Social and Industrial Improvement, with illustrations of actual examples of improvement in the condition of working classes. This lecture was provided by the Wontan’s Club of Roland Park.

Historical students were also able to avail themselves of the lectures on Maryland Colonial History provided by the Maryland Society of the Colonial Dames of America. These were given by Clayton C. Hall, Esq., of Baltimore, and the general subject was the Lords Baltimore and the Maryland Palatinate.

Professor George E. Howard gave two lectures on the period of the French Revolution. His special topics were: Turgot and the French Revolution; Mirabeau and the Constituent Assembly.

Associate Professor J. M. Vincent has, in addition to administrative and editorial duties, conducted the following courses for graduate students:

1. *Germanic Civilization*. Two hours weekly, first half-year.

2. *Medieval France*. Two hours weekly, first half-year. These two courses together provided a systematic treatment of the history of Europe during the early Middle Ages. Each student was required to present a syllabus of the whole subject with references to sources and authorities.

3. *The German Reformation*. Two hours weekly, second half-year. Beginning with the causes of the Lutheran movement these lectures extended through the Swiss Reformation until the Protestant churches were firmly established. Emphasis was laid particularly upon the social and political conditions which influenced this revolution.

4. *England in the Sixteenth Century*. Two hours weekly, second half-year. This course covered the period of the Reformation in England and included the significant parts of the reign of Elizabeth.

5. *The Historical Conference*. One hour weekly, through the year. This is a seminar for practical work in historical investigation. Problems in research are assigned to each student and the results are subjected to mutual criticism by the instructor and fellow-students. The topics considered
during the first half-year related to medieval feudal institutions; during the second half-year the students were obliged to present and discuss the important documents of the reign of Henry VIII of England.

Dr. J. C. Ballagh, Associate in History, has conducted the following courses:

A. For Graduates:

*American History,* two hours weekly, through the year. The divisions of the subject presented in the past year were:

1. *Colonial History to 1763,* one hour weekly, throughout the year. The course began with a critical study of American discovery. The lectures then traced the results of private and public initiative in colonization, the formation and character of the colonial policies of Spain, France, England, and Holland, and their administrative methods and institutions in their American colonies. The influences directing colonial extension and the rivalry of England with Holland and France for the possession of the continent were shown in their proper relation to European conditions. Emphasis was laid on points inadequately treated by authorities, thus requiring a more careful study of the sources. Among the required papers embodying the results of independent research on the period by members of the class were: "French Economic Policy in the Central Northwest," by E. J. Benton, and "Representation in Colonial Maryland," by J. W. Harry.

2. *Southern History,* one hour weekly, throughout the year. This was a more specialized course in American history, representing entirely the results of research on the part of the instructor and of the class. The earlier portion of the year was devoted to a description and criticism of the manuscript and published sources for historical investigation. By personal inquiry a more complete bibliography of the important state and private collections of historical material has been prepared than is elsewhere accessible. The lectures continued the course given in 1900–1901, and discussed distinctive features of productive industry in the South. The relation of English commercial policy to colonial production in the formative period was shown. Research work presented by members of the class in carefully-prepared papers was as follows: "The Hemp Product in Virginia," by T. R. Moore; "Political Reconstruction in South Carolina (1865–1883)," by P. Hollis; "The Radical Party in Virginia," by H. J. Eckenrode.

3. *Oral Examinations in General History,* one hour weekly, through the year. This work is particularly designed for candidates for the degree of Doctor of Philosophy, though advanced graduates are sometimes admitted to attendance. Important fields of general history were consecutively and systematically reviewed, but especial emphasis was laid upon those in which greater concentration was needed by the individual members of the class. The special course on the political history of Greece and Rome given last year was replaced by a similar specialized course on the constitutional
Courses of Instruction, 1901-1902.

History of England and the political history of the United States. The sources and best exponents of the history of the periods covered were discussed and used by the class.

B. For Undergraduates:

1. Civilization and Politics in the East, two hours weekly, through the year. The lectures formed a systematic presentation of important social, political, and religious institutions of the East as exemplified in China, Japan, India, Assyria, and Egypt. Emphasis was given to the development and influence of European and American participation in Oriental commerce and politics, and to the facts and results of religious missions in the Far East. A series of reports upon important features of the social and administrative systems or of periods in the history of each country, based upon definitely-assigned reading in sources or authorities, was required at convenient periods. The lectures were supplemented by frequent oral examinations. The valuable Oriental collections of the University and a private collection afforded abundant illustrative material for class use.

2. Classical and European History, four hours weekly, through the year. The history and politics of Greece, Rome, and Europe to 800 A. D. were studied. The work was based upon the text of classical writers, such as Herodotus, Thucydides, Plutarch, Suetonius, Xenophon, Aristotle, and Plato as given in the best English translations, though good modern handbooks and authorities were used as supplementary guides. Comparative biography and institutions were emphasized and reports upon assigned parallel reading were required of each member of the class.

Dr. Bernard C. Steiner has conducted:

1. A class in American Constitutional and Political History, two hours weekly, through the year with undergraduates. The colonial origins of the United States and the development of the constitution were reviewed down to the present time. Reports upon assigned topics were prepared by the students and careful attention was called to the sources of American history. This course is intended to bring to the attention of the student not only the history of the United States, but the principles on which its government is based and those elements of civic knowledge which every good citizen ought to know.

2. Historical Politics, two hours weekly, through the year, with undergraduates who are not members of the historical group, and who take this course as a part of "History-Economics." The history of government and political principles was traced from primitive times to the present day with a view to showing the basis upon which modern governments are established. The second half-year included a course in modern history. Special topics were assigned for the study of the details of modern governments, particularly those of the United States.

Dr. Guy Carleton Lee has conducted:

1. A course in the Political and Constitutional History of England, two hours weekly through the year. Text-books of the narrative and sources
of English history were supplemented by lectures. Frequent written examinations were used to test the private reading of the students.

2. Introduction to the study of Law, particularly designed for undergraduates who intend to pursue the study of law.

Dr. Lee, with the assistance of Mr. J. C. French and Mr. R. Z. Thomas, has continued the instruction in Public Speaking. This consisted of (1) a course in parliamentary practice and debate, one hour bi-weekly, alternating with a conference on the same subjects. This has included the third year undergraduates, who are organized into what is known as the Senate. (2) A course in parliamentary law and debate, alternating with a conference on the same subject, followed by the undergraduates of the second year, who are organized into what is known as the House of Representatives. (3) A course in the elements of public speaking, one hour weekly. This has been attended chiefly by undergraduates of the first year. (4) The elements of parliamentary law divided into three courses of one hour weekly each, followed by undergraduates.

Dr. G. E. Barnett has conducted part of the “History Major” course two hours weekly, through the year. This consists of lectures, text-book work, and reports upon specially assigned topics in medieval and modern history.

**POLITICAL SCIENCE.**

Associate Professor Willoughby has had charge of the graduate work in Political Science, and has conducted the following courses:


2. **History of Political Theories since 1750**, two hours weekly, throughout the year. A descriptive and critical account of political literature of the last hundred and fifty years was given. An especial effort was made to show the extent to which these theories have been an outcome of, and
thus interpret, the political conditions of the times in which they were formulated.

3. The Legal Aspects of Economic and Industrial Problems, two hours weekly, throughout the year. The points of law involved in such matters as the control of interstate commerce, taxation, factory legislation and other exercises of the so-called police power, the fixing of wages and prices, the management of strikes, lockouts, boycotts, the control of industrial combinations, of labor unions, etc., were examined. The development of the present law was traced both in the common law and in statutory enactments, and proposals for its amendment outlined and discussed.

4. The Historical and Political Science Association, fortnightly throughout the year, in cooperation with the departments of History and Economics.

Public Aid, Charities, and Correction.

Dr. Jeffrey R. Brackett, President of the Department of Charities and Correction of Baltimore, gave a course of lectures on the development of the English poor law and on charitable and correctional legislation and custom in England and the United States. The aim was more practical than theoretical. As a matter of practical research one of the students prepared an essay from personal inquiry on the social work of the Salvation Army in Baltimore. Another has taken for the summer months a position as probation officer to assist the recently appointed magistrate for juvenile causes.

J. M. Vincent,
Associate Professor of History.

W. W. Willoughby,
Associate Professor of Political Science.

Political Economy.

The courses in Political Economy were directed during the past year by Associate Professor Hollander. He met advanced students daily, in seminar organization, for formal instruction and for cooperative investigation. The work of the year centered in an analytical study of the economic organization of modern society, with particular reference to conditions in the United States. Contemporary industrial conditions constituted the subject matter, of which a scientific interpretation was attempted. The continuity of economic inquiry was emphasized by critical study of the development of economic thought since Adam Smith.

Associate Professor Hollander conducted the following courses:

1. Economic Seminar, fortnightly, in two-hour sessions, through the year, with membership limited to the most advanced students, and designed to develop the use of sound methods of economic research. The general
Political Economy.


2. Development of Economic Theories since Adam Smith, two hours weekly through the year. A detailed historical survey was made of the development of the fundamental concepts of economic science from Adam Smith to current thought. The body of English thought was followed in the main, but other writers and schools were examined wherever direct influence or analogy was discerned. The method of treatment was topical, resulting in a series of cross-sectional views of the history of economic thought. In connection with the course, members of the class read Adam Smith’s Wealth of Nations, Thomas Robert Malthus’s Essay on Population, and John Stuart Mill’s Principles of Political Economy.

3. Finance, two hours weekly through the year. The past financial experience and the present fiscal practice of the United States—federal, state, and local—were taken as the basis for critical and comparative study. The emergence of contemporary problems in our public economics was traced, and the concrete issues thus presented served to introduce an exposition of the fundamental theories of the science of finance. Emphasis was put upon the place of financial technique in public economics, and
Courses of Instruction, 1901-1902.

attention was directed to the immediate financial problems presented by our new insular possessions. A reasonable amount of collateral reading from selected texts was done in connection with the course.

During the first half-year, Associate Professor Hollander also directed a journal club, in weekly meetings, for the review and discussion of current economic literature, and for exercise in the use of original sources of economic and financial information.

Dr. George E. Barnett, Instructor in Political Economy, gave a course of twenty lectures on the Elements of Statistics during the second half-year. Attention was directed chiefly to the history of statistics and to methods of statistical investigation. As illustrative material, some of the chief problems of vital statistics were discussed.

Dr. Jeffrey R. Brackett gave class instruction during the first term in Public Aid, Charity, and Correction, and also conducted a weekly conference on Charitable Legislation and Custom in England and the United States.

A citizen of Baltimore who desired that his name should not be made public, presented a sum of money to the University to be devoted to a systematic investigation of the history, activity, and influence of labor organizations in the United States. The sum of five hundred dollars was given for the immediate purchase by the University library of additional books, journals, and reports relating to this subject. The further sum of one thousand dollars was made available to meet the expenses incident to carrying on the inquiry for the next academic year. The investigation will be conducted by the Economic Seminary, beginning in October, 1902, and extending over such period of time as may be warranted by the extent of the inquiry and the definiteness of the results attained.

Associate Professor Hollander and Dr. Barnett conducted the following undergraduate courses:

1. Advanced Economics, two hours weekly through the year. The recent developments in economic organization were studied during the first half-year, with Hobson's Evolution of Modern Capitalism as the text-book. During the second half-year, attention was given to recent economic theories, with Marshall's Principles of Economics as the text-book.

2. Elements of Economics, two hours weekly through the year. This course formed a part of "minor economics" and also of "history-economics." Systematic instruction was given in the elementary principles of economic science during the first half-year, and in the principles of money and of taxation during the second half-year.

3. Development of Economic Life and Thought, two hours weekly through the year. This course constituted the second part of "minor economics." Attention was given during the first half-year to the economic history of the United States, and to the growth of economic thought, during the second half-year.

J. H. Hollander,
Associate Professor of Political Economy.
Philosophy.

During the academic year 1901-1902, undergraduate courses in Logic, Psychology, Ethics, and the History of Philosophy have been conducted by me, and courses for graduate students in the History of Philosophy and the History of Modern Ethics.

Each candidate for the degree of Bachelor of Arts is required to attend, during the last year of residence, courses in philosophy occupying five hours a week. The year is divided between the several subjects as follows: Deductive and Inductive Logic, October 1 until the Christmas recess; Psychology, January 1 to April 1; Ethics, April 1 to June 1; Outlines of the History of Philosophy, weekly. The instruction is adapted, as far as possible, to the needs of those to whom these studies are new; attention is, however, called to fundamental problems, and the work is intended to serve as an introduction to general philosophical study. Text-books are used in each subject, as affording definite material of acquisition, but informal lectures, discussions in the class, and passages from various authors assigned for reading, are largely relied upon in the presentation. Each member of the class is required to prepare two essays. Forty-seven students have been in attendance.

Creighton’s Introductory Logic has been the text-book, this year, in Logic, with references to the works of Mill, Jevons, Fowler, and other writers.

In Psychology, Baldwin’s Elements of Psychology and Ladd’s Outlines of Physiological Psychology have been used as text-books, supplemented by many references to the works of other writers. A series of lectures on the anatomy and physiology of the nervous system was given, as a part of the course, by Dr. C. R. Bardeen.

Ethics was treated chiefly with reference to its fundamental problems as a theoretical science. Such topics as the following were discussed:—The psychological basis of ethics in the various forms of feeling native to us, and in the power of rational self-determination; the nature of the sense of obligation; the authority of conscience; the diversities of moral opinion; the historic theories of morals. Questions of applied ethics received, for lack of time, comparatively little attention. Mackenzie’s Manual of Ethics was made the basis of instruction.

One hour each week was used, during the first half-year, for a brief outline of the History of Philosophy, and the survey was brought down, in a summary way, to the modern period. During the latter part of the year, a weekly lecture was given for the benefit of those able to attend it as a voluntary exercise.

For some years past it has been customary to invite, toward the end of the year, several gentlemen to address the class for the purpose of presenting considerations likely to be helpful to them in the choice of a vocation. W. George Weld, Esq., Dr. Henry M. Hurd, and Judge Henry Stockbridge, kindly rendered this service.
A course in the History of Philosophy, for graduate students, was conducted during the year, consisting of the reading and discussion of representative works in modern philosophy, from Descartes to Kant. The lectures presupposed the reading of the following works: Bacon’s *Novum Organum*, book I and a part of book II; Descartes’ *Method, Meditations, and Principles of Philosophy*; Spinoza’s *Ethics*; Leibnitz’s *Monadology*; Locke’s *Essay on Human Understanding*, books I, II, IV; Berkeley’s *Principles of Human Knowledge*; Hume’s *Treatise on Human Nature*, book I; a portion of Kant’s *Critique of Pure Reason*. Ten students attended this course.

The chief ethical writers, from Hobbes to Herbert Spencer, were studied in a series of lectures given fortnightly.

EDWARD II. GRIFFIN,
Professor of the History of Philosophy.

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**Drawing.**

The following report of the work of the undergraduate classes in Drawing, during the year 1901–1902, is respectfully submitted:

The course of instruction was, for the first half-year, drawing from simple geometrical forms, beginning with outline and working up to more complicated groups of figures in light and shade. A knowledge of freehand perspective was also included in this early instruction. Students showing ability were advanced to drawing from the antique.

In the second half-year the classes were divided. Students looking forward to courses in Medicine or Biology continued the work of drawing bones and other natural specimens in order to give them a knowledge of the practical application of drawing in the illustration of lectures in these studies. The practical worth of this work has been commended by several of the instructors in anatomy in the medical department.

A class for special students was held during the entire year for advanced work in mechanical drawing. This course was designed to assist students who later on intend taking up the study of Engineering.

S. EDWIN WHITEMAN,
Instructor in Drawing.
## TABULAR STATEMENT OF COURSES OF INSTRUCTION, 1901-02.

<table>
<thead>
<tr>
<th>INSTRUCTORS</th>
<th>COURSES</th>
<th>No. of hours per week</th>
<th>No. of students 1st half-year</th>
<th>No. of students 2d half-year</th>
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<td>Morley.</td>
<td>Differential Equations of Physics.</td>
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<td>Morley.</td>
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<td>Cohen.</td>
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<td>Hulburt.</td>
<td>Determinants; Calculus; Theory of Equations.</td>
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<td>Solid Geometry and Analytic Geometry: Elem.</td>
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<td><strong>PHYSICS.</strong></td>
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<td>Mechanics.</td>
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<td>Huff.</td>
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<td>Jones, H. C.</td>
<td>Physical Chemistry.</td>
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### Tabular Statement of Courses.

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<tr>
<th>INSTRUCTORS</th>
<th>COURSES</th>
<th>No. of hours per week</th>
<th>No. of students in April</th>
<th>No. of students in May</th>
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<td>Stratigraphic and Structural Geology. (March-May.)</td>
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<td>Zoology and Botany: Major Biology. (Till April 1.)</td>
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<td>Physiology of the Tissues, Digestion, Nutrition, etc.</td>
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### Tabular Statement of Courses.

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| Smith | Latin Seminary: Vergil. | 2 | 15 |
| Smith | Roman Epic. | 1 | 18 |
| Smith | Greek and Latin Journal Club. (Alternate weeks.) | 1 | 18 |
| Smith | Propertius; Ovid; Roman Hexameter. | 1 | 17 |
| Smith | Roman Literature. | 1 | 17 |
| Wilson | Historical Latin Grammar. | 1 | 15 |
| Wilson | Advanced Readings (for graduates). | 1 | 14 |
| Wilson | Latin Epigraphy. | 1 | 17 |
| Wilson | Seneca. | 2 | 2 |
| Wilson | Catullus; Roman Elegy. | 3 | 7 |
| Wilson | Plautus; Terence. | 3 | 7 |
| Wilson | Prose Composition. | 1 | 7 |
| Guernsey | Livy. | 1 | 21 |
| Guernsey | Horace. | 3 | 21 |
| Guernsey | Prose Composition. | 1 | 4 |
| Spieker | Cornelius Nepos; Cicero; Ovid; Prose Composition. | 3 | 19 |

| SANSKRIT, ETC. | | | |
| Bloomfield | Vedic Seminary: The Kashmirian Veda. | 1 | 5 |
| Bloomfield | Pall and Buddhist Religion, etc. | 1 | 5 |
| Smith | Introduction to Vedic Language. | 1 | 4 |
| Bloomfield | Hitopadeva; Manu. | 2 | 4 |
| Bloomfield | Elementary Sanskrit. | 2 | 3 |
| Bloomfield | Comparative Philology. | 1 | 25 |
| Bloomfield | Indo-European Comparative Grammar. | 1 | 22 |
| Bloomfield | Lithuanian. | 1 | 8 |

| SEMITIC LANGUAGES. | | | |
| Haupt | Old Testament Seminary. | 1 | 12 |
| Haupt | Literature of the Old Testament. | 1 | 2 |
| Foote | Hebrew Prose Composition. | 2 | 10 |
| Haupt | Comparative Hebrew Grammar. | 2 | 10 |
| Haupt | Hebrew: Elementary. | 1 | 7 |
| Blake | Hebrew: Second year. | 2 | 7 |
| Rosenau | Hebrew: Sight Reading. | 1 | 3 |
| Rosenau | Post-Biblical Hebrew. | 2 | 4 |
| Rosenau | Hebrew Conversation. | 1 | 4 |
| Haupt | Assyrian Prose Composition. | 1 | 3 |
| Johnston | Assyrian Historical Texts. | 1 | 3 |
| Foote | Assyrian: Elementary. | 2 | 4 |
## Tabular Statement of Courses.

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## GERMAN.

### Advanced Work.

- **Wood.** German Seminary: Goethe's Lyrical Poems; Niobe-lungenlied.
  - Verlag.
- **Wood.** Germanic Society. (Alternate weeks.)
- **Wood.** German Literature.
- **Wood.** Old Saxons.
- **Wood.** Gothic.
- **Vos.** Old High German.
- **Vos.** Middle High German.
- **Baker.** England and Germany in XVIII Century: Lectures.

### Major Course.

- **Wood.** Goethe; Schiller.
- **Wood.** Prose Composition.
- **Vos.** History of German Literature.

### Minor Course: Class A.

- **Wood.** Prose Composition.
- **Vos.** Selected Prose Readings.
- **Vos.** Classics.

### Minor Course: Class B.

- **Kurrelmeyer.** Otto; Brandt; Whitney; Keller; Goethe.
- **Kurrelmeyer.** Prose Composition.

### Supplementary Courses.

- **Vos.** Elementary German.
- **Kurrelmeyer.** Scientific Readings.
- **Kurrelmeyer.** Contemporary Literature: Readings.
- **Kurrelmeyer.** Historical Readings.
- **Hofmann.** Oral Exercises.
- **Hofmann.** German Conversation.
# Tabular Statement of Courses.

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<td>Hollander.</td>
<td>Elements of Economics.</td>
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<td>48</td>
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<td>Barnett.</td>
<td>Statistics.</td>
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<td>Barnett.</td>
<td>Economic History of the U. S.</td>
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<td>Brackett, J. R.</td>
<td>Charitable Legislation and Custom.</td>
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<td><strong>PHILOSOPHY.</strong></td>
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<td>Griffin.</td>
<td>Modern Ethical Theories. (Alternate weeks.)</td>
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<td>Griffin.</td>
<td>History of Philosophy.</td>
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<td>Griffin.</td>
<td>Logic. (Until December 20.)</td>
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<td>Griffin.</td>
<td>Psychology. (January 6 to March 26.)</td>
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<td>Griffin.</td>
<td>Ethics. (After April 2.)</td>
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<td><strong>DRAWING.</strong></td>
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<td>Whitman.</td>
<td>Freehand, Constructive, and Perspective Drawing.</td>
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<td>Special Work.</td>
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<td><strong>FORENSICS AND ELOCUTION.</strong></td>
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<td>Lee.</td>
<td>Parliamentary Practice. (Alternate weeks.)</td>
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<td>Lee.</td>
<td>Parliamentary Law.</td>
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<td>Lee.</td>
<td>Public Speaking: Advanced.</td>
<td>1</td>
<td>26</td>
<td>24</td>
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<td>Thomas.</td>
<td>Elements of Public Speaking.</td>
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<td>48</td>
<td>46</td>
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<td>French.</td>
<td>Elements of Parliamentary Law.</td>
<td>2</td>
<td>42</td>
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DEGREES CONFERRED, 1901-02.

Doctors of Philosophy.


Louis Wardlaw Miles, of Baltimore, A. B., Johns Hopkins University, 1894. **Subjects**: English, German, and French. **Dissertation**: King Alfred in Literature. **Referees on dissertation**: Professors Bright and Browne.


(17)

**Doctors of Medicine.**

John Auer, of Chicago, Ill., S. B., University of Michigan, 1898.


Bennet Bernard Browne, Jr., of Baltimore, A. B., Johns Hopkins University, 1898.

Robert Martin Bruns, of New Orleans, La., A. B., Univ. of Virginia, 1898.

William Morgan Case Bryan, of St. Louis, Mo., A. B., Washington University, 1897.

Camillus Bush, of Woodland, Cal., S. B., University of California, 1898.
Degrees Conferred.

John Woolman Churchman, of Burlington, N. J., A. B., Princeton University, 1898.
Thomas Wood Clarke, of Utica, N. Y., A. B., Harvard University, 1899.
Henry Wireman Cook, of Baltimore, A. B., Johns Hopkins University, 1898.
John Jacob Jones Coons, of Milledgeville, O., S. B., Ohio Wesleyan University, 1898.
Gustavus Charles Doyme, of Baltimore, A. B., Johns Hopkins University, 1898.
David Hough Dolley, of Hillsboro, Va., A. B., Randolph-Macon College, 1897.
Ralph Duffy, of Baltimore, A. B., Johns Hopkins University, 1898.
John Dunlop, of Washington, D. C., S. B., Princeton University, 1898.
William Gage Erving, of Hartford, Conn., A. B., Yale University, 1898.
Newell Simmons Ferry, of New Haven, Conn., Ph. B., Yale University, 1898.
Nellis Barnes Foster, of Utica, N. Y., S. B., Amherst College, 1898.
William Willoughby Francis, of Toronto, Ont., A. B., Johns Hopkins University, 1898.
Maurice Albert Frankenthal, of St. Louis, Mo., A. B., Washington University, 1898.
W. Harry Glenn, of Buffalo, N. Y., Ph. B., Yale University, 1894.
Clarence Foster Hardy, of Waukesha, Wis., B. L., University of Wisconsin, 1891.
Morrison Le Roy Haviland, of Glens Falls, N. Y., Ph. B., Union College, 1898.
Mabel Stevens Haynes, of Boston, Mass., A. B., Bryn Mawr College, 1898.
Leonard Keene Hirschberg, of Baltimore, A. B., Johns Hopkins University, 1898.
Carl Herman Horst, of Butte, Mont., A. B., Leland Stanford Junior University, 1898.
Solomon Hyman, of San Francisco, Cal., S. B., Univ. of California, 1898.
William Frederick Jelke, of Cincinnati, O., Ph. B., Yale University, 1898.
Thomas Monroe Jones, of Anderson, Ind., A. B., Indiana University, 1898.
Alfred Karsted, of Butte, Mont., A. B., Leland Stanford Junior University, 1898.
Arthur Herbert Kimball, of Washington, D. C., S. B., Amherst College, 1897.
Louis Charles Lehr, of Baltimore, A. B., Johns Hopkins University, 1898.
Edward McCrady L'Engle, of Baltimore, A. B., St. John's College, 1897.
George Victor Litchfield, Jr., of Abingdon, Va., A. M., Randolph-Macon College, 1897.
Emma Lootz, of Boston, Mass., A. B., Smith College, 1897.
Seymour DeWitt Ludlum, of Paterson, N. J., S. B., Rutgers College, 1897.
Annie Galloway Lyle, of San Francisco, Cal., A. B., Leland Stanford Junior University, 1895.
George Malcolm MacGregor, of Mondovi, Wis., S. B., University of Wisconsin, 1894.
Samuel Andrew Marshall, of Cromwell, Conn., A. B., Yale University, 1898.
John Scott McFarland, of Buffalo, N. Y., Ph. B., Yale University, 1898.
Edmund Webster Meisenheimer, of York, Pa., A. B., Pennsylvania College, 1898.
Degrees Conferred.

John Elmer Meisenhelder, of Hanover, Pa., S. B., Pennsylvania College, 1897.

Henry William Ochsner, of Waumandee, Wis., S. B., University of Wisconsin, 1898.

Edward Hiram Reede, of Baltimore, A. B., Cornell University, 1898.


Carey Pegram Rogers, of Raleigh, N. C., A. B., Wake Forest Coll., 1897.

Stephen Rushmore, of Plainfield, N. J., A. B., Amherst College, 1897.

George Barr Scholl, of Baltimore, A. B., Johns Hopkins University, 1898.

Melville Silverberg, of San Francisco, Cal., A. B., University of California, 1897.

John Nathan Simpson, of Point Pleasant, W. Va., A. B., University of Nashville, 1893.

Harry Merriman Steele, of Waterbury, Conn., Ph. B., Yale Univ., 1894.

Alice Weld Tallant, of Boston, Mass., A. B., Smith College, 1897.

Condit Brewer Van Arsdall, of Harrodsburg, Ky., A. B., Kentucky Wesleyan College, 1894.

John Van Denburgh, of San Francisco, Cal., A. B., Leland Stanford Jr. University, 1898.

Otis Buckminster Wight, of Stanford University, Cal., A. B., Leland Stanford Jr. University, 1898.

Clara Louise Williams, of San Francisco, Cal., S. B., University of California, 1897.

Dudley Williams, of Baltimore, A. B., Johns Hopkins University, 1897.

Charles Benjamin Wright, of Grand Forks, N. Dak., A. B., University of North Dakota, 1898.

Bachelors of Arts.

Edward Bailey Beasley, of Baltimore.

Henry Beeuwkes, of Baltimore.

Elbridge Palmer Bernheim, of Louisville, Ky.

William Jackins Buttner, of Baltimore County, Md.

John Gorsuch Campbell, of Baltimore County, Md.

Robert Treat Crane, of Baltimore County, Md.

Albert Goucher Dew, of Baltimore.

Ross Miles Diggs, of Baltimore.

Robert Sergeant Duck, of Baltimore.

Joseph Townsend England, of Baltimore.

Horace Clendenin Gillespie, of Cecil County, Md.

John Sharrall Grasty, of Staunton, Va.

Frederick Lee Guggenheimer, of Baltimore.

John Phelps Hand, of Baltimore.

William Hall Harris, Jr., of Baltimore.

Henry Honeyman Hazen, of Washington, D. C.

Louis Foltat Hildebrandt, of Baltimore.
Degrees Conferred.

William Bryant Hill, of Harford County, Md.
William Edwin Hoffman, Jr., of Baltimore.
William Kirk, of Baltimore.
William Howard Koppelman, of Baltimore.
David Israel Macht, of Baltimore.
Ogle Marbury, of Laurel, Md.
Charles Markell, Jr., of Hagerstown, Md.
Bartgis McGlone, of Baltimore.
Robert Emory Moore, of Baltimore.
Lyman Clements Murphy, of North Carolina.
Charles Augustus Myers, of Baltimore.
John Norris Myers, Jr., of Baltimore.
Marbury Bladen Ogle, of Baltimore.
Aubrey Pearre, Jr., of Baltimore.
Isaac Rosenbaum Pels, of Baltimore.
Thomas Coulson Pinkerton, of Baltimore.
Milton Williams Powell, of Baltimore County, Md.

Benjamin Swayne Putts, of Baltimore.
Charles Frederick Ranft, of Baltimore.
Walter Ford Reynolds, of Baltimore.
Jacob Abner Sayler, Jr., of Baltimore.
William Christian Schmeisser, of Baltimore.
Ralph Carlton Sharretts, of Baltimore.
Lloyd Parker Shippen, of Baltimore.
Gibson Emerson Sisco, of Baltimore.
John Aydelotte Slemons, of Salisbury, Md.
Sidney Smith, of Louisville, Ky.
Harvey Brinton Stone, of Baltimore County, Md.
Henry Philip Straus, of Baltimore.
Solomon Strouse, of Baltimore.
Samuel Wolman, of Baltimore.
Peregrine Wroth, Jr., of Baltimore.

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REPORT ON THE OFFICIAL STATE BUREAUS CONNECTED WITH THE JOHNS HOPKINS UNIVERSITY.

TO THE PRESIDENT OF THE JOHNS HOPKINS UNIVERSITY:

I present herewith a report for the past year of the work of the State bureaus connected with the Johns Hopkins University. The investigations of these organizations are so closely identified with the work of the geological department that the results attained properly constitute a part of the investigations of the University.

THE MARYLAND GEOLOGICAL SURVEY.

The Maryland Geological Survey has now been in existence more than six years, having been established by an act of the General Assembly in March, 1896. The organization has been in charge of Professor Clark as State Geologist since its establishment. For the first two years of its existence the appropriation was $10,000 annually, but this was increased in 1898 by the passage of two additional acts establishing the Division of Topography, with an appropriation of $5,000 annually, and the Highway Division, with an appropriation of $10,000 annually, making the combined resources of the Survey at the present time $25,000 a year.

The work of the Survey covers a wide field, including investigations in geology, topography, physiography, terrestrial magnetism, forestry, agriculture, and highway engineering.

The geological work, which is directly under the charge of the State Geologist, is divided into three divisions, covering the areas of the Piedmont Plateau, the Appalachian Region, and the Coastal Plain. Dr. E. B. Mathews, who is also the Assistant State Geologist, has had particular charge of the work in the Piedmont Plateau, and Dr. G. B. Shattuck of the work in the Coastal Plain; both of them with the aid of assistants have devoted much attention during the past years to the work of those two districts. The division of the Appalachian Region was for several years under the supervision of Professor Charles S. Prosser, whose duties at the present time are such that the work in this area has devolved on younger men under the direct charge of the State Geologist. During the past year the investigations in this district have been mainly carried on by Dr. G. C.
Martin, who has been assisted from time to time by other members of the Survey.

The results of the past year under Dr. Mathews in the Piedmont Plateau comprise an extension of the areal mapping of the crystalline rocks through Harford County into Baltimore County. Dr. Mathews has been assisted the past season by Mr. A. Johanssen and Mr. W. T. Lee in this work.

Dr. Shattuck, with the assistance of Mr. B. L. Miller and Mr. M. W. Twitchell, has been engaged in the study of the special problems connected with the Miocene and Pleistocene deposits of Southern Maryland and the Eastern Shore. In cooperation with the U. S. Geological Survey, the St. Mary's and Patuxent folios have been prepared for publication. Much progress has also been made on the Calvert, Prince George's, and St. Mary's reports, which will be ready for publication another year. The Cecil County report is now in press and will shortly be ready for distribution. In conjunction with the State Geologist, Mr. Bibbins has continued his study of the Potomac Group, and a joint article was recently published in the Bulletin of the Geological Society of America.

The investigations in Western Maryland, under Dr. Martin, comprise the areal mapping of the western portion of Washington County and the final preparation of the maps and report on Garrett County, which are now in press. Much additional work has been done on the Carboniferous and Coal reports, which are being prepared jointly by the State Geologist and Dr. Martin, an article on the Correlation of the Coal Measures having recently been published in the Bulletin of the Geological Society of America by the State Geologist and Dr. Martin.

Investigations have also been in progress by a number of distinguished American experts on the faunas and floras of the Devonian, the Lower Carboniferous, and the Pleistocene, a monograph on the Miocene having already been prepared. It is now in press and will be issued during the present year.

The topographical work has been extended to Baltimore, Wicomico, and Talbot Counties, and the results of this survey will be shortly incorporated in county maps, which will show the character of the topography, as well as the various cultural features. This work is being carried on in cooperation with the U. S. Geological Survey, and affords the foundation for the geological and agricultural mapping. Somewhat over two-thirds of the State has now been surveyed on the scale of one mile to the inch.

The study of the terrestrial magnetism has been since 1896 in charge of Dr. L. A. Bauer, who is now chief of the Division of Terrestrial Magnetism of the U. S. Coast and Geodetic Survey. Through cooperation with Dr. Bauer in his present position the further extension of the study of the terrestrial magnetism of the State has been made, and a very important report, under the authorship of Dr. Bauer, will be shortly issued as a part of Volume V of the Geological Survey reports.

The study of the agricultural soils of the State has been carried on during the past year in cooperation with Professor Milton Whitney, Chief of
the Bureau of Soils of the U. S. Department of Agriculture. Soil maps are being prepared in the various counties and already the areal work has been completed in Allegany, Garrett, Cecil, Harford, Kent, Calvert, St. Mary's, and Prince George's. It is the plan to have the soil work carried on contemporaneously with the mapping of the geological formations.

The hydrographic work of the State is carried on jointly by the Maryland Geological Survey and the Division of Hydrography of the U. S. Geological Survey through Mr. F. H. Newell, the chief of the Division. Gauges have been placed upon a number of streams and records are regularly secured. As the county reports are made ready for publication a chapter is prepared on each by one of the hydrographers of the National Survey. Already such reports have been prepared for Allegany, Garrett, and Cecil Counties.

Cooperative forestry work has been in progress for several years with the Bureau of Forestry of the U. S. Department of Agriculture through its chief, Mr. Gifford Pinchot. As in the case of the soil work, it is planned to have the forestry investigation conducted contemporaneously with the geological mapping, and already forestry surveys are completed for Allegany, Garrett, Cecil, Calvert, and St. Mary's Counties.

The Highway Division is under the direction of Dr. H. F. Reid, who has had associated with him in this work Messrs A. N. Johnson and J. Morrison Harris as highway engineers. A second report has been issued by the Survey showing the progress of the investigations of the Highway Division during the past two years. Numerous specifications have been prepared for county and city roads, and streets and tests have been made of road materials for both public and private interests. The City of Baltimore at the present time submits all its samples of vitrified brick and crushed stone to the laboratory of the Highway Division before contracts are let. Much has been done to aid the county authorities, and the value of the Highway Division is being yearly more appreciated.

The Maryland Geological Survey was requested by the Maryland Commissioners to the South Carolina Interstate and West Indian Exposition to install an exhibit of the mineral resources of the State at Charleston, and the State Geologist, with the aid of Mr. H. H. Hindshaw, placed in the Exposition a very elaborate collection of materials which well represented the resources of the State. Out of forty-nine gold medals awarded in the department of Mines and Mining, eleven were awarded to exhibits of the Maryland Geological Survey—more than twice the number received by any other State. A number of silver and bronze medals were also received, so that the recognition accorded the Maryland exhibit was most marked.

Numerous demands reach the Survey office for its publications both from this country and abroad, and numerous reviews have been accorded the reports of the Survey in scientific journals. Four volumes in the numbered series of reports have already been issued as well as reports on Allegany and Cecil Counties and on the Eocene, in addition to a number of maps.
Maryland Weather Service.

The Maryland Weather Service.

The Maryland Weather Service was organized in May, 1891, under the joint auspices of the Johns Hopkins University, the Maryland Agricultural College, and the U. S. Weather Bureau, and was recognized as an official organization by an act of the General Assembly, which was approved by the Governor on April 6, 1892. The State Service under this act is permanently established at the Johns Hopkins University, under the direction of the Board of Control designated by the heads of the three institutions above mentioned and commissioned by the Governor. The appropriation for the maintenance of the bureau is $2,000 annually, the fund being employed mainly for investigations relating directly to the climatology of the State. Under this head the co-operative topographic work is included, the Maryland Weather Service and the Maryland Geological Survey having united in aiding the preparation of the county maps, which are the basis for a knowledge of the physiographic characteristics of the State.

The investigations of the Maryland Weather Service during the past year have embraced a critical study of the climate of Baltimore, which has been carried on by Dr. O. L. Fassig and several assistants, under the joint auspices of the U. S. Weather Bureau through its chief, Professor Willis L. Moore, and the Maryland Weather Service. Further study has also been given to many of the general problems affecting Maryland climate, and it is contemplated another year to issue a second volume of the large octavo series which was established in 1899.

The State bureaus have been materially aided in their work by the cordial cooperation granted to the State Geologist by the heads of the various national scientific organizations. Particular reference should be made to the cooperation of the U. S. Geological Survey through its director, Hon. Charles D. Walcott, and the aid given by the U. S. Weather Bureau through its chief, Professor Willis L. Moore. The U. S. Coast and Geodetic Survey through its chief, Professor O. H. Tittmann, has been most helpful, particularly in the resurvey of the Mason and Dixon Line, in detailing Captain W. C. Hodgkins as chief of the engineering staff. This work will also be of benefit to the State organizations, although it is carried on under a separate act. Professor Clark is Commissioner on behalf of the State of Maryland.

The work of the State bureaus is progressing along many lines, and is affording admirable opportunities for the advanced students in the geological department of the university to obtain practical experience in the field, the State at the same time receiving a large return at little cost from this source.

WM. BULLOCK CLARK,
State Geologist and Director.
REPORT OF THE DEAN OF THE MEDICAL FACULTY.

TO THE PRESIDENT:

I beg leave to submit the following report of the medical department for the session of 1901-1902. The total number of students enrolled as candidates for the degree of Doctor of Medicine was 229 (25 women and 204 men), giving an increase of 20 over the registration of last year. The entering class for the session was unusually large: 80 were accepted at the opening of the year, but, of this number, 5 withdrew during the term and 2 were admitted to the second year. The colleges from which these students graduated and the States represented are given in tabular form in the tenth annual catalogue and announcement of the medical department; seventy-nine colleges in this country and Canada are found in this list.

The instruction during the year calls for no especial comment. It was carried on according to the published schedules, and I am glad to report that there has been no serious illness among the students or the members of the staff to interfere with the successful completion of the courses announced. Dr. H. T. Marshall, of the pathological staff, was absent on leave during the year following special courses in the laboratory of Professor Ehrlich at Frankfort, and Dr. W. H. Lewis was granted leave of absence from March 1st, to pursue his studies in Europe. The large number of students in the first-year class increased greatly the work of the teaching-staff in that year, and, if the numbers continue to grow, a considerable enlargement of the staff will be required to preserve the efficiency of the practical courses. The activity of the members of the staff and of our graduates on the side of investigation and publication is shown in a gratifying way by the bibliography published in our annual catalogue.

At the Commencement exercises in June, fifty-seven students were awarded the degree of Doctor of Medicine. Of this number, the twelve whose records were the highest for the entire four years, were nominated to the Trustees of the Johns Hopkins Hospital for appointment as House-Officers for the ensuing year. The twelve students who won this honor, are in order of merit as follows: H. W. Ochsner, T. W. Clarke, J. Auer, J. B. Briggs, Jr., C. H. Horst, A. W. Tallant, J. W. Churchman, N. B. Foster, C. Bush, C. P. Rogers, O. B. Wight, and E. W. Meisenhelder. Drs. A. W. Tallant and N. B. Foster declined appointment, as they had accepted positions elsewhere, and Drs. C. B. Wright and H. W. Cook were nominated to fill the vacancies. In addition
to the twelve graduates who received these appointments in the Johns Hopkins Hospital, the following members of this class have obtained positions in other hospitals or medical schools:

B. B. Browne, Jr., Assistant Ophthalmologist to the Baltimore Eye, Ear and Throat Hospital.

R. M. Bruns, Assistant Resident Physician, Springfield State Hospital for the Insane, Sykesville, Md.

H. W. Cook, Resident Physician, Mount Wilson Sanitarium, during the summer.

J. J. Coons, Interne, Atlantic City Hospital, Atlantic City, N. J.

D. H. Dolley, Resident Pathologist, St. Vincent's Charity Hospital, Cleveland, O.

J. Dunlop, Assistant Resident Surgeon, Union Protestant Infirmary, Baltimore.

W. G. Erving, Assistant Resident Physician, City Hospital, Boston.

N. B. Foster, First Resident Physician, New York Hospital.

W. H. Glenny, Assistant Resident Physician, Union Protestant Infirmary, Baltimore.

C. F. Hardy, Resident Physician, Mercy Hospital, Pittsburgh, Pa.

L. K. Hirshberg, Associate in Nervous Diseases and Instructor in Bacteriology, College of Physicians and Surgeons, Baltimore.

S. Hyman, Assistant Resident Physician, Mt. Sinai Hospital, New York.

W. F. Jelke, Assistant Resident Surgeon, Lakeside Hospital, Cleveland, Ohio.

T. M. Jones, Interne, King's County Hospital, Brooklyn, N. Y.

A. Karsted, Resident Surgeon, German Hospital, New York.

A. H. Kimball, Resident Physician, Baltimore Eye, Ear and Throat Charity Hospital, Baltimore.

S. D. Ludlum, Assistant Resident Physician, Sheppard and Enoch Pratt Hospital, Towson, Md.

S. A. Marshall, Resident Physician, Hudson Street Hospital, New York.

J. E. Meisenhelder, Resident Surgeon, Moses Taylor Hospital, Scranton, Pa.

E. H. Reede, First Resident Physician, St. Luke's Hospital, New York.

E. N. Riggins, Assistant Resident Surgeon, Hudson Street Hospital, New York.

J. N. Simpson, Instructor in Anatomy and Physiology, West Virginia University, Morgantown, W. Va.

H. M. Steele, Assistant in Pediatrics, Bellevue and Foundling Hospitals, New York.

A. W. Tallant, Interne, New England Hospital, Roxbury, Mass.

C. L. Williams, Interne, St. Luke's Hospital, San Francisco, Cal.
I regret very much to state that two of our alumni have died during the year. Dr. Edward S. Oliver, of the Class of 1900, died at Saranac Lake, N. Y., on March 18, 1902, of consumption, and Dr. Milton Bettmann, of the Class of 1900, died in Paris, France, in May, 1902, of appendicitis.

The special courses offered to graduates in medicine during April, May, and June, were attended by sixty-six physicians. In addition, fifty-three physicians were in attendance for varying periods upon the regular courses given during the year. The enrollment of graduates for the entire year was, therefore, one hundred and nineteen, and the total number of students, graduate and undergraduate, amounted to three hundred and forty-eight. We are under much obligation to a number of the instructors in the department, who were kind enough to give special evening lectures or demonstrations in the Spring course for graduates, and also to Dr. D. E. Salmon, Chief of the Bureau of Animal Industry, Department of Agriculture, for a lecture on "Bovine Tuberculosis and the Public Health," given in the same course. The number of physicians who apply for permission to take the courses in the clinical subjects, has increased so much in recent years that it has become a matter requiring some special attention; it would seem to be desirable in the future to establish some regulations by which the number of graduates in attendance at any one time shall be kept within limits, that will not interfere with the regular instruction to undergraduates.

The library of the medical department has received gifts of books from several of the members of the staff. I desire to thank especially Drs. Oster, Randolph, and Mall for presents of this kind. I take the opportunity of again calling attention to the desirability of increasing the effectiveness of this library. The appropriation allotted to it is insufficient; a fund is much needed for its special support, both to purchase books and periodicals and to make the rooms more attractive and comfortable for the teachers and students.

During the past year a new Board, composed of the Professors, the Associate Professors, the Clinical Professors, and the Associates, and designated as the Board of Medical Studies, was created by the Trustees for the purpose of considering and discussing matters pertaining to the curriculum. The grounds surrounding the medical buildings have been improved considerably during the year, but still require much attention to bring them into a creditable and attractive condition.

W. H. Howell,
Dean.
The several serials have been continued through the year, as follows:

The nineteenth series of the Studies in Historical and Political Science was, after the death of Professor Adams, completed under the editorial direction of Dr. J. M. Vincent. The series contains 645 pages, octavo. The twentieth series is now in progress with J. M. Vincent, J. H. Hollander, and W. W. Willoughby as editors. The issues have included papers on the History of Suffrage in Virginia, the Maryland Constitution of 1864, Commissary James Blair and William and Mary College, Governor Hicks of Maryland and the Civil War, Western Maryland in the Revolution, State Banks since the National Bank Act, Internal Improvements in Alabama, Trust Companies in the United States, the Maryland Constitution of 1851, and the Political Activities of Philip Freneau.

Two extra volumes of these Studies have also been issued, as follows:

Extra Volume Twenty-three, containing tributes to Professor Herbert B. Adams and a Bibliography of the Department of History and Politics from its foundation. The bibliography was edited by Professor Adams in the last months of his life. This volume contains 160 pages, octavo. It has been sent without charge to the regular subscribers to the Studies and to a large number of the friends and colleagues of Professor Adams. Extra Volume Twenty-four is a History of Slavery in Virginia, by J. C. Ballagh. It contains 160 pages, octavo.

Of the American Journal of Mathematics, edited by Professor Morley, the twenty-third volume has been completed and the twenty-fourth is now in progress. A portrait of Professor Benjamin Peirce was issued with the current volume. This journal appears quarterly and contains about 400 pages in each annual volume.

Of the American Chemical Journal, edited by President Remsen, volumes twenty-six and twenty-seven have been completed, and volume twenty-eight is now in progress. This journal appears monthly, and is issued in two volumes of six numbers and of about 500 pages each annually.

Of the American Journal of Philology, edited by Professor Gildersleeve, volume twenty-two has been completed and volume twenty-three is in progress. This journal appears quarterly and contains about 500 pages in each annual volume.

Of the Journal of Experimental Medicine, edited by Professor Welch, three numbers of volume six have been issued.
None of the Memoirs from the Biological Laboratory, edited by Professor Brooks, have appeared during the year.

Of the Modern Language Notes, edited by Professor Elliott, volume sixteen has been completed and seventeen is in progress.

Of the Contributions to Assyriology, edited by Professor Haupt, part four, completing volume four, has appeared.

Numbers 154 to 159 of the University Circulars have been issued since the last report.

The Twenty-sixth Annual Report of the President was issued in January, and the Annual Register of the University and the Announcement of the Medical Department in the Spring.

Of the Hebrew text of the Polychrome Bible, edited by Professor Haupt, one part (Proverbs) has appeared during the year.

The work upon the reproduction of an unique manuscript of the Kashmirian Atharva-Veda, edited by Professor Bloomfield, was completed at Stuttgart in the Autumn of 1901, and copies have since been sent to the subscribers. The manuscript appears in three large folio volumes and the beauty and accuracy of the reproduction have met with general approbation.

A volume of Studies in Honor of Professor Gildersleeve, prepared by a special committee of publication, was issued in February. The volume contains 557 pages, with a photo-gravure of Professor Gildersleeve and forty-four separate papers.

The publication of the Collected Physical Papers of Henry A. Rowland has been undertaken under the direction of a committee, consisting of President Remsen, Professor Welch, Professor Ames and Professor R. W. Wood. The printing of the volume is now in progress.

Of the Journal of Terrestrial Magnetism and Atmospheric Electricity, edited by Dr. L. A. Bauer, volume six has been completed and volume seven is now in progress.

Of the Johns Hopkins Hospital Reports, appearing irregularly, volume ten is in progress. Of the Bulletin of the Johns Hopkins Hospital, appearing monthly, volume thirteen is in course of issue.

A gold medal and a bronze medal were awarded to our exhibit at the Pan-American Exposition at Buffalo. The exhibit as a whole was removed from Buffalo to Charleston; there also noteworthy awards were made. It has now been returned to Baltimore. Since it was brought together two years ago, it has been exhibited at Albany, Paris, Manchester (England), Buffalo, and Charleston.

The system of exchanges has been conducted as in previous years. There have been received, in accordance with the regulations, 150 copies of the dissertations accepted for the degree of Doctor of Philosophy, from the graduates named below:

Adams, T. S.—Index Numbers and the Standard of Value.

Brown, G. D.—Syllabification and Accent in the Paradise Lost.
Cator, G.—Trust Companies in the United States.
Chambers, V. J.—A Further Investigation of the Action of Phenols and Alcohols on the Chlorides of Paranitroorthosulphobenzoic Acid.
Douglas, J. M.—The Dissociation of Certain Acids, Bases and Salts at Different Temperatures.
Eckels, W. A.—ΔΥΣΗΣ as an Index of Style in the Orators.
Eisenhart, L. P.—Infinitesimal Deformation of Surfaces.
Ewing, A. H.—The Hindu Conception of the Functions of Breath.
Ewing, J. R.—Public Services of Jacob Dolson Cox.
Foote, T. C.—The Ephod: Its Form and Use.
Forman, S. E.—The Political Activities of Philip Freneau.
Frazer, J. C. W.—I. On relations between the Color and the Composition and Constitution of the Alkali Salts of Nitrophenols: II. Comparison of the Metasulphanine-benzoic Acids made by Different Methods.
Gilbert, N. E.—Some Experiments upon the relations between Ether, Matter and Electricity.
Grimm, K. J.—Euphemistic Liturgical Appendices in the Old Testament.
Haggett, A. S.—A Comparison of Apollonius Rhodius with Homer in Prepositional Usage.
Hamilton, H. A.—The Negative Compounds in Greek.
Houser, G. L.—The Neurons and Supporting Elements of the Brain of a Selachian.
Johnston, G. W.—The Querolus: A Syntactical and Stylistic Study.
Kennedy, E. W.—Quit-rents and Currency in North Carolina, 1683-1776.
Martin, W. E.—Internal Improvements in Alabama.
Mather, W. T.—Ionic Velocities in Silver Salts, with Notes on the Volhard Method for the Analysis of Silver.
Montgomery, W. A.—Dio Chrysostom as a Homeric Critic.
Motley, D. E.—Life of Commissary James Blair, Founder of William and Mary College.
Nitze, W. A.—The Old French Grail Romance Perlesvaux: A Study of its Principal Sources.
Parker, F. L.—A Study of the Preparation of Permanganic Acid by Electrolysis.
Pender, H.—On the Magnetic Effect of Electrical Convection.
Penick, D. A.—Herodotos in the Greek Renascence.
Peppler, C. W.—Comic Terminations in Aristophanes and the Comic Fragments.
Radcliffe, G. L. P.—Governor Thomas H. Hicks of Maryland and the Civil War.
Radford, R. S.—Personification and the Use of Abstract Subjects in the Attic Orators and Thukydides, Part I.
Reese, A. M.—Structure and Development of the Thyroid Gland in Petromyzon.
Simmons, W. W.—A Further Study of the So-called Infusible Diamide of Parasulphobenzoic Acid.
Stiles, P. G.—On the Rhythmic Activity of the Oesophagus and the Influence upon it of various Media.
Taliaferro, T. H.—The Focal Surfaces of the Congruence formed by the Tangents to the lines of Curvature of a given Surface.
Weedon, W. S.—An Investigation of the Oxidation Products of Phenyl-thiosalicylic Acid.

1902, September 1.

N. MURRAY.
ABSTRACT OF THE REPORT OF THE LIBRARIAN.

The number of bound volumes in the Library is 105,216; the accessions during the year have amounted to 4,468.

The number of pamphlets and unbound volumes received during the year exceeded 5000. The total number of pamphlets in the Library is estimated at 100,000. Over 1500 serials are regularly received.

The principal gifts of the year have been as follows:—

Mr. Leopold Strouse has added to the Strouse collection a large number of new volumes in continuation of his annual gifts. He also authorized the purchase of a list of important books at an aggregate cost of $500—to be regarded as a special gift in commemoration of the twenty-fifth anniversary of the University. The collection founded by him is to be known henceforth as the Leopold Strouse Semitic Library.

A citizen of Baltimore, who does not wish his name known, has given $500 for the purchase of books on the relations of capital and labor.

Dr. F. J. Mather, Jr., of New York, has established a fund in memory of the late Dr. M. C. Sutphen; from this an annual income of $80 will be available for the purchase of books for the classical library.

Mr. Edgar G. Miller, of Baltimore, gave a copy of the finely illustrated work describing the ceramic collection of W. T. Walters, in ten folio volumes and a smaller volume of explanatory text.

Mr. George A. von Lingen presented a complete set of the Atlases and Monographs of the Prussian Geological Survey as far as issued. The amount expended exceeded $400. Mr. von Lingen has since given $175 more, to be expended in the purchase of the publications of the Baden, Alsace, and Bavarian Geological Surveys.

Mr. Theodore Marburg has supplemented his gift of $200 of last year by an additional $200. As before, this has been expended in the acquisition of much-needed volumes in physics.

Mr. Jesse Tyson several years ago gave a large number of the volumes of the Annales des Mines; he has this year completed the gift by presenting the Annales des Mines from 1869 to date, as well as the 38 volumes of its forerunner, the Journal des Mines. The addition comprises in all 133 well-bound volumes, purchased at a cost of $225.

Professor Cleveland Abbe, of Washington, has largely added to the collections of the Abbe Meteorological Library.
Other gifts worthy of note have been:

From Yale University, a set of the publications issued in honor of its Bicentennial Celebration; also the Literary Diary of Ezra Stiles, in three volumes.

From the Peabody Museum of American Ethnology at Harvard, a copy of the facsimile in colors of the ancient Mexican manuscript known as the Codex Nuttall.


From the London Clinical Society, eighteen early volumes of its Transactions.

From the Duc de Loubat, of Paris, Seler's Tonalamatl of the Aubin Collection; a reproduction in colors of the ancient Mexican Codex, Fejérvary-Mayer; and an edition of the same codex with explanatory text, by E. Seler.

From the Republic of Uruguay, through Mr. de Murguiondo, the Consul in Baltimore, over 200 of its official publications.

From the Hon. Charles R. Schirm, the reports of the Industrial Commission.

From Henry Holt & Co., their publications for the year.

From Mrs. Sutphen, of Morristown, New Jersey, 34 volumes from the library of her son, the late Dr. Morris C. Sutphen.

From an anonymous lady of Baltimore, several volumes in Italian literature.

From Mr. William N. Numsen, of Baltimore, a copy of the Berlenburg Bible in four volumes, and Lundius, Jüdische Heilighümer.

From Mr. L. K. Sparrow, of Baltimore, the first 23 volumes of the Contemporary Review.

From Hon. Edwin Warfield, the National Register of the Sons of the American Revolution.

From President Renssen, a large number of works in chemistry.

From President Gilman, a large number of miscellaneous volumes.

From Professor Gildersleeve, several volumes in classical philology.

From Professor Oder, Buck's Handbook to the Medical Sciences.

From Professor Howell, several volumes in physiological subjects.

From Professor Bright, 69 titles in the philology of the modern languages.

From Professor Ames, 21 volumes in the field of physics.

From Professor Smith, 25 miscellaneous volumes.

A full list of donations for the year is appended.

The usual installments of academic exchanges have been received.

The general library has been in charge of Mr. Brandow, with two assistants.

The classical library has been in charge of Dr. C. W. E. Miller, under the supervision of Professor Gildersleeve.

The modern language library has been in charge of Dr. Keidel, under the supervision of Professors Wood and Elliott; the English library was
removed during the year to the fourth floor and placed in relation to the
general library, under the direction of Professor Bright.

The historical collection has been in charge of Miss Daran, under the
direction of Dr. Vincent.

The chemical library has been in charge of Dr. H. C. Jones, under the
direction of President Remsen.

The biological library has been under the direction of Professor Brooks
and Dr. Andrews, with a library attendant.

The geological library has been in charge of Dr. Mathews, under the
supervision of Professor Clark.

The astronomical library has been in charge of Dr. Hulburt.

The physical and mathematical seminary collection has been under the
supervision of Professor Ames.

The library of the medical department has been under the supervision of
Professor Howell, with an attendant in charge, and with the cooperation
of Miss Blogg, who is in charge of the Hospital collection and of the
university books there deposited.

During the year, the New Book Department has purchased 2,450 volumes
of the estimated value of $5,000. Since the opening of the department,
over 105,000 volumes of the estimated value of $166,000 have been
received for inspection.

N. Murray,
Librarian.

1902, September 1.
GIFTS TO THE LIBRARY.

ABBE, CLEVELAND. A large number of volumes for the Abbe Meteorological Library.

ADAMS, C. F. (Author.) Shall Cromwell have a Statue? Boston, 1902. O.


AIX, UNIVERSITY OF. Eighteen academic publications.

ALGIER, UNIVERSITY OF. Two academic publications.

ALLEHENY OBSERVATORY. Miscellaneous Scientific Papers, Nos. 1-3. 1901.

ANES, J. S. A number of volumes in Physics.

APÉRY, P. (Author.) Les doctrines chimiques dans l'Étologie des maladies. 1902. D.

ARGENTINE REPUBLIC. Tratados de la República Argentina. Buenos Aires, 1901. Q.


ARMOUR INSTITUTE OF TECHNOLOGY. Alderson, V. C. German Technical Schools, Australia, Government Geologist. Seven reports. 1901-02. O.

BALCH, E. S. (Author.) Antarctica. Philadelphia, 1902. Q.


Baltimore, a Citizen of. Five hundred dollars for the purchase of books on the Relations of Capital and Labor.


CHIAPPETTI, L. Vita e opere giuridiche di Cino da Pistoia. Pistoia, 1881. D.

NOTTO, U. Una canzone inedita di Cino da Pistoia. Milano, 1903. O.

BATAVIA, ROYAL MAGNETICAL AND METEOROLOGICAL OBSERVATORY. Registerwennungen in Nederlandsch-India, xxvit. 1900. Batavia, 1901. Q.


BERLIN, UNIVERSITY OF. One hundred and eighty-six academic publications.


FAUNA HAWAIENSIIS. Vol. 1, part 3; vol. 2, part 3; and vol. 3, part 1. 1900-01. F.

BESANCON, UNIVERSITY OF. Two academic publications.


BOMBAY, PLAGUE RESEARCH LABORATORY. Seventeen of its publications.

BONN, UNIVERSITY OF. Academic publications for the year.

Bordeaux, University Of. One hundred and twenty-eight academic publications.

BRIGHT, J. W. Fifty-one dissertations and monographs relating to Romance, Teutonic and Scandinavian philology.

Seventeen miscellaneous publications.

BROOKS, W. K. Three publications relating to Zoology.

BROWNE, W. H. Mereness, N. D. Maryland as a Proprietary Province. 1901. D.

EUSEBIUS PAEMPHTUS. Historia Ecclesiastice, ex recentiori E. Burton. 1845. O.


BROUGHAM, A. H. (Author.) A Manual of Toxicology. Brooklyn, 1901. S.

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Gifts to the Library. 93


CALABRO, G. (Author.) Il sentimento della natura in Virgilio. Messina, 1901. O.


CAMBRIDGE (Mass.) CITY CLERK. Annual Documents. Boston, 1902. O.

CANADA, DEPARTMENT OF AGRICULTURE. Byrner, D. Reports on Canadian Archives.

CANADA, GEOLOGICAL SURVEY. Publications for the year.

CANADA, ROYAL SOCIETY. Proceedings and Transactions.

CASTOR, G. Six reports on banking, 1898-1902. O.


CHARLESTON (S. C.), MAYOR OF (Hon. J. Adder Smyth). Year Book for 1901. O.


CHICAGO MUNICIPAL LIBRARY. Statistics of City of Chicago. Chicago, 1901. Q.

CHICAGO, UNIVERSITY OF. Twenty-seven academic publications.

CLERMONT-FERRAND, UNIVERSITY OF. Academic publications for the year.

CLYDE, J. H. (Author.) Laboratory Course of Experiments in Physics. 1901. D.

COLES, G. W. (Author.) Rotary Transformers. Philadelphia, 1901. O.

COLUMBIA UNIVERSITY. Twenty-three academic publications, 1900-01. Q and F.

Minutes adopted on the Resignation of President LOW. O.

COMMISSION DE LA BELGIQUE. Eleven official publications.

COPEE, L. (Author.) The Prose Poetry of Thomas De Quincey. Leipzig, 1902. O.

COREY, D. P. (Author.) The History of Malden (Mass.), 1635-1885. Malden, 1899. O.

CORNELL UNIVERSITY. Twenty-one academic publications.


CRUICKSHANK, E. Nine miscellaneous publications.

DASSIN, C. C. (Author.) Metafisica de los concejos matemáticos fundamentales, etc.

DRINSTEIN, PROF. M. (Author.) Die Entwicklung der organischen Elementaranalyse.

DROY, W. (Author.) 'Prosperous' British India. London, 1901. O.

DIZJON, UNIVERSITY OF. Twenty-five academic publications.

ERLANGEN, UNIVERSITY OF. One hundred and ninety-three academic publications.


FIELD COLUMBIA MUSEUM. Publications for the year.


FRIIBURG, UNIVERSITY OF. One hundred and twenty-four academic publications.

FRIDDENWALD, H. (Author.) The Declaration of Independence. 1901. O.

LaFitte du Courteil, A. L. R. Proposals to demonstrate the necessity of a National Institution in the United States for the Education of Children of Both Sexes.

Philadelphia, 1877. O.

GAJJAR, T. K. Eight publications of the Techno-Chemical Laboratory, Bombay.

GAY, G. W. Two of his publications. Boston, 1895-7. S.

GENEVA (BIBLIOTHEQUE FEDERALE CENTRALE). Budge, N. C. Esquisses de littérature politico-economique. Genève, 1900. O.

GIESSEN, UNIVERSITY OF. Ninety-three academic publications.

GILDEMSHEVE, B. L. A large number of philological and miscellaneous works.

GILMAN, D. C. One hundred and forty-five miscellaneous volumes.


Record of the Ninth Jubilee of the University of Glasgow, 1451-1901. 1901. O.

GLEED, J. W. (Author.) Abraham Lincoln. 1902. O.

GÖTTINGEN, UNIVERSITY OF. One hundred and six academic publications.

GOFFELSBOEDER, K. (Author.) Capillaranalyse. Basel, 1901. O.

GRATZ, UNIVERSITY OF. Two academic publications.

GREEN, S. A. Suffolk Deeds, Liber XII. Boston, 1902. O.

Nine miscellaneous publications.
Gifts to the Library.

GREGORY, M. BUTLER, J. E. Personal Reminiscences of a Great Crusade. 1896. D.
GREIFSWALD, UNIVERSITY OF. One hundred and thirty-six academic publications.
GRENoble, UNIVERSITY OF. Nineteen academic publications.
GROSVENOR LIBRARY. Catalogue of Poetry in the English Language in the Library.
HALLE, UNIVERSITY OF. Academic publications for the year.
HANCOCK, J. L. (Author.) The Tettigids of North America. Chicago, 1902. Q.
HARRISON, E. N. (Author.) A Mechanical Universe. Spokane, 1902. D.
HARLEM, SOCIETE HOLLANDAISE DES SCIENCES. Oeuvres completes de Christiana Huygens. Vol. 9. La Haye, 1901. Q.
HARTWELL, E. M. Monthly Bulletin of the Statistical Department of Boston, 1901. Q.
HARVARD COLLEGE, ASTRONOMICAL OBSERVATORY. Publications for the year.
HARVARD UNIVERSITY. Reports of President and of Librarian, 1900-01. O.
WICK, S. B. A Bibliography of the Historical Literature of North Carolina.
HAYANA, UNIVERSITY OF. Memoria Anuario, 1900-01. Habana, 1902. O.
HEIDELBERG, UNIVERSITY OF. Academic publications for the year.
HILLER, H. M. AND FURNESS, W. H., 3RD. Notes of a Trip to the Veddas of Ceylon. O.
HODGKINSON, A. (Author.) Structure of the Left Auriculo-Ventricular Valve in Birds.
HOLLS, F. W. Barnard, H. George Charles Holls. 1901. O.
HOLT, HENRY & Co. Their publications for the year.
HODSON, A. (Author.) Hymn by Lord Macaulay. Cambridge, 1902. O.
HOW, P. JR. (Author.) A Case of Abnormality in Cate's Paws. 1902. O.
HOWELL, W. H. Seven volumes in physiology.
ICHTHYOL-GESELLSCHAFT. Seven recent publications, O.
INDIA GEOLOGICAL SURVEY. Memoirs. Eight parts. Calcutta, 1900-01. Q.
ITALY, MINISTER OF PUBLIC INSTRUCTION. Le Opere di Galileo Galilei. Vol. 11.
JAPAN, DEPARTMENT OF FINANCE. Financial Annual of Japan. Tokyo, 1901. Q.
JENNINGS, J. G. (Author.) Masque of the Three Loves. Allahabad, 1902. D.
JOHNSTON, C. Fac-simile du Testament de Louis XVI. Paris. O.
JONES, H. C. (Author.) Outlines of Electrochemistry. New York, 1901. O.
JONQUIERE, J. L. AND M. AND O. Jonquiere, A. Grundriis der musikalischen Akustik.
JUDSON, A. B. (Author.) The Question of Spinal Braces in Lateral Curvature. 1901. O.
KANSAS, ACADEMY OF SCIENCES. Transactions of annual meetings. 1899-1900. Topeka.
KANSAS, STATE HISTORICAL SOCIETY. Transactions. Vols. 6-7. Topeka, 1900-02. O.
KARLSRUHE TECHNICAL HIGH SCHOOL. Academic publications for 1900-01.
KEYES, W. Additional volumes in Economic Geology (See last report of Librarian).
LAMPING, L. V. Four philological works.
LAWAL UNIVERSITY. Conférences publiques, 1900-01. Quebec, 1901. O.
LEIPZIG, UNIVERSITY OF. Three hundred and two academic publications.
LELAND STANFORD JUNIOR UNIVERSITY. Three academic publications.
JORDAN, D. S. The Building of a University. 1902. O.
LEMKE, E. E. (Author.) Creation, Re-Creation. Orange, 1901. D.
LEYDEN, UNIVERSITY OF. Thirty-two publications.
Recueil de Travaux du Laboratoire Boehrava. 2 vols. Leide, 1899.
LICK OBSERVATORY. Two official publications.
LIEBERHAL, DAVID. Six of his publications. O and D.
Gifts to the Library.

LILLE, UNIVERSITY OF. Fifty-three academic publications.
LIVERPOOL BIOLOGICAL SOCIETY. Proceedings and Transactions. Liverpool, 1901. O.
LOUBAT, DUC DE. Seler, E. The Tomahmall of the Aubin Collection (English translation). Berlin and London. 1900-01. Q.
Codex Fehervary-Mayer, erlautert von E. Seler. Berlin, 1901. F.
Codex Fehervary-Mayer; elucidated by E. Seler. Berlin, 1901-02. F.
LOUISIANA HISTORICAL SOCIETY. Publications. Two parts. New Orleans, 1902. O.
LUND, UNIVERSITY OF. Eleven academic publications.
Acta Universitatis Lundensis. For the year.
LYONS, UNIVERSITY OF. Two hundred and twenty-two academic publications.
MADRID ASTRONOMICAL OBSERVATORY. Observaciones Meteorologicas, 1898 y 1899.
MADRID, BIBLIOTECA NACIONAL. Montessori, J. S. de. Inventario de un Jovellanos.
MAIL, F. F. Papers from the Anatomical Laboratory of the Johns Hopkins University.
Vol. 6. Baltimore, 1901. O.
MARBURG, THEODORE. One hundred and fourteen volumes in Physics.
MARDEN, JESSE. Scapula, J. Lexicon Graeco-Latinum. London, 1852. F.
Four other classical volumes.
MARYLAND HISTORICAL SOCIETY. Archives of Maryland. Journal and Correspondence of the Council, 1787-93. Baltimore, 1901. Q.
Steiner, B. C. (Ed.) Rev. Thomas Bray; his life and selected works relating to Maryland. Baltimore, 1901. O.
Annual Report for 1901. Baltimore, 1902. O.
MARYLAND STATE LIBRARY. Laws of the State of Maryland made and passed 1881-62.
MATHER, F. J. An endowment of eighty dollars yearly for the purchase of classical books as a memorial of Dr. M. C. Stephen.
MATSUMATA MASAYOSHI, COUNT. (Author.) Report on the Adoption of the Gold Standard in Japan. Tokio, 1899. Q.
MICHIGAN STATE LIBRARY. Collections and Researches made by the Michigan Pioneer and Historical Society. 8 vols. Lansing, 1900-02. O.
MICHIGAN, UNIVERSITY OF. General Catalogue, 1837-1901. Ann Arbor, 1902. O.
Laying of the Corner-Stone of the new Medical Building, October 15, 1901. Q.
MILWAUKEE PUBLIC MUSEUM. Sixteen official publications.
MINNESOTA GEOLOGICAL AND NATURAL HISTORY SURVEY. Minnesota Botanical Studies. 2nd Series, Parts 1-5. Minneapolis, 1889-1901. O.
MINNESOTA VALLEY HISTORICAL SOCIETY. Sketches of the Monuments and Tablets erected by the Society. Morton, 1902. O.
MONACO, PRINCE ALBERT 1er DE. Résultats des campagnes scientifiques, fascicules 17-20. Cartes 8, 9 and 8. Monaco, 1900-01. F.
Notes de géographie biologique marina. Berlin, 1900. O.
MONTANA HISTORICAL SOCIETY. Montana's Capital. Great Falls, 1902. D.
MONTPELIER, UNIVERSITY OF. One hundred and twenty academic publications.
MOSHER, R. B. Executive Officers of the United States, 1789-1901. Washington, 1901. O.
MURRAY, T. H. (Author.) Charles MacCarthy, a Rhode Island Pioneer, 1877.
NANCY, UNIVERSITY OF. Thirty-five academic publications.
Gifts to the Library.

Nansen, F. Schetelig, J. On the use of the Hydrometer of Total Immersion. 1901. O.
Ekman, Y. W. On a new Current-Meter invented by F. Nansen. Krania, 1901. O.
(Author.) Oceanographical Results. Krania, 1901. O.
Nebraska, University of. Academic publications.
Newell, L. C. (Author.) The Teacher's Problem. Boston, O.
Newkirk, B. L. (Author.) Eine Untersuchung der Parallaxe des Zentralternes des Ringnebel in der Leda. Munchen, 1902. O.
New Mexico, Department of the Interior. Acts of the Legislative Assembly, 1901.
New South Wales, Department of Mines and Agriculture. Mineral Resources. No. 10. Sydney, 1901. O.
New York State, Department of Labor. Four official reports. Albany, 1901. O.
New York State Historical Association. Proceedings—third annual meeting.
New York State Library. University Reports and Bulletins, and State Legislative Publications for the Year.
Noble, C. P. Six of his recent publications.
North Carolina, University of. Two official publications.
Johannes Lundius, Die alten jiidischen Heilighthmer. Hamburg, 1701. F.
Two academic publications.
Opler, W. The American Illustrated Medical Dictionary. By W. A. N. Dorland. 1901. O.
Owens College. Hickson, S. J. Dendrocometes paradoxus. O.
Paris, University of. (Faculty of Law.) Two hundred and eighty-three academic publications.
Paris, University of. (Faculty of Medicine.) Six hundred and eighty-seven academic publications.
Pennsylvania, University of. Ten academic publications.
Pepper, G. (Author.) The Ancient Basket Makers of Southeastern Utah. 1902. O.
The Making of a Navajo Blanket. New York, 1902. O.
Philadelphia Board of Public Education. Bibliography of Child Study. O.
Pippin, H. (Author.) Gotlandska Studier. Uppsala, 1901. O.
Potteken, University of. Twenty-seven academic publications.
Portugual, Ministerio da Marinha e Ultramar. O Aquario Vasco da Gama por Amando da Silva. Lisbon, 1901. O.
Gifts to the Library.

POWERS, FREDERICK B. Eight publications in Chemistry.  
PRAUN, J. (Author.) Die Kaisergräber im Dome zu Speyer. München, 1903. O.  
PROVIDENCE, RECORD COMMISSIONERS. Early Records of the Town of Providence. Vol. 15. Providence, 1901. O.  
PUTNAM, H. (Librarian of Congress.) Report as Librarian for 1901. A Union List of Periodicals, Transactions, etc., currently received in the principal libraries of the District of Columbia. Washington, 1901. Q.  
GRiffin, A. P. C. List of Books on Samoa and Guam. Washington, 1901. Q.  
Friedewald, H. A Calendar of Washington Manuscripts. Washington, 1901. O.  
RAMAGE, B. J. (Author.) Hugh Swinton Legarde. O.  
RANDOLPH, C. F. (Author.) The Insular Cases. New York, 1901. O.  
RATTERMAN, H. A. (Author.) Johann Bernhard Stallo. Cincinnati, 1902. O.  
RATNER, A. W. Argument of the Hon. Isidor Rayner before the Court of Inquiry on behalf of Admiral W. S. Schley. Baltimore, 1902. O.  
REFORMED CHURCH IN AMERICA, THEOLOGICAL SEMINARY. Notes Descriptive of the Gardner A. Sage Library. 1902. D.  
RESEN, ISA. Fourteen volumes of chemical publications.  
RENNE, UNIVERSITY OF. Sixteen academic publications.  
RICHTER, DR. INTERNATIONAL EXPOSITION, Paris, 1900. Exhibition of the German Empire. Berlin. O.  
RIEY, W. T. Record of the Organizations in the Campaign of Vicksburg. Washington, 1901. O.  
ST. JOHN'S COLLEGE (NEW YORK CITY.) WYNDE, J. J. Poisoning the Wells.  
SANES, BARON YASUZUMI. The Surgical and Medical History of the Medical War between Japan and China during 1894-95. Tokio, 1901. Q.  
SAN FERNANDO OBSERVATORY. Eclipse Total de Sol del 28 de Mayo de 1900. F.  
SAWYER, SIR JAMES. (Author.) Contributions to Practical Medicine. 1902. D.  
SCHIRM, HON. C. R. Industrial Commission Reports. Washington, 1900-01. 13 vols. O.  
SCHULER, J. (Author.) Alexander Hamilton. Boston, 1901. T.  
SARGENT, J. A. Searight, T. B. The Old Pike. Uniontown, 1894. O.  
SMITH, W. M., MUSEPRATT, J. S. Chemistry, Theoretical, Practical and Analytical. London. 2 vols. O.  
SMITH, G. HUTCHINSON. (Author.) The Life of Henry Bradley Plant. 1898. O.  
SOUTH AUSTRALIA, DEPARTMENT OF MINES. Handbook of Mining. Adelaide, 1901. O.
SOUTHERN EDUCATIONAL ASSOCIATION. Proceedings of the Columbia Meeting. KNOXVILLE, 1902. O.

SOUTHERN EDUCATION BOARD. Circulars for the year. Southern Education Notes. Series I. 3 numbers. KNOXVILLE, 1902. O.


SPENCE, W. W. Five additional volumes of the Universal Anthology, completing the set. London. O.

STEINER, B. C. Three classical texts.

STORCK, C. Correspondence of John Sedgwick, Major-General. Vol. 1. 1902. O.

STOKVIS, B. J. Three of his publications.

STROHMEYER, LEOPOLD. Two hundred and seventy-four additional bound volumes and forty-five pamphlets for the Strouse Semitic Library.

SUTPHEN, MRS. MORRIS. Thirty-five volumes from the library of her son, the late Dr. Morris C. Sutphen.

TAKAMIRA, KOKO. Massayoshi, Count M. Report on the Adoption of the Gold Standard in Japan. TOKIO, 1899. Q.


TALBOT, T. H. (Author.) The Winning Argument in the Legal Tender Case of 1884. What shall we do with our Silver? Boston, 1886. O.

TALLACK, W. (Author.) Two of his recent publications.


THOMAS, C. (Author.) Provisional List of Linguistic Families, Languages, and Dialects of Mexico and Central America. 1902. O.

TIETSCHER, K. (Author.) Four of his recent publications.

TOKYO, IMPERIAL EARTHQUAKE INVESTIGATION COMMITTEE. Publications in Foreign Languages. Vol. 3. TOKIO, 1902. Q.

TOKYO, IMPERIAL UNIVERSITY OF. Botanical Institute. Yendo, K. Coralline verna Japonicae. 1902. Q.

MATSUMARA, J. Revisio alni specierum Japonicarum. 1902. Q.

YABE, Y. Revisio umbelliferae Japonicarum. 1902. Q.

TOLMAN, H. C. Stevenson, J. H. Assyrian and Babylonian Contracts with Aramaic Reference Notes. NEW YORK, 1902. D.

TOULOUSE, UNIVERSITY OF. One hundred and three academic publications.

TUBINGEN, UNIVERSITY OF. Sixty-eight academic publications.


Ukow, N. (Author.) Ein versuch der magnetischen Typen des Erdmagnetismus zu ermitteln. MOSCOW, 1901. O.

UNION LEAGUE CLUB (CHICAGO). Exercises on the Birthday of Washington, 1902.


URUGUAY, UNIVERSITY OF. Symbolae Antillarum seu Fundamenta Form India Occidentalis. Vol. 2. BEROLIN, 1901. Q.

URUGUAY, REPUBLIC OF (THROUGH PRUDENCIO DE MURGUIANO, ESQ., CONSUL GENERAL FOR URUGUAY, BALTIMORE). Two hundred and four official and other publications relating to Uruguay.

UTRECHT, UNIVERSITY OF. Twenty-seven academic publications. Acte du Congres de La Haye. 4 pts.

VELMS, A. VOX, (Author.) Uber die Einheit der Sprachen. Budapest, 1902. O.

VERMONT STATE LIBRARY. Official State publications for the year.

VICTORIA, MINISTER OF MINES. Bradford, W. The Creswick Field and its Mining.

VIGNAUD, H. (Author.) La Lettre et la Carte de Toscannil, Paris, 1901. Q.

VIRGINIA, UNIVERSITY OF. Ten academic publications.

VON LINDEN, G. A. Monographs and other publications of the Prussian Geological Survey, comprising 89 volumes and many portfolios of maps.

Also the complete publications of the Baden, Alsace-Lorraine and Bavarian Geological Surveys.
Gifts to the Library.

VOY, R. J. (Author.) Rhyme-parallelism in Old High German Verse. Baltimore, 1902. O.

WALKER, J. H. The Banking and Treasury System of the United States. 1892. O.

WARFIELD, E. A National Register of the Society of the Sons of the American Revolution. New York, 1902. Q.

WASHINGTON OBSERVATORY. Publications for the year.

WATSON, B. F. (Author.) Addresses, Reviews and Episodes, chiefly concerning the "Old Sixth" Massachusetts Regiment. New York, 1901. O.

WEBER, B. Passalsky, F. Anomalies magnétiques dans la région des mines de Kri-voi-Rog. Odessa, 1901. F.

WELCH, W. H. (Author.) The Relation of Yale to Medicine. 1901. O.

WHITE, MILLS, JR. (Author.) Henry Baker and some of his Descendants. 1901. O.

WILCOX, W. F. (Author.) Essays and Statistics. O.

WILLOUGHBY, W. W. Commercial Relations of the United States, 1899. 2 vols. O.


WISCONSIN STATE HISTORICAL SOCIETY. Dedication Ceremonies of its New Library Building. Madison, 1901. O.

WISCONSIN, UNIVERSITY OF. Three academic publications.


WURZBURG, UNIVERSITY OF. Academic publications for the year. 1900-01.

YALE UNIVERSITY. The series of publications issued in connection with the Bicentennial Anniversary of the University, 24 vols.

Literary Diary of Ezra Stiles. New York, 1901. 3 vols. O.

Five other academic publications.


YOUNG MEN'S CHRISTIAN ASSOCIATIONS (HISTORICAL LIBRARY). Year-Book of the Young Men's Christian Associations of North America, 1902. New York, 1902. O.

ZISS, C. Microscopes and Microscopic Accessories. 32nd edition. Jena, 1902. Q.

Reports and other current publications have been received from the societies and institutions named below. This does not include catalogues, etc., received in regular exchange.

Aberdeen, University of; American Bar Association; American Board of Commissioners of Foreign Missions; American Bible Society; American Museum of Natural History; American Numismatic and Archeological Society of New York City; American Orthopaedic Association; Australian Association for the Advancement of Science; Baltimore Chamber of Commerce; Baltimore Department of Public Safety; Baltimore Presbytery; Eye, Ear and Throat Charity Hospital; Boston City Auditor; Boston Department of Municipal Statistics; Boston Museum of Fine Arts; Boston School Committee; Bowdoin College; British Association for the Advancement of Science; Brown University; Buffalo Public Library; Cambridge (Eng.) University Library; Cambridge (Mass.) Public Library; Carnegie Free Library of Allegheny, Pa.; Carnegie Library of Atlanta; Central Indiana Hospital for Insane; Chicago Civil Service Commission; Chicago Pathological Society; Chicago Public Library; Cincinnati Museum Association; Cincinnati Public Library; Cincinnati, University of; Cleveland Public Library; Colby College; Colorado, University of; Columbus Public School Library; Connecticut Bureau of Labor Statistics; Cooper Union; Craig Colony for Epileptics; Davenport Academy of Sciences; Dayton Public Library; Denver, North Side Schools; Enoch Pratt Free Library; Essex County Hospitals for the Insane; Essex Institute; Forbes Library; Franklin and Marshall College; General Theological Seminary (New York); Guy's Hospital; Haverford College; Haverhill Public Library; Hawaiian Board of Missions; Illinois Bureau of Labor Statistics; Illinois Live Stock Commissioners; Illinois State Board of Health; Indian Industrial School; Indian Rights Association;
Gifts to the Library.

Indians, Department of Geology and Natural Resources; Iowa State Normal School; Japan, Imperial Library of; Jewish Hospital Association of Philadelphia; John Crerar Library; Los Angeles Public Library; McGill University; Maimonides Free Library; Marburg, University of; Maryland Bureau of Industrial Statistics; Maryland School for the Deaf and Dumb; Massachusetts Agricultural College; Massachusetts Board of Education; Massachusetts Board of Gas and Electric Light Commissioners; Massachusetts Board of Railroad Commissioners; Massachusetts Bureau of Statistics of Labor; Massachusetts Commissioner of Public Records; Massachusetts State Board of Charity; Massachusetts State Board of Health; Massachusetts State Board of Insanity; Metropolitan Museum of Art (New York); Metropolitan Water Board (Boston); Michigan Bureau of Labor Statistics; Michigan Department of Public Instruction; Minneapolis Board of Park Commissioners; Missouri Botanical Garden; Missouri Valley College; National Civil-Service Reform League; Newark Free Public Library; Newberry Library; New Bedford Free Public Library; New England Society in New York; New Hampshire State Library; New Haven Colony Historical Society; New Jersey Bureau of Statistics of Labor; New Jersey Geological Survey; New South Wales Linnean Society; New South Wales Public Library; New York Botanical Garden; New York City Board of Education; New York City General Society of Mechanics and Tradesmen; New York Infirmary for Women and Children; New York Juvenile Asylum; New York Mercantile Library; New York Meteorological Observatory; New York Society for the Relief of the Ruptured and Crippled; New York State Charities Aid Association; New York State Commission in Lunacy; New York University; North Carolina Bureau of Labor and Printing; Nova Scotian Institute of Science; Ohio Chief Inspector of Mines; Ohio State University; Ontario Department of Agriculture; Owens College; Peabody Institute; Perkins Institution; Philadelphia Free Library; Philadelphia Library Company; Princeton Theological Seminary; Providence Athenaeum; Rhode Island Commissioner of Public Schools; Robert College; Rochester State Hospital; Rochester Theological Seminary; Rochester, University of; Royal College of Physicians of London; St. Louis Mercantile Library Association; St. Louis Merchants' Exchange; St. Mary's Industrial School; Salem Public Library; Society for the History of the Germans in Maryland; Society for the Study of Disease in Children; Storer Agricultural Experiment Station; Syracuse Public Library; Texas, University of; Tufts College; Union of American Hebrew Congregations; Union Club; University Club (N. Y.); University Extension, Brussels; Utica State Hospital; Victoria Public Library; Western Reserve University; Williams College Library; Wilmington Institute; Wyoming, University of.

The University is indebted, as in previous years, for many and valuable gifts from the several departments at Washington.
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THE

TWENTY-EIGHTH ANNUAL REPORT

OF

THE PRESIDENT

WITH ACCOMPANYING REPORTS

1903

Baltimore, Maryland
Published by the University
TRUSTEES
1903-1904

President
R. BRENT KEYSER

Secretary
LEWIS N. HOPKINS

Members of the Board
LEWIS N. HOPKINS
Francis White
William T. Dixon
Eugene Levering
Richard M. Venable
John Gill of R.

THE PRESIDENT OF THE UNIVERSITY, ex officio

COMMITTEES

Executive Committee
Blanchard Randall
Francis White

THE PRESIDENT OF THE BOARD, ex officio
THE PRESIDENT OF THE UNIVERSITY, ex officio

Finance Committee
Francis White
John Gill of R.

THE PRESIDENT OF THE BOARD, ex officio

Building Committee
Richard M. Venable
Eugene Levering

THE PRESIDENT OF THE BOARD, ex officio
REPORT

TO THE TRUSTEES OF
THE JOHNS HOPKINS UNIVERSITY:

Gentlemen:

I have the honor to submit to you my report for the last academic year, extending from September 1, 1902 to August 31, 1903.

PERSONAL CHANGES

At a meeting of the Board of Trustees held January 5, 1903, Mr. Francis White, who had for a year been acting as President of the Board, was unanimously elected President, but he declined the position to the regret of the Trustees, as expressed in the following minute:

"In accepting, with great reluctance, the resignation of Mr. Francis White as President of the Board of Trustees of the Johns Hopkins University, the Board desire to place on record their appreciation of the services rendered by Mr. White, of the great interest he has always manifested in the welfare of the university, and particularly their high estimate of his sound judgment and valued counsel in guiding the finances of the institution.

"The Board express to Mr. White their appreciation of his services, and wish that he may long continue his relations with the university."

The Board then unanimously elected Mr. R. Brent Keyser President.

Mr. Lewis N. Hopkins was re-elected Secretary of the Board, and Mr. Charles J. Meyer was re-elected Treasurer of the University.

Mr. W. G. Bowdoin, an honored member of the Board of Trustees, resigned April 6, 1903, after a service of eleven years. The resignation was accepted with much regret.
Personal Changes

On May 4, 1903, Mr. Henry J. Bowdoin was elected to fill the vacancy caused by the resignation of his brother, Mr. W. G. Bowdoin. Mr. Henry J. Bowdoin received the degree of Bachelor of Arts from this university in 1881, and has since taken a leading position in legal and financial matters in Baltimore. He is the first alumnus of the university to be honored by election to the Board of Trustees.

The following new appointments and promotions in the faculty have been made for the coming year:

In the Philosophical Department:

To be Associates:
- Murray P. Brush, Ph. D., Romance Languages.
- William Rosenau, Ph. D., Post-Biblical Hebrew.
- J. Eustace Shaw, Ph. D., Italian.

To be Instructors and Assistants:
- LeRoy C. Barret, Ph. D., Latin.
- Henry A. Converse, Ph. D., Mathematics.
- Theodore C. Foote, Ph. D., Biblical Literature.
- Lee Raney, A. B., Assistant Librarian.
- John D. Rodeffer, Ph. D., English.

To be Director of the Gymnasium:
- Charles R. MacInnes, Ph. D.

In the Medical Department:

To be Associate Professors:
- Joseph C. Bloodgood, M. D., Surgery.
- Harvey Cushing, M. D., Surgery.

To be Associates:
- Samuel Amberg, M. D., Pediatrics.
- Charles P. Emerson, M. D., Medicine.
- Joseph Erlanger, M. D., Physiology.
- Henry O. Reik, M. D., Ophthalmology and Otology.
- Florence R. Sabin, M. D., Anatomy.

To be Instructors:
- William W. Ford, M. D., Bacteriology.
- Harry T. Marshall, M. D., Medicine.
- Burton D. Myers, M. D., Anatomy.

To be Assistants:
- John B. Briggs, Jr., M. D., Medicine.
- Charles H. Bunting, M. D., Pathology.
- W. Rush Dunton, M. D., Psychiatry.
- A. P. C. Howard, M. D., Medicine.
- Arthur S. Loevenhart, M. B., Physiological Chemistry.
The university is especially fortunate in having secured the services of Professor James Mark Baldwin, LL. D., as Professor of Philosophy and Psychology. Professor Baldwin has had a distinguished career and comes to us in the height of his power. He was born in Columbia, S. C., studied at Princeton and in Germany, and has been connected with the faculties of Lake Forest University, University of Toronto, and Princeton University. It is the intention of the Trustees to develop the department under the leadership of Professor Baldwin, and, so far as this may be possible, to furnish opportunities for work in all branches of philosophy and psychology.

STATISTICS

The academic staff numbered during the year one hundred and forty-seven teachers, seventy-seven in the philosophical department and seventy whose work lay wholly in medicine. The number of students enrolled was six hundred and ninety-five, of whom two hundred and eighty-three were residents of Maryland, three hundred and ninety-three came here from thirty-nine other States of the Union, and nineteen from foreign countries. Among the students were five hundred and thirty-three already graduated, one hundred and eighty-seven of whom were enrolled in the department of Philosophy and the Arts, three hundred and forty-six in the department of Medicine. They came from one hundred and ninety-eight colleges and universities. There were one hundred and forty-seven matriculates (or candidates for the degree of Bachelor of Arts), and sixteen were admitted as special students, to pursue courses of study for which they seemed fitted, without
reference to graduation. The degree of Bachelor of Arts was conferred upon forty-six candidates, the degree of Doctor of Medicine upon forty-nine, and twenty-seven were promoted to the degree of Doctor of Philosophy.

The first table indicates the enrolment of students in each year since the university was opened in the autumn of 1876:

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Enrolled</th>
<th>Graduates, (incl. Fellows.)</th>
<th>Matriculates</th>
<th>Non-Matriculates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1876-77</td>
<td>89</td>
<td>54</td>
<td>12</td>
<td>23</td>
</tr>
<tr>
<td>1877-78</td>
<td>104</td>
<td>58</td>
<td>24</td>
<td>22</td>
</tr>
<tr>
<td>1878-79</td>
<td>123</td>
<td>63</td>
<td>25</td>
<td>35</td>
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<tr>
<td>1879-80</td>
<td>159</td>
<td>79</td>
<td>32</td>
<td>48</td>
</tr>
<tr>
<td>1880-81</td>
<td>176</td>
<td>102</td>
<td>37</td>
<td>37</td>
</tr>
<tr>
<td>1881-82</td>
<td>175</td>
<td>99</td>
<td>45</td>
<td>31</td>
</tr>
<tr>
<td>1882-83</td>
<td>204</td>
<td>125</td>
<td>49</td>
<td>30</td>
</tr>
<tr>
<td>1883-84</td>
<td>249</td>
<td>159</td>
<td>53</td>
<td>37</td>
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<tr>
<td>1884-85</td>
<td>290</td>
<td>174</td>
<td>69</td>
<td>47</td>
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<tr>
<td>1886-87</td>
<td>373</td>
<td>228</td>
<td>108</td>
<td>42</td>
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<tr>
<td>1887-88</td>
<td>420</td>
<td>231</td>
<td>127</td>
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<tr>
<td>1888-89</td>
<td>394</td>
<td>216</td>
<td>129</td>
<td>49</td>
</tr>
<tr>
<td>1889-90</td>
<td>404</td>
<td>229</td>
<td>130</td>
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<tr>
<td>1890-91</td>
<td>468</td>
<td>276</td>
<td>141</td>
<td>51</td>
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<tr>
<td>1891-92</td>
<td>547</td>
<td>337</td>
<td>140</td>
<td>70</td>
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<tr>
<td>1892-93</td>
<td>551</td>
<td>347</td>
<td>133</td>
<td>71</td>
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<tr>
<td>1893-94</td>
<td>522</td>
<td>344</td>
<td>123</td>
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<td>1894-95</td>
<td>559</td>
<td>412</td>
<td>126</td>
<td>51</td>
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<tr>
<td>1895-96</td>
<td>596</td>
<td>406</td>
<td>149</td>
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<tr>
<td>1896-97</td>
<td>520</td>
<td>344</td>
<td>144</td>
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<td>641</td>
<td>456</td>
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<td>462</td>
<td>163</td>
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<td>1899-1900</td>
<td>645</td>
<td>479</td>
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<tr>
<td>1900-01</td>
<td>651</td>
<td>473</td>
<td>158</td>
<td>20</td>
</tr>
<tr>
<td>1901-02</td>
<td>694</td>
<td>530</td>
<td>158</td>
<td>6</td>
</tr>
<tr>
<td>1902-03</td>
<td>695</td>
<td>533</td>
<td>147</td>
<td>16</td>
</tr>
</tbody>
</table>
During twenty-seven years, four thousand six hundred and forty-eight individuals have been enrolled as students, of whom seventeen hundred and seventy-seven are registered as from Maryland (including fourteen hundred and twenty-three from Baltimore), and two thousand eight hundred and seventy-one from seventy-three other States and countries. Three thousand and thirty-eight persons entered as graduate students, and sixteen hundred and ten entered as undergraduates. Of the undergraduates, four hundred and thirty-five have continued as graduate students, many of them proceeding to the degree of Doctor of Philosophy. It thus appears that three thousand four hundred and seventy-three persons have followed graduate studies here.

The following table indicates the geographical distribution of the students each year since the opening, as shown by the Annual Registers:

<table>
<thead>
<tr>
<th>Year</th>
<th>Of Maryland</th>
<th>Not of Md</th>
<th>Year</th>
<th>Of Maryland</th>
<th>Not of Md</th>
</tr>
</thead>
<tbody>
<tr>
<td>1876-77</td>
<td>59</td>
<td>30</td>
<td>1890-91</td>
<td>235</td>
<td>233</td>
</tr>
<tr>
<td>1877-78</td>
<td>71</td>
<td>33</td>
<td>1891-92</td>
<td>273</td>
<td>274</td>
</tr>
<tr>
<td>1878-79</td>
<td>76</td>
<td>47</td>
<td>1892-93</td>
<td>266</td>
<td>285</td>
</tr>
<tr>
<td>1879-80</td>
<td>97</td>
<td>62</td>
<td>1893-94</td>
<td>260</td>
<td>262</td>
</tr>
<tr>
<td>1880-81</td>
<td>95</td>
<td>81</td>
<td>1894-95</td>
<td>260</td>
<td>329</td>
</tr>
<tr>
<td>1881-82</td>
<td>97</td>
<td>78</td>
<td>1895-96</td>
<td>272</td>
<td>324</td>
</tr>
<tr>
<td>1882-83</td>
<td>106</td>
<td>98</td>
<td>1896-97</td>
<td>254</td>
<td>266</td>
</tr>
<tr>
<td>1883-84</td>
<td>123</td>
<td>126</td>
<td>1897-98</td>
<td>279</td>
<td>362</td>
</tr>
<tr>
<td>1884-85</td>
<td>130</td>
<td>160</td>
<td>1898-99</td>
<td>277</td>
<td>372</td>
</tr>
<tr>
<td>1885-86</td>
<td>130</td>
<td>184</td>
<td>1899-1000</td>
<td>262</td>
<td>353</td>
</tr>
<tr>
<td>1886-87</td>
<td>162</td>
<td>216</td>
<td>1900-01</td>
<td>270</td>
<td>381</td>
</tr>
<tr>
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<td>199</td>
<td>221</td>
<td>1901-02</td>
<td>273</td>
<td>421</td>
</tr>
<tr>
<td>1888-89</td>
<td>183</td>
<td>211</td>
<td>1902-03</td>
<td>283</td>
<td>412</td>
</tr>
<tr>
<td>1889-90</td>
<td>215</td>
<td>199</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Since degrees were first conferred, in 1878, eight hundred and two persons have attained the Baccalaureate degree, six hundred and twenty-three have been advanced to the degree of Doctor of Philosophy, and two hundred and seventy-two to the degree of Doctor of Medicine, as appears from the
following table,—the whole number of individuals graduated being fifteen hundred and thirty-five:

<table>
<thead>
<tr>
<th></th>
<th>B. A.</th>
<th>Ph. D.</th>
<th>B. A.</th>
<th>Ph. D.</th>
<th>M. D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1877-78</td>
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<td>4</td>
<td>1890-91</td>
<td>51</td>
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<td>1878-79</td>
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<td>1891-92</td>
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</tr>
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<td>1879-80</td>
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<td>1892-93</td>
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<td>1895-96</td>
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<td>1883-84</td>
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<td>1896-97</td>
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<td>1885-86</td>
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<td>17</td>
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<td>1886-87</td>
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<td>1887-88</td>
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<td>1888-89</td>
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<td>1902-03</td>
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<td>27</td>
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<td><strong>Mathematics and Astronomy,</strong></td>
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<td><strong>Physics,</strong></td>
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<td><strong>Chemistry,</strong></td>
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* Including only the courses offered to graduates in medicine.
The following table indicates the enrolment of students in the medical department since its opening in October, 1893:

<table>
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<tr>
<th>Year</th>
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<th>Doctors of Medicine</th>
<th>Total Enrolment</th>
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<td>1902-03</td>
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**COMMEMORATION DAY**

The public exercises of the twenty-seventh Commemoration Day were held in McCoy Hall, Monday, February 23, 1903. Dr. Edwin A. Alderman, President of Tulane University, delivered a noteworthy address, an abstract of which is printed in the *University Circulars* for April, 1903. The degree of Doctor of Philosophy was conferred upon four candidates. In the evening of the same day the annual meeting and banquet of the Alumni Association were held.

**PUBLIC LECTURES AND ASSEMBLIES**

The annual course of lectures on Early Colonial History, provided by the Maryland Society of the Colonial Dames of America, was delivered by Dr. Lyon G. Tyler, President of William and Mary College. The lectures, three in number, treated of the "Early Relations of Maryland and Virginia."

*Beginning with 1897 the courses offered to Doctors of Medicine have been given in May and June, after the compilation of the Register, and those in attendance are now counted in the enrolment of the succeeding year.*
Dr. Sidney Lee, of London, well-known as editor and author, gave four lectures on English Literature, on the Donovan Foundation, his general subject being "Foreign Influences on Elizabethan Literature."

The lectures on Social Economics, provided by Dr. E. R. L. Gould, of New York, were delivered (in French) by Professor Léopold Mabilleau, of Paris. The course included two lectures on topics of general educational interest and six lectures on "Les Idées Sociales dans la France Contemporaine."

Professor Frederick M. Warren continued his public lectures on French Literature, the course consisting of six lectures on the "Modern French Drama."

Dr. Gilman gave his annual course of lectures on educational topics, treating of the new educational movement in the South, the Carnegie Institution, liberal education and the professional schools, the Civil Service examinations.

Professor Andrew C. McLaughlin, of the University of Michigan, gave two lectures on the "Principles and Politics of the American Revolution."

Professor Alcée Fortier, of Tulane University, gave a lecture (in French) on "Les Créoles de la Louisiane, leur Histoire, leur Langue, et leur Littérature."

Mr. George W. Ritchey, of the Yerkes Observatory, described in a public address some "Recent Results in Astronomical Photography with the Instruments of the Yerkes Observatory."

Mr. John Hays Hammond, of New York, gave a lecture on "King Solomon's Mines, or the Mines of Ophir."

Professor Kirby F. Smith gave two lectures, in connection with the teachers' courses in Latin, on the "Mediaeval Legend of Vergil" and "Pompeii."
Dr. James Schouler continued his course on the "Life of the People during the Revolution," giving four lectures.

Public educational courses in the following subjects were given during the year:

1. Physics,—twenty lectures, accompanied by conferences, laboratory work, and excursions, on "Physical Questions of Daily Life," by Professor Ames.

2. Geography of Maryland,—twenty lectures, with conferences, laboratory exercises, and excursions, by Dr. G. B. Shattuck, assisted by Mr. B. L. Miller.


4. Latin,—three courses of twenty lessons each, by Dr. H. L. Wilson.

5. Art Interpretation and Criticism,—twenty lectures, with conferences and excursions, by Professor Alfred V. Churchill, of Columbia University.

A course of twenty lessons in elementary Hebrew was conducted by Dr. T. C. Foote, Rayner Fellow in Semitic Languages, for the benefit of clergymen and theological students.

Professor J. J. Thomson, Cavendish Professor of Experimental Physics in the University of Cambridge, gave, during the first week of June, two series of lectures in our physical laboratory, on (1) "A Theory of the Arc and Spark Discharges," (2) "Modern Theories of the Connection between Matter and Electricity." An invitation to attend these lectures was extended to our former students of physics, to members of the scientific bureaus in Washington, and to physicists and mathematicians throughout the country. About fifty persons attended the lectures.
The annual debate and contest in public speaking by undergraduate students was held in March. The thanks of the university are due to the gentlemen who rendered service as Judges, namely, Messrs. Olin Bryan, Eli Frank, Clayton C. Hall, John Hinkley, Joshua Levering, Julian LeRoy White.

The halls of the university have again been open for public meetings under the auspices of educational and philanthropic organizations, among them being the following:

The National Academy of Sciences, the Association of Colleges and Preparatory Schools of the Middle States and Maryland, the Modern Language Association of America, the American Oriental Society, the Eastern Art Teachers' Association, Charity Organization Society and the Association for the Improvement of the Condition of the Poor, of Baltimore, Baltimore Society of the Archæological Institute of America, the Municipal Art Society of Baltimore, Baltimore Field Foray Club (subsequently the Geographical Society of Baltimore), the Christian Endeavor Union of Baltimore, the Women's Auxiliary of the Maryland Civil Service Reform Association, Baltimore County Teachers' Association, the Public School Teachers' Association of Baltimore, the Wild Flower Preservation Society, Botany Club of Baltimore.

Commencement

The exercises of Commencement were held in the Academy of Music June ninth, 1903. Degrees were conferred as follows: Bachelor of Arts upon forty-six candidates; Doctor of Philosophy upon twenty-three; Doctor of Medicine upon forty-nine. The honorary degree of Doctor of Laws was conferred upon Professor Joseph John Thomson, Cavendish
Professor of Experimental Physics in the University of Cambridge. The principal address was delivered by Dr. Abram W. Harris, Director of the Jacob Tome Institute. In the evening the faculty received the graduates and their friends in McCoy Hall.

**Prizes**

The John Marshall Prize, which consists of a bronze likeness of Chief Justice Marshall, was awarded this year to James Albert Woodburn, (Ph. D., Johns Hopkins, 1890), in recognition of his recent works entitled "The American Republic and its Government" and "Political Parties and Party Problems in the United States." The recipients of this prize are named below:

1892. Henry C. Adams, Ph. D. 1897. J. Franklin Jameson, Ph.D.
1892. Charles H. Levermore, Ph. D. 1898. Charles D. Hazen, Ph. D.
1892. John M. Vincent, Ph. D. 1899. Jacob H. Hollander, Ph. D.
1892. Woodrow Wilson, Ph. D. 1900. James M. Callahan, Ph. D.
1894. Amos G. Warner, Ph. D. 1902. James C. Ballagh, Ph. D.
1895. Albert Shaw, Ph. D. 1903. James A. Woodburn, Ph. D.
1896. Westel W. Willoughby, Ph. D.

The Henrico Medallion, a copper bas-relief commemorating the foundation of a university at Henrico, in Virginia, in the year 1619, the gift of the Colonial Dames of America, Chapter I, was awarded on Commencement Day, for the first time, to Elbert Jay Benton (Ph. D., Johns Hopkins, 1903), as a recognition of his recent study entitled "The Wabash Trade Route in the Development of the Old Northwest."

The Tocqueville gold medal, the gift of the Baron Pierre de Coubertin, of Paris, commemorating the name of the illustrious Frenchman, Alexis de Tocqueville, was awarded on Commencement Day to Harry King Tootle (A. B., 1903) for his essay on "Léon Gambetta."
Publications

The various serial publications of the university have appeared as usual. The list now includes the following journals:

The American Journal of Mathematics, in its twenty-fifth volume; the American Journal of Philology, in its twenty-fourth volume; the American Chemical Journal in its thirtieth; Studies in Historical and Political Science, of which the twenty-first series is nearly completed, and several extra volumes have been issued; the Journal of Experimental Medicine, which is about to enter upon its seventh volume; and Modern Language Notes, of which eighteen volumes are nearly complete. The Contributions to Assyriology, the Memoirs from the Biological Laboratory, and the Journal of Terrestrial Magnetism have also been issued under the editorial direction of university professors.

Gifts

Mrs. William T. Barnard and her daughter, Miss Edith S. Barnard, have presented to the university a noteworthy collection of electrical apparatus formerly belonging to the “Phono-Multiplex Telephone Company,” in which the late Dr. William T. Barnard, of Baltimore, was largely interested.

Mr. William Ellinger has presented the collection of lacustrine objects deposited by him some years ago in the rooms of the historical department. He makes this gift as a memorial of the late Professor Adams.

Mr. Leopold Strouse has continued his generous gifts to the Leopold Strouse Semitic Library. These include, besides a number of the latest publications on Semitic
Languages and Biblical Literature, an excellent collection of Rabbinical literature comprising 1700 titles in about 3000 parts. It will be necessary soon to provide additional room for this collection.

Mr. Henry Sonneborn has made valuable additions to the Sonneborn collection of Jewish ceremonial objects.

The gift of one thousand dollars, made last year by an anonymous friend, to promote the systematic investigation of labor organizations, has been renewed for the coming year.

Dr. and Mrs. Christian A. Herter, of New York, have presented to the university the sum of twenty-five thousand dollars for the foundation of a memorial lectureship in the medical department, "designed to promote a more intimate knowledge of the researches of foreign investigators in the realm of medical science." One or more lectures are to be given in the field of pathology or physiology, and the honora-rium is to be the income of the endowment fund. The lectureship is to be known as the "Herter Lectureship."

A gentleman who desires his name withheld has offered to the university a complete set of books and pamphlets on the subject of spectroscopy, to which Mrs. Henry A. Rowland has added the books and pamphlets on this subject contained in the library of the late Professor Rowland. The complete collection is to be known as "The Henry A. Rowland Memorial Library."

Under the will of the late Mrs. Harriet Lane Johnston, formerly of Baltimore, the university will come into possession of a fund amounting to $90,000 for the establishment of scholarships in memory of Mrs. Johnston's husband and two sons who died some years ago.


THE ENDOWMENT FUND OF 1902

In my last report I stated that, at a meeting of the Board of Trustees held July 1, the following resolution was adopted:

Resolved, That the Committee which has had charge of raising the Million Dollar Fund be requested to make a formal written report of their proceedings in raising said fund and that they be requested to incorporate in said report the names of the subscribers to the fund.

In accordance with this resolution a carefully prepared report has been submitted to the Trustees and approved by them, after having been examined by those who were principally active in raising the fund. This report gives the names of the subscribers. It has been inscribed in full on the minutes of the Board.

All the subscribers, besides many other friends of the university, were invited to meet the President and Trustees at Homewood, June 5, 1903. A large company gathered in the beautiful grounds in front of the old mansion. The Homewood Garden Party is worthy of special note as being the first meeting of the members of the university on the land that has already played such an important part, and is destined to play a still more important part, in our history. It should be said that this historic meeting was made possible by the generosity of a few members of the Board of Trustees.

DEVELOPMENT OF HOMEOOOD

Last fall Mr. R. Brent Keyser, now President of the Board of Trustees, addressed the following letter to the President of the University:
Dear Sir:—As the proper development of the Homewood property, now belonging to the university, must come up for consideration in the near future, it seems desirable that expert opinion be obtained and submitted to the Board of Trustees covering such suggestions, sketches, plats, etc., as will enable the Board to adopt a general plan for the consistent and advantageous treatment of the property. It would seem that such a report can best be prepared under your personal supervision, and if it should be the pleasure of the Board to instruct you to have such a report prepared, giving you authority to call to your aid such assistance expert and otherwise as you may deem necessary, I will be very glad to contribute the sum of $5000 to be used by you towards paying the expenses incident thereto.

(Signed) R. Brent Keyser.

This letter was presented to the Board of Trustees at their meeting of November 3, 1902, and the following resolution was adopted:

Resolved, That the thanks of the Board be returned to Mr. Keyser, and that the subject be placed in the hands of the President of the university, with the request that he collect information and report his recommendations to the Board.

Acting in accordance with this resolution I have consulted with many who have been connected with the development of similar schemes elsewhere, and with the Trustees I have visited several of the larger universities and colleges. We have found that many of the older colleges have had no systematic plan for their development, and the result has been so inharmonious and unsatisfactory that in recent years many have appointed an official architect and have adopted a definite style of architecture for their future buildings. While this insures harmony, it was decided for many reasons that it would be unwise for the Johns Hopkins University to adopt this plan. The principal reason for this is that at present we
Development of Homewood

have no money for the buildings, and an architect now appointed might not be available when the work is undertaken. Further, the selection of one architect or firm of architects to the exclusion of all others does not seem desirable in the case of a public institution like the Johns Hopkins University. While an official architect insures harmonious, even if at times monotonous, results during his life, his successor would be likely to adopt an entirely different style and the harmony thus be destroyed.

It was further decided to adopt a method that will insure a symmetrical and harmonious development, and will not be dependent upon any one man, so that continuity may be secured during the life of the university. With this object in view it has been thought best to secure the services of an advisory board of three who, while experts themselves, will be debarred by their position from competing, and whose work will be confined to criticizing such plans as may be presented by others. I have appointed as members of the board Frederick Law Olmsted, of Brookline, Mass., Walter Cook, of New York, and J. B. Noël Wyatt, of Baltimore.

As vacancies occur on this board, they can be filled by the appointment of men of like standing and thus an intelligent criticism will be insured by men who are familiar with what has already been done and what is proposed, and, further, a continuity of design will be secured that will permit radical changes in the plan or in the style of buildings only after due consideration by those who are familiar with all the circumstances.

Mr. Olmsted is widely known. He is a member of the District of Columbia Commission now engaged in laying out the National Capital; is prominently connected with the
Development of Homewood

Boston parks, the work now in progress on the new Military Academy at West Point, and almost all the large landscape schemes in the country.

Mr. Cook is a member of the New York firm of architects, Babb, Cook and Willard. He was a member of the juries of award for the New York Public Library, the Washington University at St. Louis, and for the remodeling of the United States Military Academy at West Point, and the American representative on the international jury for the Phoebe Hearst plan for the University of California. He was also one of the architects of the Pan-American Exposition at Buffalo, and one of the three architects chosen for the Carnegie libraries in New York.

Mr. Wyatt is a member of the firm of Wyatt and Nölting, the architects of the new Baltimore Courthouse and of many other noteworthy buildings. He is also a member of the advisory board of architects of the St. Louis Exhibition, and has been for many years one of Baltimore's leading citizens in all matters pertaining to the beautifying of the city.

The advisory board will aid me in preparing a programme or specification. They will then assist in examining the plans submitted and in determining which one should be presented to the trustees.

Respectfully submitted,

IRA REMSEN.

January 4, 1904.
REPORTS ON THE INSTRUCTION IN THE
CHIEF BRANCHES OF STUDY

Prepared by the Principal Instructors in the Several Departments

Mathematics

Professor Morley gave the following courses:
1. Higher Geometry. *Three hours weekly, through the year.*
The course began with the theory and use of collineations and polarities, and their actual construction. The theory of rational curves was then developed, with especial reference to the work of Meyer and Waelsch, and the geometric statement of some analytic results of Hilbert.
This was an introduction to the subject of continuous groups, with especial reference to the recent use by Baker and others of the notion of a matrix.
The elements of Riemann's methods were given, and then we aimed at obtaining a working knowledge of elliptic functions.

Dr. Cohen gave the following courses:
This course began with a rather full account of the theory of series, including Fourier series; after which a detailed study of line, surface and multiple integrals was taken up. The second half of the course was devoted to the elementary theory of uniform and algebraic functions of the complex variable, and concluded with a short study of periodic functions.
The greater part of this course was devoted to the applications of Lie's theory to the solution of ordinary differential equations of the first and second orders. As much of his theory of transformation groups as was necessary was developed in the course of the work. The course concluded with an introduction into the theory of partial differential equations of the first order.

This course was based on Bianchi's *Lezioni di Geometria Differenziale.*

The seminar met each week to hear either an account of some important memoir or the results of some original investigation.

The usual undergraduate courses were given by Professor Hulburt, who also introduced a variation in the undergraduate work by giving practical instruction in graphical methods and computation, in a room set apart for the purpose. There are indications that this departure will be appreciated also by graduate students.

The American Journal of Mathematics is in its twenty-fifth volume. A portrait of Cremona appears in the January number.

**UNDERGRADUATE COURSES**

The undergraduate courses are much the same from year to year. During the past year they were given as follows:

*Third-Year Course (Elective):*

- Elementary Differential Equations. *Twice weekly through the year.* Dr. Cohen.

*Major Course:*

- Determinants. *Four hours weekly during October.* Professor Hulburt.
- Analytic Geometry of Three Dimensions. *Four hours weekly during October, November, and December.* Professor Hulburt.
- Differential and Integral Calculus (special topics). *Four hours weekly during January and February.* Professor Hulburt.
- Elements of Projective Geometry. *Four hours weekly during remainder of the year.* Professor Hulburt.

*Minor Course:*

- Analytic Geometry. *Four hours weekly, until December 17.* Professor Hulburt.
- Differential and Integral Calculus. *Four hours weekly, January 5 to the end of the year.* Professor Hulburt.

*For Candidates for Matriculation:*

- Algebra (special topics); Solid Geometry; Plane Trigonometry; Analytic Geometry (straight line and loci). *Four hours weekly through the year.* Mr. Converse.

**FRANK MORLEY,**

*Professor of Mathematics.*
Physics

The Physical Laboratory has been open daily during the year for the work of advanced and undergraduate students. Regular courses of lectures have been given and meetings have been held weekly for the reading of the current journals. The Physical Seminary has met once a week—the subject for the year's work being "Experiments connected with Electrical Phenomena." The list of papers presented is given below.

The regular courses of instruction were as follows:

By Professor Ames:
1. Physical Seminary. One hour weekly, through the year.
2. General Physics: Electricity and Magnetism. Four hours weekly, through the year.
3. General Physics: Minor Course. Three hours weekly, through the year.
4. Journal Meeting. One hour weekly, through the year.

By Professor Wood:
1. General Phenomena of Heat. Three hours weekly, the first half-year.
2. Theory of Spectroscopic Apparatus. Three hours weekly, the second half-year.
3. Recent Progress in Physics. At occasional intervals, through the year.

By Professor Bliss:
General Physics: Major Course. Four hours weekly, through the year.

By Dr. J. B. Whitehead, Jr.:
1. The Theory of Alternating Current Apparatus. Two hours weekly, through the year.
2. Reviews in General Physics. Weekly, through the year.

By Dr. L. A. Parsons:
The Elements of Astronomy. Weekly, through the year.

By Dr. L. A. Bauer:
Terrestrial Magnetism. A brief course of lectures and field work.

The laboratory for undergraduate students has been under the direction of Professor Bliss, with the assistance of Dr. Whitehead, Dr. Parsons, and Mr. W. M. Anderson. The work in Applied Electricity has been directed by Dr. J. B. Whitehead. The advanced work and the original investigations have been under the direction of Professors Ames and Wood, with the assistance of Dr. Whitehead and Mr. L. E. Jewell.

In the Physical Seminary, papers on the following subjects were read and discussed:

Professor Bliss—The Laws of Coulomb; the Laws of Electric Currents.
Dr. J. B. Whitehead — The Theory of Practical Electrical Instruments; Methods of Measuring Magnetic Inductance.
Dr. L. A. Parsons — The Magnetic Field due to a Charged Particle in Motion; Recent Methods of Wireless Telegraphy.
Mr. C. K. Edmunds — The History of Electrostatic Theories; Dielectric and Magnetic Hysteresis.
Mr. A. W. Smith — The History of Magnetic Induction; the Resistance of Wires to Alternating Currents.
Mr. W. M. Anderson — The History of Electrical Instruments; the Velocity of Electric Waves along Wires.
Mr. J. H. Cloud — The Discovery of the Fundamental Phenomena of Electricity.
Mr. J. Barnes — The Explanation of Vacuum Tube Phenomena; the Properties of Electrons and Ions.
Mr. H. D. Hill — The Value of the "Ratio of the Units."
Mr. E. P. Hyde — Magneto- and Electro-Striction.
Mr. J. T. Porter — The Magnetic Properties of Matter; Phenomena of Electric Convection.
Mr. H. W. Springsteen — The Discovery of Magnetic Phenomena.
Mr. J. H. Moore — The Absolute Measurement of Resistance; the So-called Inertia of Electricity.
Mr. G. W. Middlekauff — Absolute Measurement of an Electric Current; the Value of the Ratio of the Mass to the Charge of an Electron.
Mr. H. S. Uhler — The Early Experiments on Dielectric Capacity; Electro-magnetic Theories.
Mr. T. S. Elston — Mechanical Models of the Ether.

Sixteen advanced students have followed physics as their principal subject and four of these have absolved the requirements for the degree of Doctor of Philosophy. Their names and the titles of the investigations they have completed are:

J. H. Moore — A Study of the Absorption and Fluorescent Spectra of Sodium Vapor.

In addition to these researches which are now ready for publication several others should be mentioned.

Mr. J. Barnes has been making a most interesting study of the construction of the spectrum lines of mercury vapor under varying conditions of pressure and temperature by means of an interferometer.

Mr. G. W. Middlekauff, in addition to the work mentioned above, began a study of the same problem by means of an echelon spectroscope, but found the instrument unsuited for his purpose.
Mr. W. M. Anderson and Mr. J. T. Porter have begun a research on the infra-red spectra of various bodies with special reference to the laws of metallic reflection and polarization.

Mr. H. D. Hill has made an investigation of the improved methods of studying magnetic inductance, with a special view to the testing of the accuracy of various empirical formulae, notably the one proposed by the late Professor Rowland.

Dr. L. A. Parsons has continued his work on the spectra of hydrogen and has his doctor's dissertation ready for publication.

Dr. J. B. Whitehead, who has received an appropriation from the Carnegie Institution, has constructed new apparatus in order to continue his investigation in regard to the Magnetic Effect of Electric Displacement Currents.

Mr. L. E. Jewell has devoted considerable time during the year to putting in perfect order the three ruling engines of the laboratory, and they are now producing gratings of most excellent quality, and much more regularly than ever before. Mr. Jewell has also undertaken a new determination of certain standard lines in the arc spectra of the elements with a view to reconciling the discrepancies between existing measurements as made by different observers.

Professor Wood has completed several smaller researches such as the study of photographic reversals in spectrum photographs, but his main work for the year has been the investigation of the optical properties of sodium vapor and of nitrosodimethyl aniline.

Among the gifts to the laboratory by far the most important is that of a sum of money to collect and establish a library on the subject of spectroscopy to be known as the "Henry A. Rowland Memorial Library." The name of the generous friend of the university who has thus shown his interest in the laboratory and his appreciation of Professor Rowland's services to science is withheld at his request. Mr. Theodore Marburg has continued his gift of $200 annually for the purpose of buying books.

The committee appointed by the Board of Trustees to collect and publish the physical papers of Professor Rowland completed their work in November and the volume was distributed to its subscribers during the following month. It may be of interest to record the fact that the number of these volumes so far ordered from the University Press is in excess of 570.

It should be noted in this report that one of our former students, Dr. Harold Pender, who, while working in the laboratory, repeated the Berlin experiment of Professor Rowland on the subject of the Magnetic Effect of Electric Convection, was invited during the past winter to go to Paris taking with him the apparatus from this laboratory which he had used, and to repeat his experiments there in collaboration with M. Crémien, who, it may be remembered, had been unable to secure positive results with his apparatus. This invitation was extended to Dr. Pender by Professor
Courses of Instruction, 1902–1903

Poincaré, President of the French Physical Society, and Professor Bouty, Director of the Physical Laboratory of the Sorbonne; and through the generosity of the Carnegie Institution Dr. Pender was able to proceed to Paris. It is most satisfactory to record the fact that Dr. Pender was able to repeat his experiments successfully and to note the sources of error in the experiments which had so far proved negative.

Two of the students in the laboratory this year are holding positions in the National Bureau of Standards, Washington, and it is most pleasant to note the friendly co-operation with the physical laboratory which the Director of the Bureau thus manifests by giving the necessary permission to his Assistants.

During the year the students in physics have had the opportunity of listening to lectures by scholars from other universities, notably Professor Rutherford of McGill University.

The most noteworthy fact of the year, however, in this connection is that Professor J. J. Thomson, of the Cavendish Laboratory, Cambridge University, delivered a course of lectures in the month of June on the subject, "A Theory of the Arc and Spark Discharges." He also gave several lectures on the "Modern Theories of the Connection between Matter and Electricity." Many teachers of physics and others interested in science were invited by the university to be present, and the lectures were most interesting and inspiring.

J. S. Ames,
Professor of Physics and Director of the Physical Laboratory.

Chemistry

The lecture and class-room instruction in Chemistry which has been given during the year is indicated below:

By Professor Remsen:

The Chemistry of the Compounds of Carbon. Three times weekly through the year.

Meetings for reports on the Current Progress of Chemistry. Weekly through the year.

By Professor Morse:

Seminary for advanced students. Twice weekly through the year.

By Professor Renouf:

General Chemistry (Minor Course). Four times weekly through the year.

By Dr. H. C. Jones, Associate Professor of Physical Chemistry:

Physical Chemistry. Three times weekly through the year.
By Dr. J. E. Gilpin, Associate in Chemistry:
General Inorganic Chemistry (Major Course). *Four times weekly until Christmas.*
Compounds of Carbon (Major Course). *Four times weekly from Christmas until the end of the year.*

By Dr. C. E. Waters, Assistant in Chemistry:
Reviews in General Chemistry. *Weekly through the year.*

Thirty advanced students have followed chemistry as their principal subject. Four of these have absolved the requirements for the degree of Doctor of Philosophy. Their names and the titles of their dissertations are given below:

B. F. Carver.—A Study of Certain New Semipermeable membranes.
J. P. Coonv.—A Study of Certain New Semipermeable membranes.
F. H. Getman.—A Study of the Molecular Lowering of the Freezing Points of Concentrated Solutions of Certain Electrolytes.
A. Seidell.—The Precipitation of Zinc Oxide by Manganese Peroxide.

The titles to be given to other investigations, now in progress in the laboratory, or completed during the year, are:

1. Further Investigations of the two Chlorides of Orthosulphobenzoic acid. (President Remsen and K. G. Falk).
2. On the nature of the product formed by the Oxidation of Phenylthiosalicylic acid. (President Remsen and H. W. Doughty).
3. On the action of Ethylene Bromide on Thiourea. (President Remsen and M. B. Graff).
4. A further study of cells for the measurement of high osmotic pressures. (Professor Morse and J. C. W. Frazer).
5. New osmotic membranes, and the relation of the concentration of solutions to the rate of passage of water through semipermeable septa. (Professor Morse and E. S. Hall).
6. A redetermination of the atomic weight of lanthanum. (Dr. H. C. Jones).
7. The diminution in the association of a liquid effected by the presence of another associated liquid. (Dr. Jones and G. Murray).
8. The lowering of the freezing point of aqueous hydrogen peroxide by acids. (Dr. Jones and G. Murray).
10. A study of the composition of the oxides of nickel. (Dr. J. E. Gilpin).

The work of Messrs. Morse and Frazer is aided by a grant from the Carnegie Institution.

Volumes XXVIII and XXIX of the American Chemical Journal have been issued.

II. N. Morse,
Professor of Analytical Chemistry.
Geology

The Geological Laboratory has been open daily during the year for the work of both advanced and undergraduate students. Lectures and classroom work have been conducted as follows:

(a) General Geology, by Professor Clark and Dr. Shattuck. *Four lectures and one afternoon in practical work each week throughout the year.*

(b) Principles of Paleontology, by Professor Clark. *One lecture each week from November to April.*

(c) Systematic Paleontology, by Professor Clark and Dr. Martin. *One lecture and one afternoon of laboratory work each week throughout the year.*

(d) Geological Physics, by Professor Reid. *Two lectures each week throughout the year.*

(e) Geological Field Methods, by Professor Reid and Associate Professors Mathews and Shattuck. *Two lectures each week for one-half year.*

(f) Mineralogy, by Associate Professor Mathews. *Four lectures and two laboratory exercises each week throughout the year.*

(g) Petrography, by Associate Professor Mathews. *Three lectures and two afternoons of laboratory work each week throughout the year.*

(h) Meteorology, by Dr. O. L. Fassig. *Twenty lectures in January and February.*

(i) Stratigraphic and Structural Geology, by Mr. Willis. *Two lectures each week, January to March.*

(j) Terrestrial Magnetism, by Dr. Bauer. *Five lectures in April.*

(k) Geological Conferences. *Weekly, throughout the year.*

Original Work and Publications. Original work has been carried on by Professor Clark, in conjunction with several assistants, on various phases of Maryland geology, the results of which are appearing from time to time in the reports of the Maryland Geological Survey and other scientific publications. Professor Clark has also been engaged in a general study of the Mesozoic and Cenozoic Echinodermata of the United States. He was also actively employed in the management of the State Geological Survey and State Weather Service and in the supervision of the publications of those two bureaus, both of which are carried on under the auspices of the university. He also continued his work as Commissioner on behalf of the State of Maryland in the supervision of the survey of the Mason and Dixon Line. He was appointed Special Agent of the U. S. Census for the collection of the mineral statistics of the State of Maryland.

Professor Reid has continued his glacial studies with special relation to his visit to Mt. Hood and Mt. Adams during the summer of 1901. A seismometer of the Milne type has been mounted, under the direction of Dr. Reid, in the basement of the geological laboratory and has recorded a large number of earthquakes which have taken place in distant regions. He has also been put in charge of all earthquake records received by
the U. S. Geological Survey. As Chief of the Highway Division of the Maryland Geological Survey, Professor Reid has directed the work carried on by this division. Several of the counties are annually spending a portion of their funds for the permanent improvement of their roads, which is done under the specifications and in some cases under the direction of the Highway Division.

Associate Professor Mathews has been engaged as heretofore in the study of the various problems connected with the Piedmont belt of Maryland, his investigations still being mainly confined to the northern part of this area, where he has had the assistance of several of the graduate students of the department. Dr. Mathews was also engaged during much of the year as Assistant State Geologist in directing certain phases of the State Geological Survey work and in editing the various publications of that bureau.

Associate Professor Shattuck has been employed during the year in a study of the Miocene and Pleistocene deposits of the southern and eastern counties of the State, where he has had the assistance of several of the graduate students of the department. He published during the year a report on the later formations of Cecil county together with large scale geological maps of this area and of Calvert and St. Mary's counties. These and other areas already mapped afford the basis for an important monograph on the Miocene formations of Maryland, which is now in press. In this work he has had the cooperation, on the paleontological side, of Dr. Martin, Professor Clark, and other members of the Survey staff. Dr. Shattuck has conducted a course of lectures in physiography in the public lecture series, in which he has had the aid of Dr. Miller of the department. He was also instrumental in organizing a successful course of lectures under the auspices of the Geographical Society of Baltimore and in perfecting plans for a scientific expedition to the Bahama Islands during the summer of 1903.

Dr. Fassig has continued his detailed study of the climate of Baltimore and has practically completed his monograph on this subject, which will be printed in the second report of the State Weather Service. Several shorter papers on the climate of certain counties of the State appeared during the year in the publications of the State Geological Survey. Dr. Fassig as meteorologist of the State Weather Service, has been carrying on a number of special studies, in addition to his regular work as Chief of the Baltimore office of the U. S. Weather Service.

Dr. Martin has devoted the greater part of his time to the work of the Maryland Geological Survey, and has completed during the past year his report on the geology of Garrett county as well as the areal mapping of the western part of Washington county. Dr. Martin has been engaged, in conjunction with Professor Clark, in the preparation of a report on the coal deposits of Maryland, and with Dr. Shattuck in the study of the faunas of the Miocene.
Dr. Miller was engaged in a study of Prince George's county and in extending the areal mapping of the Pleistocene deposits, under Dr. Shattuck.

Mr. Johannsen has been engaged in the study of the serpentines of Harford county, especially in reference to their generic relations. This work was carried on under the direction of Dr. Mathews.

Several other investigations were started by members of the department which will result in later publications.

Excursions. Numerous excursions were made with the graduate and undergraduate students into characteristic areas in the Coastal Plain and the Piedmont Plateau as in former years. These excursions are regarded as an important adjunct to the classroom and laboratory work.

Scientific Societies. The fortnightly meetings of the Geological Society of Washington, as well as the meetings of the National Geographic Society, were attended from time to time during the winter by the instructors and students of the department, who, by the courtesy of the Geological Society of Washington, are elected to non-resident membership in that body.

Cooperation. Active cooperation was maintained as in the past with the chiefs of several of the National and State bureaus. The cooperation of the U. S. Geological Survey, through its chief, Hon. Charles D. Walcott, and of the U. S. Weather Bureau, through its chief, Professor Willis L. Moore, has been of much importance to the work of the department. Mr. Bailey Willis, of the former organization, and Professor Cleveland Abbe, of the latter, have been granted the opportunity of giving lectures to the students in geology, which have added much to the courses of instruction. Dr. L. A. Bauer has also been permitted by the Superintendent of the U. S. Coast and Geodetic Survey to give lectures on the subject of Terrestrial Magnetism.

Apparatus and Collections. Several valuable additions have been made to the apparatus and collections during the year. The library has been considerably enlarged by gifts of books and maps, especially by the gift of a complete set of the reports and maps of the Geological Survey of the United Kingdom from Mr. B. N. Baker, of the Board of Trustees.

WM. BULLOCK CLARK,
Professor of Geology.
Zoology and Botany

During the past academic year the biological laboratory has been open for advanced and collegiate students, and lectures and class-room instruction have been given as follows:

By Professor Brooks:

Advanced Zoology. For graduate students. Three lectures a week in December, January, February, and March.

Meeting of graduate students for reports on the current literature of Zoology and Botany. (With Dr. Andrews and Dr. Johnson.) Weekly through the year.

Elementary Zoology. Daily, from October to April.

By Dr. Andrews:

General Biology. Daily, to April 1.

Elements of Embryology. Three times a week, from April 1 to end of session.

Comparative Embryology. Daily, from April 1 to end of session.

The Structure of Protoplasm. Ten lectures in April.

By Dr. Barton:

Analysis of Plants. Twice a week, from April 1 to end of session.

By Dr. Johnson:

Morphology of Plants. For graduate students. Two exercises a week, from October to April.

Physiology of Plants. For graduate students. From October to April.

Elementary Botany. Daily, from January to April.

Elective Course in Botany. Twice a week, from January to April.

Dr. Grave:

Five lectures on Echinoderms, for graduate students, in April.

Professor T. H. Morgan, of Bryn Mawr College:

One lecture on Embryology.

Advanced Work in Zoology and Botany.

A fellowship was awarded to D. H. Tennent, who continued his work on the Parasite of the Oyster, up to March 1, when he resigned the fellowship to accept a position in Randolph-Macon College. The Adam T. Bruce Fellowship was awarded to R. P. Cowles, who has continued through the year his studies of Phoronis.

The following researches have been carried on in the laboratory during the year: The Embryology of Salpa cordiformis; The genus Pyrosoma; The Anatomy and Embryology of Phoronis; The Trematode Parasites of the Oyster; The Embryology of the Oyster; The conditions which affect natural and artificial Oyster Beds; The Comparative Study of the Larvae
of Echinoderms; The Nematocysts of Nudibranch Mollusce; The Morphology and Physiology of the Pitcher Plant; The Piperaceae; The Development of Mosses and Ferns; The Breeding Habits of the Crayfish; The Development of the Chloranthaceae and the Hacystemaceae.

The following publications by investigators in the laboratory have appeared during the year: A useful Light in the Laboratory, by Dr. Andrews (Science, June, 1902); The Origin of the Larvae of Echinoderms, by Dr. Grave; The Conditions which affect the Oyster Beds, by Dr. Grave; The Development of Gonionema Murbachii, by Dr. Perkins; The West Indian Madreporarian Polyps, by Dr. Duerden; The Life History of Planaria maculata, by Dr. Curtis; The Law of Von Baer, by O. C. Glaser; Notes on the Rearing of the Larvae of Polygordius appendiculatus, by R. P. Cowles; The Nematocysts of Nudibranch Mollusce, by O. C. Glaser.

The degree of Doctor of Philosophy was bestowed upon D. N. Shoemaker, whose dissertation was upon "Hamamelis."

Printed copies of the dissertations of J. E. Duerden, H. F. Perkins, and W. C. Curtis have been presented to our library in accordance with our rules. The dissertation of W. C. Coker is in press.

The Marine Laboratory of the U. S. Fish Commission, at Beaufort, N. C., was ably directed last summer by Dr. Caswell Grave, Associate in Zoology, and a number of instructors and graduate students from the laboratory spent the summer there in zoological research.

Aided by a grant from the Botanical Society of America, Dr. Johnson spent the months of April and May in botanical researches in the mountains of Jamaica. He was accompanied by F. Shreve, a graduate student. Dr. Johnson has brought back material for future researches, and a valuable collection of botanical specimens.

I desire to express my thanks to the U. S. Commissioner of Fisheries for a supply of specimens of Salpa cordiformis which were collected and preserved for me at Wood's Holl, and also for the opportunity to work at Beaufort, N. C., which has been given us.

Our thanks are also due to the American Fruit Company for their cooperation with Dr. Johnson in his recent expedition to Jamaica.

William K. Brooks,
Professor of Zoology.
Physiology

The following courses in Animal Physiology were given during the past academic year:

By Professor Howell:
1. Elementary courses on the physiology of muscle and nerve, the central nervous system, the special senses, the blood and respiration. *Two to four times a week from October to March.*
2. A weekly meeting for the discussion of the current literature in Animal Physiology.
3. The Physiological Seminary composed of the instructors and the graduate students. This Seminary met weekly, and papers were presented giving the biography and scientific work of the most distinguished physiologists of the first half of the 19th century.

By Dr. Dawson:
An elementary course on the physiology of circulation and respiration. *Twice weekly during March, April, and May.*

By Dr. Erlanger:
An elementary course on the physiology of secretion, digestion, and nutrition. *Twice weekly during March, April, and May.*

By Professor Howell, assisted by Drs. Dawson and Erlanger:
A laboratory course in experimental physiology. *Four times weekly during October, November, and December.*

The course of elementary lectures and laboratory work usually given to the graduate students in the Philosophical Faculty, with the purpose of fulfilling the requirements of a subsidiary subject for the degree of Doctor of Philosophy, was omitted during this session.

Mr. E. G. Martin was appointed Fellow in Physiology and began the experimental work upon his thesis for the degree of Doctor of Philosophy. The general problem which he has undertaken is to study the effect of potassium salts upon the rhythmic activity of heart muscle.

Special investigations were carried out during the year by the various members of the staff, by the two graduate students in the philosophical faculty who are making Animal Physiology their major subject, and by a number of the advanced students in the medical department. The subjects under investigation were as follows: the proteids of the blood-serum; a study of systolic and diastolic blood-pressure in animals under varying experimental conditions; a study of the causation factors in cyclic albuminuria; the development of an apparatus adequate to clinical purposes for determining systolic and diastolic blood-pressure in man; the effect of increased intra-tympanic pressure; the effect of anesthesia upon the maintenance of irritability in excised nerves of animals; the isolation of the toxic proteids in foreign serums; the effect of potassium...
salts upon the rhythmic activity of the heart muscle; the permanent and temporary effect of removal of the semi-circular canals. Some of these researches have been finished and published, but most of them will be continued during the coming session.

W. H. Howell,  
Professor of Physiology.

Greek

Under the direction of Professor Gildersleeve the advanced students of Greek have been organized into a Greek Seminary. According to the plan of the Seminary, the work of each year is concentrated on some leading author or some special department of literature. During the past year the centre of work has been Aristophanes.

In the Seminary proper, which met twice a week during the academic year, the Aristophanic comedies selected for closer study were The Acharnians, The Frogs, and The Birds; and the members of the Seminary were required to present in turn critical and exegetical commentaries on parts of these plays. Introductory lectures to a number of the plays were also prepared by the students and made the subject of comment and criticism by the Director. In connection with the Seminary, the Fragments of the Old Attic Comedy were studied, and lectures were delivered by the Director on Aristophanes, his art and his times.

Besides conducting the Seminary course and the auxiliary work, Professor Gildersleeve delivered twelve lectures on the stylistic significance of Homeric Syntax, gave some eighteen readings in the Greek Tragic Poets, and conducted twenty-four exercises in extemporaneous translation from Greek into English and English into Greek.

Associate Professor Miller conducted readings twice a week in Aristophanes (first half of the session) and gave a course of lectures and practical exercises in Greek Rhythms and Metres (second half of the session).

Undergraduate courses were conducted as follows:

Associate Professor Spieker:

Lucian, Vera Historia. Twice weekly, first half-year.
Epistle of St. James; Aristophanes, Frogs. Twice weekly, second half-year.
Plato, Phaedo. Three times weekly, first half-year.
Lyric Poets; Sophocles, Ajax. Three times weekly, second half-year.
Xenophon, Economicus. Three times weekly, first half-year.
Lysias, Epitaphius; Euripides, Alcestis. Three times weekly, second half-year.

Prose Composition (two classes). Weekly, through the year.
Latin

Associate Professor Miller:
Homer, Iliad, book vi; Herodotus, book vii. Twice weekly, through the year.
Prose Composition. Weekly, through the year.
Undergraduates read privately for examination the following books:
Aristophanes, Clouds.
Aeschylus, Prometheus.
Homer, Odyssey, books i, ix, x.
Xenophon, Hellenica, book i.

B. L. Gildersleeve, Professor of Greek.

Latin

The organization and plan of the Latin Seminary are similar to those adopted in the department of Greek. Each year special attention is given to some one leading department of the literature. During the last session the centre of work was the Roman Comedy. Under the direction of Professor Smith the Seminary met twice a week throughout the year. The members presented in turn critical and exegetical commentaries on given passages, analyses of select plays, and papers founded upon various special investigations. The work of the Seminary was accompanied by a course of lectures on Plautus given by the Director.

Besides the Seminary course and the auxiliary work, Professor Smith lectured once a week throughout the year on the history of the Roman Comedy and once a week during the second half-year on the history of the Roman Tragedy. During the first half-year he gave a course of twenty lectures on theatres and theatrical performances among the Romans. He also conducted a Journal Club which met fortnightly throughout the year to report and discuss recent work of interest in the field of Greek and Latin philology.

Associate Professor Wilson lectured once a week during the first half-year on Latin Palaeography and conducted a series of practical exercises in the reading of fac-similes of important manuscripts. During the second half-year he lectured once a week on Problems of Latin Accentuation. He also met the advanced students each week throughout the year for the rapid reading of the plays of Plautus and Terence.

Undergraduate courses were given as follows:

By Professor Smith:
History of Roman Literature. Weekly, through the year.

By Associate Professor Wilson:
Petronius and Valerius Flaccus. Two hours weekly, first half-year.
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Lucretius. Two hours weekly, second half-year.
Juvenal; Pliny's Letters. Three hours weekly, first half-year.
Plautus; Terence. Three hours weekly, second half-year.

By Dr. Guernsey:
Livy, two books. Three hours weekly, first half-year.
Horace (selections). Three hours weekly, second half-year.
Prose Composition. Two hours weekly, through the year.
Cicero, De Amicitia; Sallust, Catiline. Two hours weekly, first half-year.
Ovid (selections); Vergil, Georgics. Two hours weekly, second half-year.
Prose Composition. Weekly, through the year.

Undergraduates read privately for examination the following books:
Cesar, Bellum civile, book i.
Tacitus, Germania.
Ovid, Fasti (selections).
Vergil, Aeneid, books ix and xii.
Quintilian, book x.
Plautus, Miles Gloriosus.

Kirby Flower Smith,
Professor of Latin.

Sanskrit and Comparative Philology

The studies which are carried on under this head may be divided into three sections. The first deals with the ancient and mediaeval languages of India (Vedic and Classical Sanskrit, Prakrit, and Pali); the second with certain more remote languages of the Indo-European family whose study is not otherwise provided for in this university (Avestan Persian, Lithuanian, etc.); the third with Linguistic Science and the Comparative Grammar of the Indo-European languages in general.

During the session of 1902-3 the Vedic Seminary, under the direction of Professor Bloomfield, was engaged in the study of the Rig-Veda, with special reference to its most representative religious and mythological ideas. Under the methods of Vedic study pursued here complete restriction to any single document is precluded. The Vedas are regarded as a unit; every text is studied with reference to the related conceptions of the remaining texts of the literature. In this way were interpreted a considerable number of Vedic hymns dealing with the leading themes of the Rig-Veda: prayers to special divinities, legendary hymns, and hymns that illustrate the main features of Vedic life.

Mr. L. C. Barret, Fellow in Sanskrit, continued the work on the Kashmirian Atharva-Veda, commenced last session. His results are embodied in a dissertation for the degree of Doctor of Philosophy, entitled The First Book of the Kashmirian Atharva-Veda.
Professor Bloomfield was enabled during the summer of 1902 to collect from certain manuscripts the last outstanding materials for the Concordance of the Vedas. He has been engaged upon this work since 1891; it has now gone to the press, to be published by the Harvard Oriental Series.

An advanced course in Pāli, the language of Southern Buddhism was carried on through the year. Selections from the Milinda-Pañha (the questions of King Menander), the Sutta-piṭaka, and the Vinaya-piṭaka were made the basis for the study of the leading features of Buddhism. The study was prefaced by a course of lectures on the development of Buddhism out of the earlier philosophic and religious ideas of the Hindus.

To the study of Classical Sanskrit were given four hours a week during the first semester, and two during the second. The subjects were readings from the Nala and the Hitopadeśa, including the regular beginners' course of two hours a week during the session. The latter is the formal introduction to the study of Indian philology, as well as of the Comparative Grammar of the Indo-European languages. Mr. Barret assisted in these instructions.

Dr. J. A. Ness, Fellow by Courtesy, conducted a course in the Lithuanian language and literature throughout the year.

The work in Comparative Philology was two-fold. First, a course of lectures during the session on General Comparative Philology. This began with a sketch of the linguistic ethnology of the Indo-European peoples, dealing with their ethnical interrelations, their original geographical seat (the so-called Aryan question), and their common characteristics. Then came in brief survey sketches of India, the Vedas, Brahmanism, Buddhism; Persia, the Achemenidan inscriptions, the Zoroastrian (Avestan) religion and literature; the Indo-European peoples on the boundary line between Asia and Europe; the European peoples. This was followed by lectures and readings on the history and principles of Linguistic Science.

A second course in the Comparative Grammar of the Indo-European languages dealt with the consonants. It began with the physiological phonetics of the consonants, and continued with their history, especially as they appear in the Classical languages, Sanskrit, and the Teutonic languages. Both the last mentioned courses were given by Professor Bloomfield:

Maurice Bloomfield,
Professor of Sanskrit and Comparative Philology.
Oriental Seminary

In the Oriental Seminary, under the direction of Professor Haupt, twenty-eight courses in the various departments of Oriental research were given during the past year, special attention being paid to the interpretation of the Bible as well as to Oriental History and Archaeology.

Eleven hours weekly during the first half-year, and thirteen hours weekly during the second, were devoted to the study of Hebrew and the Old Testament. In the Old Testament Seminary, Professor Haupt gave, two hours weekly, through the year, a Critical Interpretation of Selected Messianic Psalms, preceded by some introductory lectures on the origin of the Psalter, the Messianic idea in the Old Testament and in cuneiform literature, the history of the Maccabean period, the Dispersion of the Jews, the form of Hebrew poetry, etc. Professor Haupt also conducted a series of weekly exercises in Hebrew Prose Composition, the students translating idiomatic English sentences into Hebrew. Dr. Blake, Instructor in Oriental Languages, gave a course in Hebrew Syntax, and in conjunction with the Bayner Fellow in Semitic, Dr. Foote, conducted the Second Year's Course in Hebrew, two hours weekly through the year. During the second half-year Dr. Rosenau met a class for the reading of Unpointed Hebrew Texts, and also conducted exercises in Hebrew Conversation. The instruction in Elementary Hebrew was given by Dr. Foote, under the supervision of Professor Haupt, two hours weekly through the year. Dr. Foote also gave a course of lectures on the Literature of the Old Testament, on the basis of the Authorized Version.

Associate Professor Johnston lectured on the History of the Ancient East, with special reference to the History of Israel, and also gave a series of lectures on Biblical Archaeology. During the second half-year Dr. Rosenau lectured on the Talmud.

Professor Haupt gave a course of lectures on Comparative Semitic Grammar with special reference to roots and stems in Semitic. In Biblical Aramaic, Dr. Blake gave a minute grammatical analysis of the Aramaic portions of the Book of Ezra.

In Syriac Professor Johnston gave an elementary course during the second half-year, and a more advanced course through the year, while Professor Haupt conducted a series of exercises in Syriac Prose Composition.

In Arabic, Professor Haupt conducted weekly exercises in Prose Composition, while Professor Johnston met a class for the reading of selections from Arabic Historians. The instruction in Elementary Arabic was given by Dr. Blake, and the Fellow in Semitic, Mr. Oussani, interpreted selected sûras of the Kûrdû, during the first half-year, and conducted exercises in reading Unpointed Arabic Texts, during the second half-year. Mr. Oussani also gave a course in Arabic Conversation.
In Ethiopic, exercises in Prose Composition were conducted by Professor Haupt, while Dr. Blake interpreted Selected Texts, in Dillmann's Chrestomathy.

Four hours weekly were devoted to the study of Assyriology. Professor Haupt gave a series of lectures on Sumerian Grammar, and interpreted selected Sumerian Hymns and Penitential Psalms. He also explained the Babylonian Nimrod Epic, and conducted weekly exercises in Assyrian and Sumerian Prose Composition, the students translating Arabic sentences and selected Hebrew texts into Assyrian, and Assyrian sentences into Sumerian. Under the guidance of Professor Johnston, a class met, two hours weekly through the year, for the study of Assyrian and Babylonian Historical Inscriptions.

In Egyptology Professor Johnston gave a course in Hieroglyphic Egyptian; he also interpreted selected Hieratic Papyri.

Two courses in Tagalog, the most important native language of the Philippine Islands, an elementary and a more advanced course, were conducted by Dr. Blake.

As delegate of the Johns Hopkins University, the Smithsonian Institution, and the American Oriental Society, Professor Haupt attended the Thirteenth International Congress of Orientalists, held at Hamburg in September, 1902. He read three papers in the Semitic section of the Congress: (1) The Poetic Form of the Biblical Love-ditties; (2) Quotations in the Old Testament; (3) Tarshish. Abstracts of these papers will appear in the Proceedings of the Congress. The paper on Tarshish will be published in full in the Proceedings of the American Philosophical Society.

At the meeting of the Society of Biblical Literature, held in New York, December, 1902, Professor Haupt read two papers: (1) The Poetic Form of the First Psalm; (2) The Stones of Tarshish. The first paper appeared in the April number of the American Journal of Semitic Languages (vol. xix, pp. 129-142), while the July number of this Journal contains a paper by Professor Haupt on Isaiah's Parable of the Vineyard. The same number contains also a review of R. F. Harper's Assyrian Letters (vols. vi-viii), by Professor Johnston.

Two elaborate dissertations by graduates of the Oriental Seminary were published during the session: one by Dr. Rosenau on Hebraisms in the Authorized Version of the Bible, a volume of 283 pages, and the other (255 pp.) by Dr. Guttmacher, on Optimism and Pessimism in the Old and New Testaments. Dr. Rosenau also published an illustrated book on Jewish Ceremonial Institutions and Customs, with a catalogue of the Sonneborn Collection (193 pp.)

At the annual meeting of the American Oriental Society, held in Baltimore, April 1903, twenty-three papers were presented by members of the Oriental Seminary: viz., Professor Haupt: (a) David's Dirge on the Death of Saul and Jonathan, (b) Difficult Passages in the Gilgamesh
Courses of Instruction, 1902-1903

Epic, (c) Bible and Babel, (d) Drugulin's Marktsteine;—Associate Professor Johnston: (a) Moses and Hammurabi, (b) Cuneiform Medicine;—Dr. Blake: (a) Intransitive Verbs in Hebrew, (b) Professor August Fischer's Notes on the Siloam Inscription, (c) Sanskrit Loan-words in Tagalog;—Dr. Rosenau: (a) The Sonneborn Collection of Jewish Ceremonial Objects, (b) Some Hebraisms in the New Testament;—Dr. Foote: (a) The Diphthong ai in Hebrew, (b) Some Unwarranted Innovations in the Hebrew Text of the Bible;—Mr. Oussani: (a) Mourning Rites and Customs in Early Arabia, (b) Phonetic Differences between the Eastern and Western Dialects of Syriac, (c) Origin and Development of the Arabic Dialects;—Mr. McPherson: The Words śfrāḥ and niṣmdn in Isaiah xxviii. 25;—Mr. Dennis: (a) The Transliteration of Egyptian, (b) Egyptian Stone Implements;—Mr. Seiple: (a) Tagalog Poetry, (b) The Tagalog Numerals, (c) Recent Papyrus Finds in Egypt;—Mr. Ember: The Coronation of Aristobulus.

Abstracts of these papers are given in No. 163 of the University Circulars [pp. 47-91] issued at the end of the session (June, 1903). This number contains also an abstract of Professor Haupt's paper on Archaeology and Mineralogy, read at the general meeting of the American Philosophical Society in Philadelphia, April 2, 1903, and his paper on Philippine Problems, read at the meeting of the American Oriental Society in Philadelphia, April 20, 1900; Dr. Blake's paper on Babylonian and Atharvan Magic, and Mr. Seiple's Note on Professor Haupt's cuneiform congratulatory message to Professor Gildersleeve. Dr. Blake's paper on Intransitive Verbal Forms in Hebrew is published in the Journal of the American Oriental Society, vol. xxiv, pp. 145-204.

In Drugulin's Marktsteine aus der Weltliteratur in Originalschriften, containing selections from 34 different languages in their original characters, Professor Haupt published (pp. 61-67) a paper on a cuneiform oracle to King Esarhaddon of Assyria, with some comments on the development of the cuneiform system of writing, and (pp. 38-46) a metrical translation, with commentary, of the Hebrew text of the opening chapter of Deuter-Isaiah (Is. xi).

Before the University Philological Association, members of the Oriental Seminary read the following papers: Professor Haupt (Dec. 19): King Solomon's Mines; Associate Professor Johnston (Feb. 20): The Laws of Hammurabi; Dr. Blake (Oct. 17): Analogies between Semitic and Tagalog (abstract in No. 163 of the University Circulairs); Mr. Seiple (Nov. 21): Theocritean Parallels to the Song of Songs (printed in the January number of the American Journal of Semitic Languages, vol. xix, pp. 108-115).

Professor Johnston also read a paper (April 20) on Magic and Medicine in Ancient Babylonia before the Historical Club of the Johns Hopkins Hospital.

The first part (Iviii + 148 pp.) of the fifth volume of the Contributions to Assyriology and Comparative Semitic Grammar, edited, with the cooperation of
the Johns Hopkins University, by Professor Haupt in conjunction with Professor Friedrich Delitzsch, of Berlin, appeared at the end of the session. It contains a number of modern Arabic stories (with a glossary and a grammatical sketch) collected by Professor Meissner, of Berlin, during his sojourn in the ruins of Babylon. The second part of the fifth volume, containing an edition of the Arabic poems of Mutalamis by Professor Vollers, of Jena, formerly Director of the Khedivial Library at Cairo, Egypt, is in press.

The Sonneborn Collection of Jewish Ceremonial Objects was increased by a number of valuable additions, and several rare objects with interesting historical associations will be added before the end of next session.

The Strouse Semitic Library of the Oriental Seminary received during the past year, besides a number of the latest publications on Semitic Languages and Biblical Literature, an exceptionally valuable addition in an excellent collection of Rabbinical literature comprising 1,700 titles in about 3,000 parts.

PAUL HAUTF,
Professor of Semitic Languages.

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English

1. Advanced Courses.

The English Seminary was conducted by Professor Bright. The Seminary met, throughout the year, twice a week in sessions of two hours each. At the beginning of the year the pseudo-Chaucerian literature was studied. The rules and principles of criticism by which the genuine work of the poet is distinguished from that which in an uncritical manner has from time to time been attributed to him, were studied and applied; and special attention was given to the texts contained in Skeat's volume, entitled Chaucerian and Other Pieces.

Beginning in the third month of the academic year, the work of the Seminary was on the Cædmonian and Cynewulfian poetry of the Anglo-Saxon period. The principles of textual criticism were inculcated by a minute reading of Exodus and Christ and Satan. For all aspects of the question of the constitution of the so-called schools of poetry, the history of opinion relating to the life and works of Cædmon and Cynewulf were reviewed and discussed in lectures by the director and in reports and essays by the members of the Seminary. A number of the principal poems in the two groups (Exodus, Daniel, Christ and Satan, the Cross poems, the Judgment poems, the 'Gifts' poems, etc.) were especially exploited for doctrine and method in literary workmanship. An attempt was made to establish a new classification of much of this poetry on the basis of the 'Christian Year' and the liturgy of the Church. The Physiologus also
furnished an occasion for an excursion into the wider domain of European literature.

Professor Bright lectured twice a week on Historical English Grammar. These lectures were begun with a discussion of word and sentence stress in the Indo-European languages. The grammatical phenomena connected with accentuation were then considered with special reference to Anglo-Saxon, and thereafter the history of the English system of stress and emphasis was traced to the present day. During the second half-year the lectures consisted in an exposition of the Anglo-Saxon and Middle English Grammars, chiefly on the basis of Kaluza’s *Historische Grammatik der englischen Sprache*.

Professor Browne lectured once a week during the first half-year on the dramas of Browning. During the second half-year, Professor Bright occupied the same hour with a study of the non-dramatic poetry of Browning of the period introduced by *Pocciarotto*. Lectures on the mind and art of the poet were accompanied by a reading and interpretation of poems. The poet’s self-criticism, his attitude towards his critics, and the avowed purposes of his work were especially singled out for closer scrutiny.

Professor Browne also lectured, once a week throughout the year, on the Caroline Poets and on the Principles of Literary Criticism.

The Journal Club of the English Seminary was conducted by Professor Bright. Sessions of two hours each were held on alternate Fridays throughout the year for reports of the current philological periodicals, reviews of new books, and the presentation and discussion of papers representing such independent investigations as were less directly connected with the concurrent work of the Seminary.

2. College Courses.

The English major class in Anglo-Saxon, using Bright’s *Anglo-Saxon Reader* as text-book, was met twice a week, by Professor Bright in the first half-year, and by Mr. A. A. Kern in the second half-year.

Professor Browne met the English major class twice a week. One hour weekly was given to (a) the study of the Elizabethan Poets, especially Shakespeare, and to (b) the literature of the first half of the nineteenth century; and one hour weekly to readings from the Scottish Poets of the fourteenth, fifteenth, and sixteenth centuries, with accompanying lectures.

The English minor class was conducted by Professor Browne. The work consisted of readings of Early and Middle English texts (two hours a week) with Morris and Skeat’s *Specimens* as the text-book, and general English literature (two hours a week) with Arnold’s *Manual of English Literature*.

A class in Rhetoric and English Composition met three times a week throughout the year. Until the tenth of November this class was taught by Professor Greene. The class was then divided, upon the basis of rank,
into two sections; the second section was taught by Mr. John C. French. Theory was imparted by means of text-book (A. S. Hill's Principles of Rhetoric), lectures, and discussions; practice was obtained by the writing of from fifty to sixty short papers, of which a few from each set were read and criticised in the class-room, and by the writing of five essays, three of which (one in each term) were read and criticised privately with the writers. The weekly practice in writing was combined with an examination of the usage of standard writers. Each member of Section A made a careful study of the style of one prose author (usually of a nineteenth century author), and presented the results of his study in a series of short papers. The class-work included a study of representative passages of description (Baldwin's Specimens of Prose Description). The members of Section B made a careful study of specimens of standard prose, as contained in Brewster's Studies in Structure and Style and in Lewis's Specimens of the Forms of Discourse, and presented a series of short papers containing the results of their study. The members of both sections read the poems contained in Palgrave's Golden Treasury of Songs and Lyrics, and wrote a series of short papers upon topics suggested by their reading.

Mr. Charles A. Myers conducted, once a week, a class in English Composition, intended primarily to supply additional instruction for students in special need of further training. In addition to those who were required to follow the course, a number of students voluntarily improved the opportunity thus afforded them.

A class in English Literature met Professor Greene three times a week, throughout the year. This class made a general survey of English Literature from the beginning to the first quarter of the seventeenth century. A detailed study was made of the works of Chaucer, Spenser, and Shakespeare. Of the writings of these poets, a considerable amount was critically studied in the class-room; and more was read by the members of the class in their private reading. In addition to the regular class-room exercises, five readings from the poems of Chaucer and twelve lectures upon the dramas of Shakespeare were given for the benefit of members of the class who desired to attend them.

An elective course in English Literature was given by Professor Greene, two hours a week, throughout the year. During the first half-year the study was centered upon the works of Dryden, Steele, Addison, Swift, and Pope; during the second half-year, upon the works of Wordsworth, Coleridge, Keats, Shelley, and Byron. In connection with the weekly lectures and discussions the members of the class did a large amount of private reading. Each student prepared and read before the class, during each half-year, a paper upon one of the principal writers studied.

3. Public Lectures on Literature.

Sidney Lee, Litt. D., gave a course of lectures on English Literature. The general theme, "Foreign Influences on Elizabethan Literature,"
was discussed in four lectures: (1) "The Comparative Study of Elizabethan Literature;" (2) "The Italian Influences;" (3) "The French Influences;" (4) "Foreign Influences on Shakespeare."

JAMES W. BRIGHT,
Professor of English Philology.

WILLIAM HAN D BROWNE,
Professor of English Literature.

HERBERT EVELE TH GREENE,
Collegiate Professor of English.

German

The German Seminary, under the direction of Professor Wood, met three times weekly, through the year. During the first half-year, the History of German Literature in the half-century between the years 1680 and 1730 was studied.

After a review of the Second Silesian literary movement, the critical reforms at the end of the Seventeenth Century were considered in detail. Among the works of the earlier period, Weise's dramas received the largest share of attention, while the latter part of the course was devoted to the reading of Brockes' *Irdisches Vergnügen in Gott*. The attempt was made to show the relation of later German authors to Brockes' poetry of Nature, and in particular his influence upon Goethe was made the subject of special and prolonged study. During the second half-year the poems of Walther von der Vogelweide were read. The recent contributions of Schönbach, Burdach and others to the historical side of this study led to a very full consideration of Walther's *sprüche*, and an attempt was made to add to the biographical material for Walther by further use of the arguments advanced by the director of the Seminary in the Amer. Jour. of Phil., Vol. XI. The *lieder* were read also as a preparation for the course in Minnesangs *Frühling*, to be given in the year 1903-4.

The Germanic Society, which is composed of the Director of the Seminary and the instructors and graduate students in German, held eleven meetings during the year, in an afternoon session. Besides reviews and reports, the following papers were read, some of them presenting completed investigations, and others giving preliminary results of studies still in progress: adverbial phrases in Otfried as a test for chronology; the use of parenthetical expressions in Otfried, as rime expedients and as a criterion of chronology; two periods of German *Kulturgeschichte* as illustrated by German literature; the relation of the early Mss. and the first print of the pre-Lutheran Bible; the part of the *Dichter* in the prelude of Goethe's *Faust*; notes on *Hermann und Dorothea*; the stylistic character of Grimm's *Kinder und Hausmärchen*; the second and seventh
editions of the Kinder und Hausmärchen; American influence on German literature; Heine's Reisebilder and Achim von Armin's Hollin's Liebeln.

Professor Wood gave, in addition, the following graduate courses:
1. Classical and Romantic Elements in Schiller's Dramas. Twice weekly, first half-year. The Braut von Messina, as presenting both classical and romantic elements, and the Jungfrau von Orleans, a romantic subject introducing the antique conception of fate, gave the point of view for the course. Schiller's leanings in both directions were illustrated from the construction of his principal dramas and of his more important dramatic fragments. Goethe's dramas furnished constant material for comparison, and the theoretical writings of both authors were examined for their final conception of the terms "classical" and "romantic," as applying to the German drama.
2. The Swabian Poets. Twice weekly, second half-year. The period from Uhland to Edward Mörike was considered in its chief representatives, and particular attention was paid to the relation of Heine to the Swabians. Heine's Reisebilder and his Nordseebilder were compared in detail with Justinus Kerner's Reiseeschatten, and the extent of Heine's obligations to his slighted romantic predecessor was determined.
3. Gothic and the Elements of Comparative German Grammar. Twice weekly, through the year. Braune's Gotische Grammatik was studied, after which parts of Ulfilas were interpreted, with Bernhardt's larger edition and that of Heyne-Wrede as a basis. Kluge's Vorgeschichte der altgermanischen Dialekte was read in part, and was accompanied by practical exercises designed to illustrate the principles of sound-change and word-formation for the several Teutonic languages.

In the undergraduate major course, Professor Wood conducted a class in Goethe's Faust and in Schiller's Wallenstein, twice weekly through the year. The third part of the trilogy, Wallenstein's Tod, was assigned as private reading. In the minor course A, he conducted weekly exercises in German prose composition.

Associate Professor Vos conducted a class in Middle High German twice weekly, during the first half-year. After a study of Phonology, Inflection, and Syntax in Paul's Mittelhochdeutsche Grammatik, selections were read from Bachmann's Mittelhochdeutsches Lesebuch. In the study of the grammar special attention was paid to the relation of Middle High German to Modern German, and an attempt was made to formulate the main tendencies at work in the simplification and re-grouping of noun and verb-classes.

He also gave a course, twice weekly, during the first half-year, in Heinrich von Veldeke and the Beginnings of the Middle High German Court Epic. Selected portions of the Eneide were read in class, the discussion centering around such questions as Heinrich's relation to the Roman d'Énées, the development of his language and style, and the existence of a Middle High German literary language.
During the second half-year, twice weekly, he gave a course in Old High German. For the study of the grammar use was made of Braune's *Althochdeutsche Grammatik*, special attention being paid to forms that mark the transition from Old High German to Middle High German. As texts the alliterative poems were read in Braune's *Althochdeutsches Lesebuch*, with frequent reference to the text and notes of Müllerhoff and Scherer's *Denkmäler*.

The following undergraduate courses were conducted by Associate Professor Vos:

History of German Literature (Major Course), with especial reference to the Classical Period. A printed outline was furnished the class and illustrative extracts were read from Viehoff's *Handbuch der deutschen Nationalliteratur*.

In the minor course A, the following works were read in class: Baumbach, *Sommermärchen*; Schiller, *Maria Stuart*; Goethe, *Hermann und Dorothea*. Sudermann's *Frau Sorge* was assigned as private reading.

Dr. T. S. Baker, Professor in the Jacob Tone Institute, gave a course of lectures, weekly, through the year, on the history of the German Novel in the eighteenth century.

Dr. William Kurrelmeier gave undergraduate and special courses, as follows:


Mr. Julius Hofmann conducted, in the major course, weekly exercises in prose composition. He also met a class of graduate students, twice weekly, for oral exercises in German. Special attention was paid to synonyms and idioms, and to the attaining of a correct German pronunciation and accent. The subjects for conversation were drawn from German daily life and, occasionally, from German *Volkslieder*.

*Henry Wood,*

*Professor of German.*
Romance Languages

Romance Languages

I. Graduate Courses:

Professor Elliott conducted advanced courses as follows:

Romance Seminary.  
Two hours a week, through the year.

The work centered here on the Fables of Marie de France, the object of the course being to acquire a working knowledge of the fable literature of antiquity and the middle ages; to become acquainted with the characteristics of the Norman and Anglo-Norman dialects in which some of the more important manuscripts are written; to present the fundamental principles of text-criticism and text-constitution, for which three fables were examined. A clear view of the morphology and phonetics of language was obtained as contrasted with those of the Isle-de-France, likewise of the Old French construction as compared with that of the modern French. In addition to this, special attention was paid to the manuscript sources of medieval fable literature, more particularly those connected with the Romulus Treverensis, a Latin collection closely related to the text of Marie de France.

Popular Latin.  
Weekly.

The object here was to give the student an introduction to the phonetics and morphology of Folk- and Low-Latin as the common basis for a scientific study of the Romance idioms. Meyer-Lübke's treatment of the subject in Grüber's Grundriss der romanischen Philologie was taken as the starting-point for this work, in connection with which lectures were given, contrasting the popular forms with the historic development of the classical forms.

Romance Club.  
Weekly.

The object of this organization, to which all members of the Romance Language department belong, is to foster a common interest in everything that concerns the study of the Romance idioms. Reviews of important journal articles, papers on original investigations, discussions of literary and scientific subjects, reports of correspondence of a professional nature, represent the chief exercises that claim the attention of the club.

French Dialects.  
Weekly.

The dialects especially considered were the Lorraine, Burgundian, Champagne, the Southwestern and Northwestern groups. The method of work was, to a great extent, practical, and had in view a sufficient acquaintance with dialect forms to enable the student to discriminate Old-French texts belonging to these different idioms. To this end the leading characteristics of the old and the modern dialects were presented in a few lectures; then, through the use of early and later texts, the student was required to recognize and name the dialect features as they occur in the respective texts.
Courses of Instruction, 1902–1903

Lectures on Dante. Weekly.

The object of this course was to give the student a survey of the Dante science of to-day. In a few introductory lectures he was made acquainted with the leading philosophical and literary tendencies of Dante’s time, the Inferno and Purgatorio doctrines before the author’s epoch. The Inferno, Purgatorio and Paradiso were analyzed and presented in detail, both with reference to the previously existing ideas of punishment and recompense and to those peculiar to Dante.

Lais of Marie de France. Weekly.

The work was concentrated on the Bisclavret, which was carefully examined, from the historical-literary point of view, in reference to other works and traditions on lycanthropy. About one-half of this lai was also exhaustively studied in reference to old French syntax as compared with that of the Fables of Marie de France and with the Modern French sentence construction.

A course of twenty lectures on the Carlovingian Cycle of the medieval French epic was given by Professor F. M. Warren, in December and January. The close connection between the ideas of feudalism and the spirit of this section of medieval literature was shown, and the historical and traditional origin of the various poems discussed. Attention was called to the gradual development of their matter by inward expansion or outward addition, and their influence on the later literatures of France and Europe, particularly of Italy.

Professor Warren also conducted a series of six lectures on the Modern French Drama. The thought and literary form of the theater of the seventeenth century were made the starting point. The changes made by Voltaire and minor writers were traced, together with the attempt of La Chausée and Diderot to found serious comedy in the eighteenth century and the growing influence of Shakespeare on the French public. The progress in dramatic art made by the nineteenth century, from the romantic tragedy of Hugo and Dumas and through the revival of the classical construction by Scribe, Augier, and Dumas fils, was studied in detail. The last lecture considered the efforts to put naturalism on the stage, and concluded with a presentation of the theories and plays of contemporary dramatists.

Associate Professor Marden conducted the following courses:

Spanish Seminary. Weekly.

The work consisted of a study of the Libre d’Apolonio based on a copy of the Escorial manuscript. The students investigated the date, sources, and dialect of this old Spanish poem, in addition to various problems connected with its syntax and metre. The results of these investigations were presented in the form of reports. Finally the students made practical application of the results obtained, by constructing a critical text for eighty stanzas of this poem.
Spanish Historical Grammar. Twice weekly.
The students read Gorra's Lingua e Letteratura Spagnuola delle Origini, Balist's Die Spanische Sprache, and Meyer-Lübke's Grammaire des Langues Romanes, in connection with a course of lectures on Spanish phonology, morphology, and syntax. Every fourth meeting was a quiz, during which the students applied to various early texts the laws deduced in the lectures.

Old Spanish Readings. Weekly.
The aim of this course was to give the students a reading knowledge of Spanish of the twelfth, thirteenth and fourteenth centuries. In addition to selections from Gorra's Chrestomathy, the class read Morel-Fatio's Textes castillans inédites du XIIe siècle, El Misterio de los Reyes Magos, Romance de Lope de Moros, Poema de Fernan Gonzales, and about five hundred stanzas of Juan Ruiz' Cantares.

Lectures on the early Spanish Drama. Weekly.
The first two lectures were devoted to a survey of the bibliography of the Spanish drama. The general and special treatises on the drama were exhibited in the lecture-room, and the characteristic features of each book or collection were emphasized. The early church drama was discussed in detail, and it was shown how the blending of the popular element with the church service produced a purely secular drama. The lectures then traced the history of the égloga under Encina, Vicente, etc., and the later development of a popular dramatic representation under Lope de Rueda and his followers. A special feature of the course was a study of the Italian influence, as marked by the residence of individual Spanish dramatists in Italy, the Spanish Court at Naples, and the relations of the Spanish autores with the Italian dramatic troupes.

Associate Professor Armstrong conducted the following courses:
French Phonology and Morphology. Three hours weekly.
Old French sounds and inflexions were studied with reference to their historical connection with Folk-Latin and with modern French. Only the language of Central France was considered in detail. A portion of time was employed in the application of material and methods embodied in the lectures to the text of La Vie de St. Alexis and of the Roland.

French Syntax. Two hours weekly.
In continuation of the course of the preceding year, which had included the discussion of substantive and adjective, the lectures were devoted to the French pronoun, which was studied from the historical and comparative standpoint.

A brief view of general principles and of existing phonetic schools was followed by a description of the organs of speech and a detailed examination of the mode of formation of French sounds. Practical exercises were given, based on texts in phonetic transcription.
Courses of Instruction, 1902–1903

Readings in Old-French Literature. Weekly.

It was the aim of this course to furnish an introduction to the subject and to equip students for reading Old-French texts with some facility and accuracy. The texts read included La Vie de St. Alexis, Le Jeu de Robin et Marion, Yvain, and portions of La Chanson de Roland.

Associate Professor Ogden conducted the following courses:

Romance Seminary: Literature. Two hours fortnightly.

The subject chosen for study was the French drama of the XVIII century. The work consisted in special study pursued by the members of the Seminary in connection with topics selected individually, as assigned. The dramatists of the decline of the French stage, from the close of the XVII century, were treated successively, and original matter was also discussed. The aim was to gain a knowledge of material and method of preparation, and to become familiar with the dramatic capital of the period in its various relations. Besides the work of the authors themselves theses of interest were applied in reference.

Victor Hugo as Lyric Poet. Weekly.

In this course of lectures it was not so much the desire to call attention to the specific work of Victor Hugo as poet as to accent the lyric power and quality of the genius which informed its production. Stress was laid on the gradual growth of the artist and the expression of the soul in song. Outside reading was required, and the attempt was made to impress on the mind of the student that there was a spiritual perception and response far subtler and more satisfying than the intellectual apprehension of words alone.


The aim of these lectures was to introduce the student to one of the most brilliant and varied forms of French literature, and to stimulate an active interest in pursuing the subject individually. After a rapid survey of the fiction preceding the Revolution, Rousseau and Chateaubriand were noted for their formative influence, and thence the line of development was traced through Hugo to the growth of the different schools subsequent to the Romantic movement. Thence the genre was followed out in its ramifications to the present day and the work of de Regnier, France, Bourget, Rod, Loti. The student was held responsible for parallel reading of significant works.

Provençal. Weekly.

The text-book used was Appel’s Provenzalische Chrestomathie. The work consisted in a study of subject-matter and language forms, in order to give the student an appreciation of the rich Provençal literature in the twelfth and thirteenth centuries. The artificial and studied composition of much of the subject-matter furnish admirable training and stimulus, producing most satisfactory results.
Dr. Keidel conducted the following courses:

Romance Methodology. Weekly, first half-year.

The general principles of cataloguing, proof-reading, original investigation, library research, and bibliography were explained and fully illustrated by numerous concrete cases of actual personal experience, while special stress was laid on the methods to be employed in the preparation of a dissertation and the writing of book reviews.

Romance Scholars. Weekly, second half-year.

A short and succinct account was given of the various groups of Romance scholars in Europe and America, and brief biographical sketches of the most prominent men were added, together with an appreciation of their most important work as investigators and teachers.

Dr. Shaw conducted the following courses:

Italian Seminary. Weekly.

The subject of the seminary work was the study of the earliest monuments of Italian literature with the object of gathering together all the information possible regarding them, the work thus consisting of literary, linguistic, and historical criticism. The year was taken up in treating the Carta Capuana and the Carta di Terno.

The Present Authors of Novels of the School of Manzoni. Weekly.

After a brief study of Manzoni with the object of defining the philosophical, artistic theories of Manzoni, and an analysis of the Promessi Sposi, the present followers of Manzoni were treated critically, comparison of each with Manzoni and with each other representing the main line of criticism. De Marchi, Visconti-Venosta, Fogazzaro, De Amicis, and others.

Dr. Brush conducted the following courses:


The subjects in this course were selected with reference to the annual lectures of Professor F. M. Warren on Old French Literature. The class read the following texts: Le Voyage de Charlemagne, Élie de Saint-Gilles, Aiol, and Miraugis de Fordesquez.


The object of this course, given this year for the first time, is to insure in the student a first-hand knowledge of the masterpieces of French literature. The period studied extended over the sixteenth and part of the seventeenth centuries and copious extracts were read from the works of the following authors: Villon, Marot, Rabelais, Calvin, Ronsard, Du Bellay, Montaigne, Malherbe, Boileau, Corneille, Racine, and Molière.

II. Undergraduate Courses:

Dr. Brush conducted the following courses:

French: Major Course. Four hours weekly.

The work in this course consisted of translation of French into English, of exercises in grammar and composition, and of lectures in French
on the history of French literature. The following works were read: De Vigny: Ang-Mars; Balzac: Scènes de la Comédie Humaine; Hugo: Notre Dame de Paris; Canfield’s French Lyrics; Corneille: Cénab; Racine: Iphigénie; Molière: Les Femmes Savantes, Le Misanthrope; Marivaux: Le Jeu de l’Amour et du Hasard; Le Legs; Beaumarchais: Le Barbier de Séville; Lynch: French Life in Town and Country. For the work in composition Fraser and Squair’s French Grammar and Grandgent’s French Composition were used.

French: Minor A. Four hours weekly.
This is a second-year course in French literature and composition designed to enable the student to translate smoothly from French into English and to write simple French prose. The texts used in class were: Dumas: Les Trois Mousquetaires; Mérimée: Colomba; Daudet: Contes, La, Belle Nivernaise; Pailleron: Le Monde où l’on s’ennuie; Bowen’s Modern French Lyrics; Corneille: Le Cid; Racine: Andromaque; Molière: Les Précieuses Ridicules, L’Aventure; Hugo: Hernani, Trifonc de Cromwell.
Short talks were given on the history of French Literature, and there was weekly practice in composition based on the exercises in Fraser and Squair’s French Grammar, and on Grandgent’s Exercises based on La Pipe de Jean Bart.

French: Elementary Course. Three hours weekly.
This is a beginners’ course offered to candidates for matriculation. The work of the year consisted in the study of Fraser and Squair’s French Grammar, Part I, and Reader; Verne: Vingt Mille Lieues sous les Mars; Labiche and Martin: Moi; Coppée: On rend l’Argent.

Associate Professor Ogden conducted the following course:
French: Minor B. Four hours weekly.
The object of this course is to give the student a reading knowledge of French as quickly as possible, consistent with thoroughness, and is designed to satisfy the need of post-graduate students insufficiently prepared for application for the degree of Doctor of Philosophy, as well as of undergraduates who have entered the university without French. The first part of the year was devoted to a rapid study of the grammatical foundation of the language, and the remainder of the work consisted in the rapid reading of texts. In addition to this, idiomatic expressions were studied and applied in exercises. The following books were read during the year: Dumas: L’Evasion du Duc de Beaufort; Labiche and Martin: La Poudre aux yeux; La Brèche: Mon Oncle et mon Curé; Augier and Sandeau: Le Gendre de M. Poirier; Lafayette: La Princesse de Clèves.

Associate Professor Armstrong conducted the following course:
French: Elective Course. Twice weekly.
In this class, open to students who have completed a minor French course or its equivalent, modern French texts are rapidly read, and some work in composition is done weekly. The following texts were read:
Romance Languages

Le Sage, Gil Blas; George Sand, La Mare au Diable; Daudet, Le Petit Chose; Danyville, Gringoire; Melihac et Halévy, L'Été de St. Martin; Arène, La Chèvre d'Or; Fabre, L'Abbé Tigrane.

Associate Professor Marden conducted the following courses:

Spanish Minor. *Four hours weekly.*

After a few lessons in Ramsey's Spanish Grammar, reading was begun in Matzke's Spanish Reader. The class then read Alarcon, El Capitán Veneno; Pérez Galdós, Marianela; and portions of Cervantes, Don Quijote. Exercises in grammar and prose composition were continued throughout the first term. During the last term one hour a week was devoted to the history of Spanish literature, the class using Clarke's *Handbook.*

Spanish Elective. *Twice weekly.*

Edgren's Spanish Grammar was used for the rudiments of grammar and for work in composition. The texts read were Loiseaux's Spanish Reader; Tamayo y Baus, Un drama nuevo; Palacio Valdés, José.

Mr. Gould conducted the following course:

Spanish Conversation. *Weekly, second half-year.*

This class was composed of graduate and undergraduate students who had already acquired a reading knowledge of modern Spanish.

Dr. Shaw conducted the following courses:

Italian: Minor Course. *Four hours weekly.*

The translation of texts occupied most of the time, exercises in Italian composition weekly; the grammar was studied with the reading, during all but the last term. The students read a history of Italian Literature privately, and brief lectures on the literature were given from time to time. The following text-books were used: Grandgent's *Italian Grammar and Composition*; Bowen's *Italian Reader*; Garnett's *Italian Literature*; De Amicis, *La Vita Militare*; Fogazarro, *Daniele Cortis*; Goldoni, *La Locandiera*; Ariosto, *Orlando Furioso* (selections); Dante, *Inferno* (selections).

Italian: Elective. *Twice weekly.*

The work consisted of the study of the grammar, and the reading of texts. The following text-books were used: Grandgent's *Italian Grammar*; Bowen's *Italian Reader*; Serao, *Trenta Per Cento*; Goldoni, *Il Vero Amico*; Boccaccio, *Decameron* (selections); Dante, *Inferno* (selections).

Mr. Oussani conducted the following course:

Italian Conversation. *Weekly.*

This course was intended both for beginners and more advanced students. The time was divided between general conversation and the reading of a text, the teacher criticising the pronunciation.

A. M. Elliott,
Professor of Romance Languages.
History and Political Science

The publications in these fields of research have continued as heretofore. The Studies in Historical and Political Science completed the Twentieth Series. The monographs in this volume were devoted to colonial and economic history, the titles including: I, Western Maryland in the Revolution, by B. C. Steiner; II-III, State Banks since the National Bank Act, by G. E. Barnett; IV, Early History of Internal Improvement in Alabama, by W. E. Martin; V-VI, Trust Companies in the United States, by G. Cator; VII-VIII, The Maryland Constitution of 1851, by J. W. Harry; IX-X, Political Activities of Philip Freneau, by S. E. Forman; XI-XII, Continental Opinion regarding a Proposed Middle European Tariff Union, by G. M. Fisk.

The Twenty-first Series is in progress and the following numbers have been published: I, History of Internal Improvements in North Carolina, by C. C. Weaver; II-III, The Wabash Trade Route in the Development of the Old Northwest, by E. J. Benton; IV, History of Japanese Paper Currency, by M. Takaki; VIII, Daniel Dunlay the Elder: A Study in Colonial Politics, by St. G. L. Sioussat.

Extra Volume XXV appeared during the year under the title Finances and Administration of Providence, by Howard Kemble Stokes, Ph. D. This is a very careful study of the institutional and financial history of one of the earliest municipalities of New England and should be a work of permanent value.

The Historical and Political Science Association brought together the graduate students and instructors in the departments of History, Politics, and Political Economy. Selections from the best original work were presented and current literature in these lines of study was subjected to review and criticism. The proceedings from October 17 to March 27 are published in the University Circulars for December and April. Among the original papers presented were the following: Legal Aspects of the Coal Strike, by W. W. Willoughby; Municipal Problems in Medieval Switzerland, by J. M. Vincent; Introduction to Reconstruction in South Carolina, by P. Hollis; the Eight-Hour Labor Law, by Theodore Marburg; Two Eighteenth Century Missionary Projects (Berkeley and Bray), by B. C. Steiner; the Official Publications of Foreign Governments, by P. DeW. Phair, of the Library of Congress; Commercial Development of Japan since 1869, by Y. Hattori; Reconstruction in Virginia, by H. J. Eckernrode; the Residual Claimant Theory of Distribution, by J. H. Hollander; the Aim of Political Philosophy, by W. W. Willoughby; the Entrepreneur and the Corporation, by G. E. Barnett; Suffrage in Porto Rico, by P. L. Kaye; Economic Investigation in the United States, by J. H. Hollander; the Correspondence of James McHenry, by B. C. Steiner; the Political Theories of Alexander Hamilton, by R. J. Mulford.
Dr. James Schouler gave his usual course of public lectures on American History. The subject was in continuation of the series of last year on the Life of the People during the American Revolution. The special topics considered were: Dress and Diet; Recreations and Amusements; Colonial Literature; Provincial Distinctions.

Historical students were able to avail themselves of the lectures on colonial history provided by the Maryland Society of the Colonial Dames of America. These were given in McCoy Hall by President Lyon G. Tyler, of the College of William and Mary, the topics touching the conditions in the two colonies of Maryland and Virginia.

Professor Andrew C. McLaughlin gave two public lectures on the political and constitutional aspects of the American Revolution.

Associate Professor J. M. Vincent has, in addition to administrative and editorial duties, conducted the following courses for graduate students:

1. The Old Régime in France. Two hours weekly, first half-year.
2. Central Europe in Seventeenth Century. Two hours weekly, first half-year.
3. The Puritan Revolution in England. Two hours weekly, second half-year.
4. History of Prussia. Two hours weekly, second half-year.

Taken together these courses offered a systematic study of early modern European history, the aim having been to show the relationship between the great movements of the seventeenth and eighteenth centuries in England and on the continent.

5. The Historical Seminary, one hour weekly through the year, took for its work special subjects in the history of the seventeenth century. During the first half-year the most important topics related to the diplomatic history of the Treaty of Wesphalia. In the second half-year, topics in the history of England during the Civil War and Commonwealth were assigned to advanced students for investigation. The reports were subjected to mutual criticism as to method of research and results reached.

Dr. J. C. Ballagh, Associate in History, has given particular attention to the work of the advanced students in American history and has conducted the following courses:

A. For graduates:

American History, three hours weekly throughout the year. The lecture topics were so arranged as to continue and supplement the work of the previous year. They were:

1. Causes of the American Revolution, two hours weekly, first half-year. The accessibility of a large body of previously unused manuscript material on this period made it possible to throw additional light upon the subject, particularly with regard to local conditions.
2. The Formation and Sources of the Federal Constitution, two hours weekly, second half-year. Constitutional development was traced in its
stages from early plans of colonial union to the adoption of the constitution of the United States. The rise of independent local institutions not treated by authorities was undertaken as seminary work by members of the class and the results of their researches were presented in reports. Courses (1) and (2) together covered intensively the period 1763–89.

3. American Land Systems, one hour weekly throughout the year. The lectures of the first half-year traced the origin, expansion, and social effects of colonial and early state land systems; those of the second half-year, the creation of the public domain and the public land policy of the United States.

*Historical Examinations*, one hour weekly throughout the year. The course consisted of informal lectures, oral examinations, and a written examination for candidates for the degree of Doctor of Philosophy and advanced students in that field of history in which their previous instruction has been inadequate. In the past year, Greece and Rome in the field of ancient history were studied, with constant use of classical authorities, in the same way that phases of modern political history were considered in the previous year.

Progress has been made during the year with the cooperation of students in the preparation of a descriptive bibliography of manuscript sources and research work in southern history, and Professor George Petrie, of the Alabama Polytechnic Institute, exhibited his collection of the manuscripts of William L. Yancey to the students and discussed their use.

B. For undergraduates:

1. Civilization and Politics in the Far East, two hours weekly throughout the year. The lectures were limited to the most important features of the civilization and foreign policy successively of China, Japan, and India. The concentration of the class-reading and special written reports upon a single country during each term added to the efficiency of the work.

2. Classical History, four hours weekly throughout the year. The political and constitutional history of Greece and Rome were studied through the translated texts of Herodotus, Thucydides, Plutarch, Aristotle, and Suetonius and the best modern authorities. Frequent written reports were required.

Dr. Bernard C. Steiner has acted as one of the advisers of graduate students and has conducted:

1. A class in American Constitutional and Political History, two hours weekly through the year, with undergraduates. The colonial origin of the United States and the development of the constitution were reviewed down to the present time. Reports upon assigned topics were prepared by the students and careful attention was called to the sources of American history. This course is intended to bring to the attention of the student not only the history of the United States, but the principles on which its government is based and those elements of civic knowledge which every good citizen ought to know.
2. **Historical Politics**, two hours weekly through the year, with undergraduates who are not members of the historical group, and who take this course as a part of "History-Economics." The history of government and political principles was traced from primitive times to the present day with a view to showing the basis upon which modern governments are established. The second half-year included a course in modern history. Special topics were assigned for the study of the details of modern governments, particularly those of the United States.

Dr. Guy Carleton Lee has conducted:

1. A course in the *Political and Constitutional History of England*, two hours weekly through the year. Text-books of the narrative and sources of English were supplemented by lectures. Frequent written examinations were used to test the private reading of the students.

2. *Introduction to the Study of Law*, particularly designed for undergraduates who intend to pursue the study of law.

Dr. Lee, with the assistance of Mr. J. C. French and Mr. J. D. Williams, has conducted the instruction in *Public Speaking*. This consisted of (1) a course in parliamentary practice and debate, one hour bi-weekly, alternating with a conference on the same subjects. This has included the third-year undergraduates, who are organized into what is known as the Senate. (2) A course in parliamentary law and debate, alternating with a conference on the same subject, followed by the undergraduates of the second year, who are organized into what is known as the House of Representatives. (3) A course in the elements of public speaking, one hour weekly. This has been attended chiefly by undergraduates of the first year. (4) The elements of parliamentary law divided into three courses of one hour weekly each, followed by undergraduates.

Mr. E. J. Benton, Fellow in History, has conducted part of the "History Major" course, two hours weekly through the year. This consists of lectures, text-book work, and reports upon specially assigned topics in medieval and modern history.

**Political Science**

Associate Professor Willoughby has had charge of the work in Political Science, and has conducted the following courses:

2. **The Historical and Political Science Association**, fortnightly throughout the year, in cooperation with the departments of History and Economics.

3. **Ancient and Medieval Political Philosophy**, two hours weekly throughout the year. The political ideas and ideals of these times were analyzed and criticised, a special effort being made to show the extent to which these theories were the outcome of the political conditions and general characteristics of the times in which they were formulated.

4. **Introduction to Public Law**, three hours weekly, first half-year. The nature and classification of public laws were considered, and the different types of political life—centralized states, federal states, confederacies, personal and real unions, protectorates, administered states, guaranteed and neutralized states, colonies, spheres of interest, etc.—were examined, described, and illustrated by existing historical examples. In connection with this course the reading by the class of some standard treatise on International Law and a written examination thereupon were required.

5. **Foreign Constitutional Law**, three hours weekly, second half-year. The more difficult points in the systems of constitutional jurisprudence of Germany, France, Italy, Switzerland, Belgium, Austria-Hungary, Canada, and the Australian Commonwealth, were considered.

J. M. Vincent,
Associate Professor of History.

W. W. Willoughby,
Associate Professor of Political Science.

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**Political Economy**

During the past year Associate Professor Hollander met advanced students daily, in seminary organization, for formal instruction and for cooperative research in Political Economy. The work of the Economic Seminary centered in an investigation of the history, structure, and activities of labor organizations in the United States. Courses of lectures were also given on the history and theory of economic science and on the nature and influence of certain economic institutions. Dr. George E. Barnett, Instructor in Political Economy, assisted in the conduct of the work.

Associate Professor Hollander conducted the following courses:

1. **Economic Seminary**, fortnightly, in two-hour sessions, with membership limited to the most advanced students and designed to develop scientific spirit in economic study and sound method in economic research. The subjects of study were particular aspects of trade union organization and policy in the United States. The material resources necessary for such an inquiry having been made available by the gift of a citizen of
Baltimore a year before, a preliminary organization of the Seminary was effected before the close of the preceding academic year, certain preparatory reading was assigned to members for the summer recess, and a working plan was prepared and adopted so that the investigation might proceed promptly thereafter. Beginning in October, 1902, the primary activity of the Seminary was the collection of trade union documents and the preparation of a bibliography, as complete as possible, relating to the labor question in the United States. In addition thereto, individual members were at the outset assigned specific aspects of the general question for study and investigation. In each of such cases, the immediate environment was first studied; in the future, examination will be made of conditions in other typical communities until sufficient data for reasonably safe generalizations have been obtained. Such older members of the Seminary as were already engaged upon economic investigation in other fields were encouraged to continue their inquiries and to present the results for criticism as to method and content.


From time to time the Seminary had the benefit of addresses, from persons not formally connected therewith, upon topics more or less closely related to its investigations, as follows: "The Knights of Labor in Baltimore," by Mr. J. G. Schonfarber, Assistant Chief of the Maryland Bureau of Industrial Statistics, with a supplementary statement by Hon. Thomas A. Smith, Chief of the same Bureau; "The International Typographical Union," by Mr. W. B. Prescott, ex-President of the International Typographical Union; "Taxation in Colonial Maryland," by Dr. J. W. Harry. Certain other economic studies which may be regarded as the outgrowth of Seminary activity were presented before the Historical and Political Science Association and elsewhere as follows: "The Residual
Courses of Instruction, 1902–1903


During the academic year substantial progress was made in the collection of trade union documents. Relations were established with practically every national labor organization in the United States, and the Economic Seminary is now in regular receipt of all important trade union journals, proceedings of conventions, constitutions, and similar publications. By purchase and gift the collection was augmented by the addition of similar printed material of earlier years, and notably by the completion of files of representative trade union journals. Progress was also made in the preparation of a trial bibliography of trade union documents, to include not only such as are contained in this university, but also the valuable collections of such material in the Department of Labor in Washington and elsewhere. This bibliography, which it is hoped to issue in the course of the next academic year, will be very far from a complete list of American trade union documents, but it will make accessible to students of the labor movement in the United States a large amount of material to which at the present time there is no guide.

The same generous donor, whose gift of fifteen hundred dollars made it possible for the Economic Seminary to undertake a systematic investigation of the history, activity, and influence of labor organization in the United States, has given a further sum of fifteen hundred dollars to be available during the academic year 1903–1904 for the same purpose.

2. The Development of Economic Thought, two hours weekly through the year. A careful historical survey was made, during the first half-year, of the growth of economic theory before Adam Smith, with particular emphasis upon mercantilist writings. The current of English thought was followed in the main, but other writers and influences were examined wherever direct influence or analogy was discernible. Representative economic texts of the mercantilist and pre-Smithian periods were assigned to individual members of the class for investigation and report. In connection with the course, members of the class read Ashley’s Introduction to English Economic History and Theory and Cunningham’s Growth of English Industry and Commerce. During the second half-year, attention was given to the so-called “classical” political economy, centering in a critical study of the economic system of David Ricardo. In connection
Political Economy

thereof members of the class studied Ricardo's corn law and currency pamphlets, as well as his Principles of Political Economy and Taxation.

3. The Theory and Practice of Exchange, two hours weekly through the year. During the first half-year, critical study was made of the theory of money and credit, with particular reference to the monetary experience and practice of the United States. Emphasis was put upon the distinctive features of modern economic exchange and their modifying influence upon accepted monetary theories. In connection with this part of the course, members of the class read John Locke's classical writings on money and Francis A. Walker's Money. During the second half-year, attention was paid to the institutions of the modern money market. The bank rate, the movement of the precious metals, foreign exchange and the stock market were considered in relation to general economic organization.

Dr. George E. Barnett, Instructor in Political Economy, gave a course of lectures on Industrial Organization in the Nineteenth Century, one hour weekly through the year. During the first half-year, attention was given to labor problems; during the second half-year, a study of the economic aspects of industrial corporations was made.

Dr. Jeffrey R. Brackett, President of the Board of Supervisors of City Charities, delivered a series of ten lectures on Public Aid, Charity and Correction and on the Development of the English Poor Laws.

Associate Professor Hollander and Dr. Barnett conducted the following undergraduate courses:

1. Major Political Economy, four hours weekly through the year. This course was offered for the first time in 1902-1903, and consisted of a development of the two-hour course in advanced economics given in previous years. The course was divided into two two-hour sections extending through the year. In the first section, attention was given to recent economic theories, with Marshall's Principles of Economics as the textbook. In the second section, the recent developments in economic organization were studied, with Hobson's Evolution of Modern Capitalism and Henry C. Adams's Finance as the textbooks.

2. Minor Political Economy, four hours weekly through the year. This course was divided into two half-year sections. In the first half-year, the industrial development of England and the United States were studied. In the second half-year, systematic instruction was given in the elementary principles of economic science.

3. Elements of Economics, two hours weekly through the year. This course formed a part of "History-Economics," attendance upon which is required of all students not enrolled in Group VI, or who have not taken the minor course in Political Economy. Attention was given during the first half-year to the elements of political economy; during the second half-year, to practical economic institutions.

J. H. Hollander,
Associate Professor of Political Economy.
Courses of Instruction, 1902-1903

Philosophy

During the academic year 1902-1903, undergraduate courses in Logic, Psychology, Ethics, and the History of Philosophy, and a course for graduate students in the History of Philosophy, were conducted by Professor Griffin.

Each candidate for the degree of Bachelor of Arts is required to attend, during the last year of residence, courses in philosophy occupying five hours a week. The year is divided between the several subjects as follows: Deductive and Inductive Logic, October 1st until the Christmas recess; Psychology, January 1st to April 1st; Ethics, April 1st to June 1st; Outlines of the History of Philosophy, weekly. The instruction is adapted, as far as possible, to the needs of those to whom these studies are new; attention is, however, called to fundamental problems, and the work is intended to serve as an introduction to general philosophical study. Text-books are used in each subject, as affording definite material of acquisition, but informal lectures, discussions in the class, and passages from various authors assigned for reading, are largely relied upon in the presentation. Each member of the class is required to prepare two essays upon assigned subjects. Fifty-two students were in attendance.

Creighton's Introductory Logic was the text-book in Logic; the works of Mill, Jevons, Fowler, and other writers, were used for reference.

In Psychology, Baldwin's Elements of Psychology and Ladd's Outlines of Physiological Psychology were used as text-books, supplemented by many references to the works of other authors. A series of lectures on the anatomy and physiology of the nervous system was given, as a part of the course, by Dr. C. R. Bardeen, Associate Professor of Anatomy.

Ethics was treated chiefly with reference to its fundamental problems as a theoretical science, questions of applied ethics receiving, for lack of time, comparatively little attention. Such topics as the following were discussed: The psychological basis of ethics in the power of rational self-determination; the various conceptions of the moral ideal; the historic theories of morals: the authority of conscience; the leading rights and duties. Mackenzie's Manual of Ethics was made the basis of instruction.

One hour each week was used, until about March 1st, for a brief outline of the History of Philosophy, and the survey was brought down, in a summary way, to the modern period. During the latter part of the year, a weekly lecture was given for the benefit of those able to attend it as a voluntary exercise.

For some years past, it has been customary to invite, toward the end of the year, several gentlemen to address the class for the purpose of presenting considerations likely to be helpful to them in the choice of a vocation. Dr. J. Whitridge Williams, Mr. Clarence H. Forrest, and Ralph Robinson, Esq., kindly rendered this service.
A course in the History of Philosophy, for graduate students, was conducted during the year, consisting of the reading and discussion of representative works in modern philosophy from Descartes to Kant. The lectures presupposed the reading of the following works: Bacon's Novum Organum, book I and a part of book II; Descartes' Method, Meditations and Principles of Philosophy; Spinoza's Ethics; Leibnitz's Monadology; Locke's Essay on Human Understanding, books I, II, IV; Berkeley's Principles of Human Knowledge; Hume's Treatise on Human Nature, book I; a portion of Kant's Critique of Pure Reason. Ten students attended this course.

Edward H. Griffin,
Professor of the History of Philosophy.

Drawing

The work in this course has been so arranged as to give the student a practical knowledge of drawing, which can be applied later in illustrating the work in mathematics, biology, medicine, engineering, etc. Free-hand drawing is given in the first-half, followed by work designed to assist the student in his studies in special lines. All students in the mathematical-physical group have taken the work in mechanical drawing as a direct aid in the course in mathematics.

Students who are looking forward to a course in engineering, have taken the free-hand drawing during the first half-year, followed by mechanical drawing in the second half-year. This course is supplemented by more advanced work in the second and third years.

A class for special students showing ability was held during the entire year, in drawing from the antique. Students who intend following courses in engineering have worked during the entire year in advanced mechanical drawing.

S. Edwin Whiteman,
Instructor in Drawing.
# TABULAR STATEMENT OF COURSES OF INSTRUCTION, 1902-03

<table>
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<th>INSTRUCTORS</th>
<th>COURSES</th>
<th>No. of hours</th>
<th>No. of students per week</th>
<th>No. of students in half-year</th>
<th>No. of students in full year</th>
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<td>Cohen.</td>
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<td>Hulburt.</td>
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<td>Hulburt.</td>
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<td>Ames.</td>
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<td>Electricity and Magnetism.</td>
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<td>Wood, R. W.</td>
<td>Theory of Heat.</td>
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<td>Wood, R. W.</td>
<td>Theory of Optimal Instruments.</td>
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<td>Wood, R. W.</td>
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<td>Bliss.</td>
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<td>Experimental Physics for Medical Students.</td>
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<td>Renouf.</td>
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**GERMAN**

**Advanced Work.**

- Wood, Arabic: Elementary. 3 6 8
- Wood, German Seminary: XVIII Century Literature; Walther von der Vogelweide. 2 5 5
- Wood, Germanic Society. (Alternate weeks.) 2 5 5
- Wood, Schiller’s Dramas. 2 7 7
- Wood, Swabian School. 2 8 8
- Wood, Gothic. 2 8 8
- Vos, Old High German. 2 4 4
- Vos, Middle High German. 2 3 3
- Vos, Heinrich von Veldeke. 2 2 2
- Baker, XVIII Century Novel. (Lectures.) 1 2 2

**Major Course.**

- Wood, Goethe; Schiller. 2 13 13
- Wood, Prose Composition. 1 13 13
- Hofmann, History of German Literature. 1 13 13

**Minor Course: Class A.**

- Wood, Prose Composition. 1 30 28
- Vos, Selected Prose Readings. 3 30 28
- Vos, Schiller; Goethe. 8 28

**Minor Course: Class B.**

- Kurrelmeyer, Otis; Buchheim; Whitney; Keller; Gerstäcker; Wilhelmi. 3 22 16
- Kurrelmeyer, Prose Composition. 1 22 16

**Supplementary Courses.**

- Kurrelmeyer, Contemporary Literature: Readings. 2 6 7
- Kurrelmeyer, Scientific Readings. 2 16 13
- Kurrelmeyer, Historical Readings. 2 5 5
- Hofmann, Oral Exercises. 2 4 4

**ROMANCE LANGUAGES**

- Elliott, Old French Seminary: Marie de France. (Alt. weeks.) 2 7 8
- Elliott, Lais of Marie de France. 1 8 7
- Elliott, French Dialects. 1 5 4
- Elliott, Romance Club. 1 12 10
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<td>Shaw.</td>
<td>Italian: Elective Course.</td>
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<td>Oussanli.</td>
<td>Italian Conversation.</td>
<td>1</td>
<td>5</td>
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<tr>
<td>Warren, F. M.</td>
<td>Carlovingian Epic. (Twenty lectures in December and January.)</td>
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<tr>
<td>Warren, F. M.</td>
<td>Modern French Drama. (Six lectures in December and January.)</td>
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## ENGLISH

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<th>INSTRUCTORS</th>
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<th>No. of credits, 1st half-year</th>
<th>No. of credits, 2nd half-year</th>
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<tbody>
<tr>
<td>Bright.</td>
<td>English Seminary: Chaucer; Gedmon; Cynewulf; Shakespeare.</td>
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<td>Bright.</td>
<td>Historical English Grammar.</td>
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<td>21</td>
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<td>Bright.</td>
<td>Journal Meeting: (Alternate weeks.)</td>
<td>2</td>
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<td>Bright.</td>
<td>Anglo-Saxon: Major English.</td>
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<td>Bright.</td>
<td>Browning’s Poems.</td>
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<td>Browne.</td>
<td>Browning’s Dramas.</td>
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<td>Browne.</td>
<td>Caroline Poets.</td>
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<td>Browne.</td>
<td>Elizabethan Literature; Early Scottish Poets: Major Course.</td>
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<td>Browne.</td>
<td>English Literature: Early English: Minor Course.</td>
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<td>Greene.</td>
<td>English Literature: Undergraduate Elective.</td>
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<td>Greene.</td>
<td>English Literature: Second year.</td>
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<td>Greene.</td>
<td>Rhetoric and Composition.</td>
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## HISTORY AND POLITICAL SCIENCE

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<tr>
<td>Vincent.</td>
<td>Historical and Political Science Association, (Alternate weeks.)</td>
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<td>Vincent.</td>
<td>Historical Seminary.</td>
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<td>Vincent.</td>
<td>Central Europe.</td>
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<td>Vincent.</td>
<td>History of Prussia.</td>
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<tr>
<td>Vincent.</td>
<td>Old Regime in France.</td>
<td>2</td>
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## Tabular Statement of Courses

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<th>INSTRUCTORS</th>
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<tr>
<td>Vincent.</td>
<td>English Revolution.</td>
<td>2</td>
<td>12</td>
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<tr>
<td>Ballagh.</td>
<td>General History Examinations.</td>
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<td>Ballagh.</td>
<td>American History.</td>
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<td>Ballagh.</td>
<td>History of U. S. Public Domain.</td>
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<td>Ballagh.</td>
<td>Civilization and Politics in the East.</td>
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<td>Ballagh.</td>
<td>Ancient History: Minor Course.</td>
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<td>Benton.</td>
<td>European History.</td>
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<td>Willoughby, W.W.</td>
<td>History of Political Theories.</td>
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<tr>
<td>Willoughby, W.W.</td>
<td>Introduction to Public Law.</td>
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<td>17</td>
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<td>Willoughby, W.W.</td>
<td>Political Seminary. (Alternate weeks.)</td>
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<td>Steiner.</td>
<td>European History. (History-Economics.)</td>
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<td>Steiner.</td>
<td>American Constitutional Law and History.</td>
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<td>Lee.</td>
<td>English History and Constitutional Law.</td>
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<td>Lee.</td>
<td>Introduction to the Study of Law.</td>
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<tr>
<td>Schouler, J.</td>
<td>Life of the People during the Revolution. (Four lectures.)</td>
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<tr>
<td>Tyler, L. G.</td>
<td>Maryland Colonial History. (Three lectures.)</td>
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<tr>
<td>McLaughlin, A.C.</td>
<td>Principles and Politics of the American Revolution. (Two lectures.)</td>
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### POLITICAL ECONOMY

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<th>INSTRUCTORS</th>
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<tr>
<td>Hollander.</td>
<td>Economic Seminary. (Alternate weeks.)</td>
<td>2</td>
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<tr>
<td>Hollander.</td>
<td>Development of Economic Thought.</td>
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<td>14</td>
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<td>Hollander.</td>
<td>Theory and Practice of Exchange.</td>
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<td>15</td>
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<td>Hollander.</td>
<td>Institutions of the Money Market.</td>
<td>2</td>
<td>16</td>
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<td>Hollander.</td>
<td>Interpretation of Ricardo.</td>
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<td>Economics. (History-Economics.)</td>
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<td>Hollander.</td>
<td>Theory of Political Economy.</td>
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<td>Barnett.</td>
<td>Industrial Organization in XIX C.</td>
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<td>Barnett.</td>
<td>Economic History and Finance.</td>
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<td>Political Economy: Minor Course.</td>
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<td>Brackett, J. R.</td>
<td>Charitable Legislation and Custom.</td>
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### PHILOSOPHY

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<tr>
<td>Griffin.</td>
<td>History of Philosophy.</td>
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<td>Griffin.</td>
<td>Logic. (Until December 18.)</td>
<td>5</td>
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<td>Griffin.</td>
<td>Psychology. (January 6 to April 1.)</td>
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<td>Griffin.</td>
<td>Ethics. (After April 1.)</td>
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### DRAWING

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<td>Whiteman.</td>
<td>Freehand, Constructive, and Perspective Drawing.</td>
<td>6</td>
<td>55</td>
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<tr>
<td>Whiteman.</td>
<td>Special Work.</td>
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### FORENSICS AND ELOCUTION

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<td>Lee.</td>
<td>Parliamentary Practice. (Alternate weeks.)</td>
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<td>Lee.</td>
<td>Parliamentary Law.</td>
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<td>Lee.</td>
<td>Elements of Public Speaking.</td>
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<td>Lee.</td>
<td>Elements of Parliamentary Law.</td>
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Doors of Philosophy


Degrees Conferred


Doctors of Medicine

Lewis Clyde Bixler, of Easton, Pa., A. B., Lafayette College, 1899.
Clinton Ethelbert Brush, Jr., of South Orange, N. J., S. B., New York University, 1899.
Joseph Albert Chatard, of Baltimore, A. B., Loyola College, 1898.
George Edward Chinn, Jr., of Fayette, Mo., S. B., Central College, (Mo.), 1899.
Alfred Hull Clark, of Buffalo, N. Y., A. B., Cornell, 1899.
Harlan Dudley, of Monroeville, O., Ph. B., Oberlin College, 1897.
Dana Lee Eddy, of Leavenworth, Kan., A. B., Yale, 1898.
John Somerville Fischer, of Baltimore, A. B., Johns Hopkins, 1898.
Frederick Julius Gaenslen, of Milwaukee, Wis., S. B., University of Wisconsin, 1899.
Lewis McFarland Gaines, of Atlanta, Ga., A. B. and S. B., Hampden-Sidney College, 1898.
Francis Colquhoun Goldsborough, of Baltimore, S. B., Princeton, 1899.
Justin Frank Grant, of Stamford, Conn., Ph. B., Yale, 1898.
Louis Wardlaw Haskell, Jr., of Savannah, Ga., A. B., Johns Hopkins University, 1899.
Arthur Douglass Hirschfelder, of San Francisco, Cal., S. B., University of California, 1897.
Ross Hopkins, of Holton, Kan., A. B., Kansas State University, 1899.
Albert Keidel, of Catonsville, Md., A. B., Johns Hopkins, 1900.
Maurice Lazenby, of Baltimore, A. B., Johns Hopkins, 1900.
Arthur Solomon Loevenhart, of Lexington, Ky., S. B., Kentucky State College, 1898.
Edward Janney Sidwell Lupton, of Martinsburg, W. Va., S. B., Columbian University, 1899.
Leo Augustine Lynch, of Olyphant, Pa., A. B., Yale, 1899.
Robert Talbott Miller, Jr., of Covington, Ky., A. B., Amherst, 1899.
Mary Elizabeth Morse, of Baltimore, A. B., Woman’s College of Baltimore, 1899.
William Sanders Manning, of Washington, D. C., S. B., Columbian University, 1899.
Robert Talbott Miller, Jr., of Covington, Ky., A. B., Amherst, 1899.
Mary Elizabeth Morse, of Baltimore, A. B., Woman’s College of Baltimore, 1899.
William Sanders Manning, of Washington, D. C., S. B., Columbian University, 1899.
Robert Talbott Miller, Jr., of Covington, Ky., A. B., Amherst, 1899.
Mary Elizabeth Morse, of Baltimore, A. B., Woman’s College of Baltimore, 1899.
Willis Bean Moulton, of Portland, Me., A. B., Bowdoin, 1899.
Harry Benjamin Neagle, of Lubec, Me., A. B., Bowdoin, 1899.
Selden Irwin Rainforth, of Cincinnati, O., S. B., Cincinnati, 1899.
Theodore Foster Riggs, of Oahe, S. D., A. B., Beloit College, 1898.
Benjamin Franklin Riley, Jr., of Houston, Tex., S. B., University of Georgia, 1898.
George Canby Robinson, of Baltimore, A. B., Johns Hopkins, 1899.
Marvin Pierce Rucker, of Manchester, Va., A. M., Randolph-Macon College, 1899.
Ferdinand Schmitter, of Albany, N. Y., A. B., Union, 1899.
Oscar Theodore Schultz, of Mt. Vernon, Ind., A. B., Indiana, 1897.
Winford Henry Smith, of Westbrook, Me., A. B., Bowdoin, 1899.
Alexander Raymond Stevens, of Baltimore, A. B., Johns Hopkins, 1896.
Catherine Hutchinson Travis, of Hampton, Canada, A. B., McGill University, 1895.
Frank Hosford Watson, of Milwaukee, Wis., S. B., University of Wisconsin, 1899.
Charles Whittier Young, of Chicago, Ill., S. B., University of Illinois, 1897.

Bachelors of Arts

John Armstrong Addison, of Baltimore.
Louis Adelsdorf, of Baltimore.
William Wetherall Ammen, of Baltimore.
Harry Norman Baetjer, of Baltimore.
Arthur Newsom Baldauf, of Henderson, Ky.
Edgar Sutro Bamberger, of Baltimore.
William Sellman Bird, of Baltimore.
Frederick Conrad Blanck, of Baltimore.
Solomon Blum, of Baltimore.
James Wallace Bryan, of Baltimore.
Jenks Cameron, of Baltimore.
James Bayard Gregg Custis, Jr., of Washington, D. C.
Alphonse Raymond Vivian Dochez, of Hartford County, Md.
Theodore Wesley Glocker, of Baltimore.
John Alan Haughton, of Baltimore.
Franklin Hazlehurst, Jr., of Baltimore.
Moses Walton Hendry, of Washington, D. C.
John Coffey Hildt, of Baltimore.
Degrees Conferred

Eben Charles Hill, of Baltimore.
Richard Curzon Hoffman, Jr., of Baltimore.
Stuart Cator Hopper, of Baltimore.
Robert Sampson Lanier, of Tryon, N. C.
Charles Alexander Marshall, of Baltimore.
Benjamin Wilcher Meeks, of Baltimore.
McHardy Mower, of Newberry, S. C.
William Urwick Murkland, of Baltimore.
John Marbury Nelson, Jr., of Baltimore County, Md.
Robert James Nicholson, of Baltimore.
Robinson Cator Pagon, of Baltimore.
William Turner Parsons, of Baltimore.
Eugene Leo Pessagno, of Baltimore.
Harry Ward Plaggemeyer, of Baltimore.
Charles Woodward Riley, of Baltimore.

Charles Albert Robinson, Jr., of Baltimore.
Edgar Poe Sandrock, of Baltimore.
Joseph Tate Smith, Jr., of Baltimore.
Wilton Snowden, Jr., of Baltimore.
Philip Rayner Straus, of Baltimore.
George Drayton Strayer, of Baltimore.
Charles Henry Stubenrauch, of Baltimore.
Harry King Tootle, of St. Joseph, Mo.
George William Townsend, of Baltimore.
James de Lancey Ver Planck, of Fishkill, N. Y.
Harry Augustus Warner, of Baltimore.
Milton Charles Winternitz, of Baltimore.
Alexander Yearley, 3d, of Baltimore.

(46)
REPORT ON THE OFFICIAL STATE BUREAUS CONNECTED WITH THE JOHNS HOPKINS UNIVERSITY

TO THE PRESIDENT OF THE JOHNS HOPKINS UNIVERSITY:

I submit the following report regarding the work of the official State bureaus conducted under the auspices of the Johns Hopkins University. The investigations of these organizations are carried on by the instructors and students of the geological department, and, therefore, properly constitute a part of the university work.

THE MARYLAND GEOLOGICAL SURVEY

The Maryland Geological Survey has been in existence somewhat over seven years, having been established by an Act of the General Assembly in March, 1896. The bureau has been in charge of Professor Clark as State Geologist since its establishment. Its appropriations, which at the start were $10,000 annually, have been gradually increased until the combined resources of the Survey at the present time amount to $25,000 annually. With these increases in the annual appropriations have come added duties and increased responsibilities. The work of the Survey now covers a wide field, including geology, topography, terrestrial magnetism, forestry, hydrography, agricultural soils, and highway engineering.

The geological work, which is directly under the charge of the State Geologist, is divided into three divisions covering the areas of the Piedmont Plateau, the Appalachian Region, and the Coastal Plain. Investigations are in progress in all these districts, and important areas in each have already been thoroughly studied. Reports and maps have been issued for Allegany, Garrett and Cecil counties, while several others are ready for the press. In the conduct of the geological work the aid of numerous experts in various portions of the country has been sought, particularly in the study of the various groups of fossil plant and animal life. A number of distinguished American paleontologists have cordially cooperated with the regular staff in these investigations. A monograph on the Eocene deposits of the State has already been published, and a similar report on the Miocene deposits is now going through the press. Monographs on the Pleistocene, on the Devonian, on the Carboniferous, and on the Lower Cretaceous deposits are now in process of preparation.

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The topographic work has been continued in cooperation with the U. S. Geological Survey. The results of this work are presented to the public in the form of topographic and election-district maps, which show in a very detailed manner not only the relief of the land but all cultural features as well. Maps of Allegany, Garrett, Harford, Cecil, Kent, Worcester, Prince George's, Calvert, and St. Mary's counties have already been issued. More than two-thirds of the State has now been surveyed on the scale of one mile to the inch.

Investigations have been conducted as heretofore on the terrestrial magnetism of the State, in cooperation with the Division of Terrestrial Magnetism of the U. S. Coast and Geodetic Survey; on the areal distribution of the various soil types, in cooperation with the Bureau of Soils of the U. S. Department of Agriculture; on the drainage and hydrographic features of the State, in cooperation with the Division of Hydrography of the U. S. Geological Survey; and on forestry, in cooperation with the Bureau of Forestry of the U. S. Department of Agriculture. The work in these lines follows the completion of the topographic maps the same as the geological work which is conducted independently by our own staff. The results of these investigations in each county are printed in the various county reports.

The Highway Division of the Maryland Geological Survey is conducted under the immediate supervision of Professor Reid, although the strictly engineering work is directed by Mr. A. N. Johnson, who has several assistants under him. In this Division specifications for road construction are prepared for the various municipal authorities of the State, the Commissioners of many of the counties depending largely upon the services of the Division for all forms of highway improvement. Tests are made of the materials used on both city streets and country roads, and much more intelligent methods of construction are beginning to prevail as a result. The city of Baltimore for several years has submitted samples of vitrified brick and crushed stone, which it proposed using, before the contracts were awarded, and the materials subsequently furnished were required to meet the specifications prepared. The aid which the Highway Division can give to the various public interests of the State is coming to be more fully appreciated year by year.

The Maryland Weather Service

The Maryland Weather Service has been in existence twelve years, being organized in May, 1891, under the joint auspices of the Johns Hopkins University, the Maryland Agricultural College, and the U. S. Weather Bureau. It was incorporated as an official organization by an Act of the General Assembly in 1892 which was approved by the Governor on April 11. The State Service under this Act was permanently established at the Johns Hopkins University under the direction of a board of
control, who are nominated by the heads of the three institutions above mentioned and subsequently commissioned by the Governor. The appropriation for the maintenance of the Bureau has been $2,000 annually from the beginning, the fund being employed mainly for investigations relating directly to the climatology of the State.

The investigations of the Maryland Weather Service during the past year have mainly centered around the continued study which is being given to the climate of Baltimore by the meteorologist of the bureau, Dr. Fassig, and his assistants. This work is now rapidly reaching completion and will be published as a monograph during the coming year. It is planned to make the study much more complete than has ever been given to a similar area.

**The Mason and Dixon Line Re-Survey**

By an Act of the General Assembly of 1900, provision was made for the re-survey and re-marking of the Mason and Dixon Line which had become partially obliterated in the lapse of over a century since the boundary between Pennsylvania and Maryland was first established. Many of the monuments which marked the line had become destroyed or otherwise displaced, and an appropriation of $5,000 was made on behalf of each of the States of Maryland and Pennsylvania to re-locate and re-mark the line. Professor Clark was appointed by the Governor Commissioner on behalf of the State of Maryland, and since the year 1900 has been engaged with the Commissioner on behalf of the State of Pennsylvania in carrying out the provisions of the Act authorizing the survey. The work has been directly in charge of an expert engineer detailed by the Superintendent of the U. S. Coast and Geodetic Survey, his assistants being selected in part from Maryland and in part from Pennsylvania. It is now nearing completion and a report will shortly be made by the Commission to the Governors of the two States.

**Expositions**

The Commissioners on behalf of the State of Maryland to the Buffalo and Charleston Expositions, as well as the Commissioners to the St. Louis Exposition, requested Professor Clark to act as director of and prepare the State's mineral exhibits for all three of these expositions. At Buffalo and Charleston no provision was made for any other exhibit on behalf of the State, and the sum of $7,500 was assigned for the geological displays at both places. As the Charleston Exposition was to immediately follow that at Buffalo, it admitted of the direct transportation of the Buffalo exhibit to Charleston. This exhibit will now form the basis of the larger display at St. Louis, for which the St. Louis Commissioners have allotted the sum of $3,000.
State Bureaus

Much aid has been rendered the State official organizations above mentioned by the chiefs of the various national scientific bureaus. Particular reference should be made to the cooperation granted by Hon. Charles D. Walcott, Director of the U. S. Geological Survey, Professor Willis L. Moore, Chief of the U. S. Weather Bureau, and Professor O. H. Tittmann, Superintendent of the U. S. Coast and Geodetic Survey, all of whom have cordially supplemented the work of the State bureaus in highly important ways. The work of the State organizations is in progress along so many lines that it affords admirable opportunities to the advanced students of the geological department to obtain much-desired practical experience both in the field and in the laboratory; at the same time the State has received a large return at little cost, so that the benefits are mutually important.

Wm. Bullock Clark,
State Geologist and Director.
REPORT OF THE DEAN OF THE MEDICAL FACULTY

TO THE PRESIDENT:

I beg leave to submit the following report of the work of the medical department during the session of 1902-1903. This session marked the completion of the first decade in its history. Throughout this period there has been a steady increase in the number of students attending the courses, and a corresponding increase in the size of the teaching staff and the appropriations for the various departments. These external signs of the prosperity and success of the school, while most gratifying, have exceeded the anticipations of the Medical Faculty. It was thought that the high requirements for entrance into this school would ensure always classes of moderate size. But our experience of the last two years indicates that we may be obliged to face the problem of dealing with classes larger than we had thought it necessary to provide for in the beginning. While this occasion has not yet actually arisen, our numbers are sufficiently large to make the subject one to be considered seriously by the President and Trustees, as well as by the Medical Faculty. In the preparatory years the anatomical and physiological buildings may be arranged readily to meet the needs of larger classes if the necessity should arise, and, during the past summer, extensive changes have been made in the anatomical building for this purpose, but the pathological building has been unduly crowded for some time, and steps should be taken to provide more ample accommodations for the important subjects taught in this building. The most serious difficulty to be apprehended, however, even with classes of the size of the entering class of the past session, lies in the character of the practical instruction in the third and fourth years. In the fourth year the hospital instruction has been direct and personal to an extent difficult to parallel elsewhere. It is this very valuable part of the practical training of a physician which may be endangered by too great an increase in the size of the classes, unless it can be arranged to increase equally our hospital facilities. At the present time our most urgent need, perhaps, is to find a means of enlarging the opportunities for hospital instruction.

At the beginning of the past session (1902-1903) more than one hundred satisfactory applications had been received. Of this number ninety-eight came formally before the Medical Faculty, and were accepted with or without conditions. Two of the new applicants were admitted to advanced standing in the second year, so that the number of students
finally registered for the first year was ninety-six. Of this number three withdrew in the course of the year. The total number of students enrolled as candidates for the degree of Doctor of Medicine was 257 (26 women and 231 men), giving an increase of 23 over the registration at the beginning of the previous year. The colleges from which these students graduated and the States represented are given in tabular form in the eleventh annual catalogue and announcement of the medical department; ninety colleges in this country and Canada are represented in this list.

The work of the past year has proceeded in a most satisfactory manner; an excellent spirit has prevailed, it is pleasant to say, both among teachers and students. Several of the instructors were granted leave of absence during a part of the year, arrangements having been made for their work to be carried on by other members of the staff. Dr. William H. Welch was granted leave of absence during the month of October in order that he might give the Huxley address before the Charing Cross Hospital in London. Dr. H. O. Reik was granted leave of absence from February 1st on account of ill health. Dr. C. P. Emerson was granted leave of absence from March 1st to carry on special medical work in the hospitals of Paris. Dr. C. R. Bardeen was granted leave of absence from March 15th to undertake special investigations in the laboratory at Naples. Dr. William H. Howell was granted leave of absence from March 28th to study the methods of physiological instruction in foreign laboratories.

One of the most notable events in the history of the past year was an unexpected but very welcome gift of twenty-five thousand dollars from Dr. and Mrs. Christian A. Herter of New York. The object and conditions of this gift are described in the last annual catalogue of the medical department. The manner in which the gift was offered added greatly to the pleasure felt in receiving it, and no doubt is entertained that the memorial lectureship thus inaugurated will play an important part in the educational work of the school.

At the Commencement exercises in June, forty-nine students were awarded the degree of Doctor of Medicine. Of this number, the twelve whose records were the highest for the entire four years, were nominated to the Trustees of the Johns Hopkins Hospital for appointment as House Officers for the ensuing year. The twelve students who won this honor are, in order of merit, as follows: S. I. Rainforth, F. H. Watson, R. T. Miller, Jr., C. W. Young, C. E. Brush, Jr., V. H. Bassett, A. D. Hirschfelder, J. T. Geraghty, A. R. Stevens, L. C. Bixler, W. B. Moulton, and C. H. Travis. Drs. S. I. Rainforth, V. H. Bassett, and C. H. Travis declined the appointments, as they had accepted positions elsewhere, and Drs. H. D. Long, H. T. Hutchins, and T. F. Riggs were nominated to fill the vacancies. In addition to the twelve graduates who received these appointments in the Johns Hopkins Hospital, the following members of this class have obtained positions in other hospitals or medical schools:
Report on the Medical Department

V. H. Bassett, Instructor in Bacteriology and Clinical Pathology, Northwestern University, Chicago, Ill.
J. A. Chatard, Assistant Resident Physician, St. Joseph's Hospital, Baltimore.
G. E. Chinn, Jr., Clinical Assistant, Sheppard and Pratt Hospital, Towson, Md.
A. H. Clark, Interne, The Hartford Hospital, Hartford, Conn.
W. B. Cornell, Clinical Assistant, Sheppard and Pratt Hospital, Towson, Md.
R. Fayerweather, Orthopedic House Surgeon, Carney Hospital, Boston, Mass.
J. S. Fischer, Assistant Resident Physician, St. Joseph's Hospital, Baltimore.
F. J. Gaenslen, Interne, German Hospital, New York.
L. M. Gaines, First Asst. Surgeon, Rhode Island Hosp., Providence, R. I.
F. C. Goldsborough, Interne, Johns Hopkins Hospital.
J. F. Grant, Instructor in Anatomy, University of West Virginia, Morgantown, W. Va.
M. Lazenby, Interne, Church Home and Infirmary, Baltimore.
A. S. Loevenhart, Assistant in Physiological Chemistry, Johns Hopkins University.
E. J. S. Lupton, First Assistant Resident Physician, Columbia Hospital, Washington, D. C.
Leo A. Lynch, Assistant House Surgeon, The Society of the Lying-in Hospital, New York.
W. S. Manning, Clinical Assistant, The Emergency Hospital, Washington, D. C.
Mary E. Morse, Resident House Officer, New England Hospital for Women and Children, Boston, Mass.
H. B. Neagle, Resident Physician, The Loomis Sanitarium, Liberty, N. Y.
S. I. Rainforth, Surgical Interne, Presbyterian Hospital, New York.
G. C. Robinson, Assistant Demonstrator of Anatomy, Cornell University, Ithaca, N. Y.
M. P. Rucker, Demonstrator of Physiology, Medical College of Virginia, Richmond, Va.
F. Schmitter, Instructor in Anatomy, University of Wisconsin, Madison, Wis.
O. T. Schultz, Pathologist, Charity Hospital, Cleveland, O.
W. H. Smith, Interne in Gynecology, The Lakeside Hospital, Cleveland, O.
Catherine H. Travis, Resident House Officer, New England Hospital for Women and Children, Boston, Mass.

I regret very much to announce that three of our alumni and one of our undergraduate students have died during the year. Dr. William F. Hendrickson, a graduate in the class of 1900 and subsequently assistant demonstrator of pathology in the University of Pennsylvania, died August 21, 1902. Dr. Henry W. Ochsner, a graduate in the class of 1902 and subsequently a resident house officer of the Johns Hopkins Hospital, died November 25, 1902. Dr. A. M. Atherton, a graduate in the class of 1901 and subsequently a resident physician, Charity Hospital, Blackwell's Island, died August 28, 1903, and Mr. W. M. Mehord, of the second year class, was drowned in Canada during the summer.

The special courses offered to graduates in medicine during April, May and June, were attended by fifty-six physicians. In addition, thirty-eight physicians were in attendance for varying periods upon the regular courses given during the year. The enrollment of graduates for the entire year was, therefore, ninety-four, and the total number of students, graduate and undergraduate, amounted to three hundred and forty-nine. It will be seen from this summary that the number of graduate students in attendance during the year and also during the spring courses was somewhat less than last year. This reduction in number was not due to a diminution in the applications, but to the action of the Faculty, who, in view of the larger size of the undergraduate classes, felt impelled to limit the number of graduate students. Changes are now being made in the character of the courses offered to graduates which it is hoped will result in the development of a number of special courses, limited in size, to take the place of the larger general courses given heretofore. This change will probably result in a diminution in the number of graduate students, but will doubtless prove more satisfactory to all concerned in the fact that personal work will be demanded of the students and personal supervision will be given by the instructors. As usual a number of the instructors kindly volunteered to give special lectures or demonstrations in the evenings during the spring course to graduates. These lectures, for which no charge was made, contributed greatly to the pleasure and instruction of the graduate students. During the past session four of the former members of the department, Drs. I. P. Lyon, J. H. Pratt, G. Blumer and C. N. B. Camac, also consented to give lectures in this course.

It is a pleasure to report that the general appearance of the grounds has been greatly improved by the changes made during the past summer. The new railing and side-walk round part of the grounds and the greater attention paid to the lawns and tennis-courts are improvements that were greatly needed. It is to be hoped that during the coming year an effort will be made to complete the enclosure of the grounds and otherwise add to the attractiveness of the exterior of the buildings.

W. H. Howell,
Dean.
ABSTRACT OF THE REPORT OF THE JOHNS HOPKINS PRESS

The several serials have been continued through the year, as follows:

Of the Studies in Historical and Political Science, edited by Dr. J. M. Vincent, Dr. J. H. Hollander and Dr. W. W. Willoughby, the twentieth series has been completed. It contains 622 pages, octavo. The twenty-first series is now in progress. The issues have included papers on Continental Opinion regarding a proposed Middle European Tariff Union, the Wabash Trade Route in the Development of the Old Northwest, Internal Improvements in North Carolina, Japanese Paper Currency, Economics and Politics in Maryland, 1720-1750, and the Beginnings of Maryland, 1631-1639. Extra Volume twenty-five on the Finances and Administration of Providence, by Howard K. Stokes, has also been issued. It includes 474 pages, octavo. It is a contribution to the history of American municipal institutions, and is a companion to the Financial History of Baltimore, previously published in this series.

Of the American Journal of Mathematics, edited by Professor Morley, the twenty-fifth volume has been completed. The volume contains 400 pages, quarto, and nineteen separate papers. A portrait of Professor Cremona was issued with the volume.

Of the American Chemical Journal, edited by President Remsen, volumes twenty-nine and thirty have been issued. These contain 1,210 pages, octavo, in all.

Of the American Journal of Philology, edited by Professor Gildersleeve, volume twenty-three has been completed and three numbers of volume twenty-four have been issued. These numbers contain 500 pages, octavo.

Of the Memoirs from the Biological Laboratory, edited by Professor Brooks, volume five has been issued. It contains monographs by Dr. L. E. Griffin and Dr. J. E. Duerden and includes 306 pages, quarto, and 42 plates.

Of the Modern Language Notes, edited by Professor Elliott, volume eighteen has been completed. This includes 262 pages, quarto.

Of the Contributions to Assyriology, of which Professor Haupt is one of the editors, two parts of volume five have been issued. These include 232 pages, octavo, with illustrations and fac-similes.

Of the Journal of Terrestrial Magnetism and Atmospheric Electricity, edited by Dr. L. A. Bauer, volume seven has been completed and volume eight is in progress.

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Nos. 160 to 165 of the University Circulars have been issued since the last report. These Circulars will hereafter be issued in the octavo form, and form part of the official "University Publications."

The twenty-seventh Annual Report of the President was issued in December, the Annual Catalogue of the Medical Department in April, and the Annual Register of the University in June.

The volume descriptive of the Twenty-Fifth Anniversary of the Founding of the University and the Inauguration of President Remsen was issued in October, 1902. It contains 182 pages, octavo. An edition of 3,000 copies was printed. Copies have been sent to all of the participants in the celebration, to the Alumni, and to a large number of persons at home and abroad.

The principal separate publication of the year was the volume of Physical Papers of Henry A. Rowland. This includes 716 pages, royal octavo, with many illustrations. An edition of 1,000 copies was printed.

The publication of a series of Reprints of Economic Tracts, under the editorial direction of Dr. Hollander, was begun in January. Three tracts (one by Ricardo, one by Malthus, and one by Sir Edward West) have appeared.

The Taill of Rauf Coilyear, a Scottish Metrical Romance of the fifteenth century, edited with notes by Professor William Hand Browne, has just been issued. It makes a volume of 164 pages, octavo.

Of the Johns Hopkins Hospital Reports appearing irregularly, volume eleven, with 557 pages and 53 charts and illustrations, has been issued. Of the Bulletin of the Johns Hopkins Hospital, Volume XIV, with 372 pages, quarto, and numerous plates, has been completed.

The system of exchanges has been conducted as in previous years.

There have been received, in accordance with the regulations, 150 copies of the dissertations accepted for the degree of Doctor of Philosophy, from the gentlemen named below:

Benton, E. J.—The Wabash Trade Route.
Carver, B. F.—A Study of New Semipermeable Membranes prepared by the Electrolytic Method.
Child, C. G.—Palatal Diphthongization of Stem Vowels in the Old English Dialects.
Clark, F. E.—The Action of Substituted Ammonias of the Aliphatic Series on the Chlorides of Orthosulpho-benzoic Acid.
Coble, A. B.—The Relation of the Quartic Curve to Conics.
Coker, W. C.—On the Gametophytes and Embryo of Taxodium.
Coon, J. P.—A Study of Some New Semipermeable Membranes.
Custis, W. C.—The Life History, the Normal Fission and the Reproductive Organs of Planaria Maculata.
Duerden, J. E.—West Indian Madreporarian Polyse.
Fraser, W. R.—Metaphors in Æschines the Orator.
Frost, F. L.—The "Art de Contemplacio" of Ramon Lull.
Hicks, F. C.—Strengthening Modifiers of Adjectives and Adverbs in Middle High German.
James, G. O.—Some Differential Equations connected with Hyper-surfaces.
Lindsay, C. F.—A Study of the Conductivity of certain Salts in Water, Methyl, Ethyl and Propyl Alcohols, and mixtures of these solvents.
Loomis, H. B.—On the Effects of Temperature Changes on Permanent Magnets.
Miles, L. W.—King Alfred in Literature.
Moore, J. H.—The Fluorescence and Absorption Spectra of Sodium Vapor.
Richardson, G. B.—The Upper Red Beds of the Black Hills.
Rodeffer, J. D.—The Inflection of the English Present Plural Indicative.
Rosenau, W.—Hebraisms in the Authorized Version of the Bible.
Saffold, W. B.—The Construction with Iubeo.
Shattuck, G. B.—The Mollusca of the Buda Limestone.
Shaw, J. E.—The Use of Venire and Andare as Auxiliary Verbs in early Florentine Prose.
Shipley, Geo.—The Genitive Case in Anglo-Saxon Poetry.
Smith, A. W.—A Determination of the Heat of Fusion of Ice.
Weaver, C. C.—Internal Improvements in North Carolina previous to 1860.
Wilson, R. H.—The Preposition À: The relation of its meanings studied in Old French.
ABSTRACT OF THE REPORT OF THE LIBRARIAN

The number of bound volumes in the library is 110,790; the accessions during the year amounted to 5,574.

The number of pamphlets and unbound volumes received during the year exceeds 5,000. The total number of pamphlets is estimated at 100,000. Over 1,500 serials are regularly received.

The most important gift of the year was that of a considerable sum by a friend, whose name has not been announced, to establish and endow The Henry A. Rowland Memorial Library. This collection is to be devoted to works in radiation and spectroscopy.

Mr. Leopold Strouse has added to the Strouse Semitic Library an especially notable collection of Hebrew books and manuscripts comprising nearly 1,500 titles; he has also given 150 new books and 31 pamphlets in the field of general Semitic philology, as his annual donation.

Mr. B. N. Baker has added to our geological collection a valuable series of the publications of the British Geological Survey. This it is almost impossible to procure through the ordinary channels.

Mr. G. A. von Lingen has made large additions to our collection of the publications of the German Geological Survey.

Mr. Theodore Marburg has continued his annual gifts for the purchase of books in physics.

Friends of the late Dr. Sidney Sherwood have given a set of Franken­stein and von Heckel's Handbook of Political Science.

President Gilman has made a number of valuable gifts during the year. Notable additions have been made to our collection of books relating to capital and labor, through the generosity of a gentleman of Baltimore. Our collection of Trades Union documents is becoming one of the most complete in the country. A bibliography of these is now in press.

Other noteworthy gifts have been:—
From President Remsen, a number of volumes in chemistry.
From Dr. Theobald, 24 bound volumes and 71 pamphlets in medicine.
From the Duc de Loubat, two additional volumes reproducing old Mexican manuscripts.
From Yale University, the volume describing its bicentennial celebration, and the volumes of its bicentennial publications.
From the Indian Plague Commission, five folio volumes of its reports.
Professor Abbe has largely increased the meteorological collection bearing his name.
Messrs. Henry Holt & Co. have given their publications for the year. The New Mercantile Library has deposited fifty additional volumes. The usual academic publications have come from foreign and American universities and academies.

A list of donations for the year is appended.

The library has received, during the year, as a designated depository of the Library of Congress, the printed catalogue cards now being issued by that library. Suitable cases have been provided in the bibliographical room. This catalogue will be of growing importance from year to year, as a part of our bibliographical collection.

It is with much regret that I have to report the resignation of Mr. Melvin Brandow as assistant librarian. He has held the position for over ten years. His courtesy, his diligence, his accuracy and his scholarship have been recognized by all who have had occasion to make use of our collection.

Mr. M. L. Raney has been appointed assistant librarian, beginning with the academic year 1903-04.

The general library has been in charge of Mr. Brandow, with three assistants.

The classical library has been in charge of Dr. C. W. E. Miller, under the supervision of Professor Gildersleeve.

The modern language library has been in charge of Dr. Keidel, under the supervision of Professors Wood and Elliott.

The English library has been under the direction of Professor Bright. The historical collection has been in charge of Miss Duran, under the direction of Dr. Vincent.

The chemical library has been in charge of Dr. H. C. Jones, under the direction of President Remsen.

The biological library has been under the direction of Professor Brooks and Dr. Andrews, with a library attendant.

The geological library has been in charge of Dr. Mathews, under the supervision of Professor Clark.

The astronomical library has been in charge of Dr. Hulhurt.

The physical and mathematical seminary collection has been under the supervision of Professor Ames.

The library of the medical department has been under the supervision of Professor Howell, with an attendant in charge, and with the cooperation of Miss Bogg, who is in charge of the Hospital collection and of the University books there deposited.

During the year the New Book Department has purchased 2,083 volumes of the estimated value of $4,000. Since the opening of the department, over 107,000 volumes of the estimated value of about $170,000 have been received for inspection.

N. Murray,
Librarian.

1903, September 1.
GIFTS TO THE LIBRARY

ABBE, CLEVELAND. A large number of volumes for the Abbe Meteorological Library.

ABERDEEN, UNIVERSITY OF. Rectorial Addresses delivered in the University of Aberdeen, 1835-1900. Aberdeen. O. 1902.

AIX, UNIVERSITY OF. Sixteen academic publications.

ALBRIGHT OBSERVATORY. Miscellaneous Scientific Papers Nos. 4-9; Annual Report of the Director. 1902.

AMBROSOLI, E. (Author.) A Proposito delle Cosidette restituzioni. Milan, 1903. Q.

ASSOCIATION OF COLLEGIATE ALUMNÆ. Alice Freeman Palmer: In Memoriam. 1855-1902. Boston, 1903. Q.

AUGUSTANA COLLEGE LIBRARY. Uddeh, J. A. An Old Indian Village. 1900. Q.


BARTLETT, MRS. D. L. Storla Litteraria d'Italia, in six volumes; Mandoni, A. II Promessi Sposi. Milano, 1900. F.


BASLE, UNIVERSITY OF. Sixty-nine academic publications.

BASHFORETH, F. (Author.) Determination of the Resistance of the Air to the Motion of Projectiles. Cambridge, England, 1903. O.

BATSON, W. (Author.) Variation and Differentiation in Plants and Brethren. 1902. Q.

BATTIN, BENJAMIN F. (Author.) Das Ethische Element in der Aesthetik Fichte's u. Schelling's. Jena. 1901. O.

BEETLE, A. GRAHAM. (Author.) The Tetrahedral Principle in Kite Structure.

Washmgton, 1903. Q.

BENTLEY, RICHARD S. Annals of Sandy Spring. Baltimore, 1902. D.

BERLIN, KÖNIGLICHE TECHNISCHE HOCHSCHULE. Publications for the year.

BERLIN, UNIVERSITY OF. One hundred and ninety-nine academic publications.

BIRNICE PACAII BISHOP MUSEUM (Honolulu.) Occasional Papers, Vol. 1, No. 5; Director's Report for 1901, O.; Memoirs, Vol. 1, No. 5.

BISANCON, UNIVERSITY OF. Four academic publications.

BIGLOW, JOHN. Ceremonies on Laying the Corner-stone of the New York Public Library. New York, 1902. O.

BODKIAN LIBRARY. Seven academic publications.

BORGES, Oskar. (Author.) Uber Reaktionen der Dihalogenthymochinone. 1902. O.


BONBAUGH, CHAS. C. Forty-seven miscellaneous volumes and pamphlets.


BOND, ELIZABETH S. Holden, E. S. Memorials of W. C. Bond and of his son G. P. Bond. San Francisco, 1897. O.

BONN, UNIVERSITY OF. One hundred and seven academic publications.

BORDEAUX, UNIVERSITY OF. One hundred and thirty-six academic publications.
Gifts to the Library

Boston, Mayor of. (Hon. P. A. Collins.) Annual Report of the Executive Department. O.
Bowdoin College. Oration and Poem on the Occasion of the One Hundredth Anniversary of Bowdoin College. Brunswick, 1902. O.
Bright, James W. A number of books and pamphlets in English Literature.
Brioschi, Francesco. (Comitato per le Onoranze.) Opere Matematiche de Francesco Brioschi. Milan, 1902. Q.
Browne, W. Hand. A number of miscellaneous volumes.
Bryn Mawr College. Five academic publications.
Bump, C. W. Forty-nine miscellaneous publications.
Carne, University of. Twenty-five academic publications.
Caldwell, H. W. (Author.) Civil Government of Nebraska. 1902. S.
California, University of. Cooperative List of Periodical Literature; and other publications.
Cambridge (Mass) City Clerk. Annual Documents, City of Cambridge. 1902.
Carnegie Institution. (Washington.) Year Book. 1903. O.
Carré et Naud, (Éditeurs.) Lécons de physiologie experimentale. Paris, 1900. Q.
Casanowicz, L. M. (Author.) The Collection of Oriental Antiquities at the National Museum. 1902. O.
Cathell, D. Webster. (Author.) The Physician Himself. Philadelphia, 1902. O.
Catholic University of America. Publications for the year.
Channing, Walter, Channing, W. and Knowlton, W. M. A case of Metastatic Adrenal Tumors. O.
Charleston, 1903. O.
Chicago, University of. Thirty-nine academic publications.
Clare University. Inauguration of President Carroll D. Wright. Worcester, 1902. D; and other publications.
Clermont-Ferrand, University of. Two academic publications.
Cohen, Solomon Solin. (Author.) Two of his recent publications.
Colima, University of. Academic publications for the year.
Colorado, University of. Quarto-centennial Celebration. Boulder, 1902. Q.
Columbia University. Forty-six academic publications.
Cook, V. Y. Rogers, J. H. The South Vindicated. 1903. D.
Copenhagen, University of. Twenty-two academic publications.
Cornell University. Exercises in honor of Francis Miles Finch. Ithaca, 1902. O.; Academic publications for the year.
Courbein, Pierre de. (Author.) La Chronique de France 2e & 3e Année. 1901-2. D.
Cowles, Alfred H. (Author.) A Unit of Electrical Quantity for use in Electrochemical Calculations. O.
Cromer, J. G. and T. G. The Deed of Grant: Jane Lathrop Stanford to the Trustees of Leland Stanford Junior University.
Detroit, University of. Twenty-nine academic publications.
Gifts to the Library


EILANDER, UNIVERSITY OF. One hundred and sixty-one academic publications.

FIELD COLUMBIA MUSEUM. Publications for the year.

FREDERICQ, PAUL. (Author.) Corpus Inquisitionis Neerlandicae. V. (1525-1528.) Ghent. 1903. O.

FREEDMAN, LOUIS A. (Author.) Sustanz und Causaliät bei Berkeley. Strassburg. 1902. O.

FREMONT, V. (Author.) Three of his recent publications.

FRENCH EMBASSY AT WASHINGTON. Les Combattants Francais de la Guerre Americaine. 1777-1783. Paris, 1903. F.

FRERI, J. (Author.) The Propaganda. Baltimore, 1901. O.

FRIEDENWALD, HARRY. (Comp.) Memorial Services and Addresses upon the Life of Aaron Friedenwald. Baltimore, 1903. O.

GENEVA, UNIVERSITY OF. Fifty-eight academic publications.

GISSENDEN, UNIVERSITY OF. Forty-six academic publications.

GILDERLEEVE, B. L. A number of miscellaneous publications.

GILMAH, D. C. One hundred and forty-two miscellaneous publications.

GLASGOW, UNIVERSITY OF. Prize Lists from Session 1777-78 to Session 1832-33. Glasgow, 1902. D.

GLENN, JOHN, JR. Thirty miscellaneous publications. O. and Q.


GROENOWEG, UNIVERSITY OF. Fifteen academic publications.

GROENOWEG, C. V. (Author.) Zum feineren Ema der Trematoden. Lemberg. 1902. Q.

GUTTMACHER, ADOLF. (Author.) Optimism and Pessimism in the Old and New Testaments. Baltimore, 1903. O.


HALL, ASAPH, JR. (Author.) Aberration Constant from Zenith Distance of Polaris. Boston. 1902. F.

HALL, UNIVERSITY OF. One hundred and twenty-three academic publications.


HARVARD COLLEGE, ASTRONOMICAL OBSERVATORY. Publications for the year.

HARVARD COLLEGE, MUSEUM OF COMPARATIVE ZOOLOGY. (Prof. A. Agassiz, Director.) Publications for the year.


HARVEY, THOMAS W. (Author.) Memoir of Hayward Augustus Harvey. New York, 1906. O.

HASAN, JOHN T. (Author.) The Hassan Family. Boston, 1902. O.

Ezechiel Cheever. The Cheever MSS. and Letters. Boston. 1903. O.

HAUPT, PAUL. (Trans.) The Book of Canticles, a new rhythmical translation. Chicago, 1902. O.

HEIDELBERG, UNIVERSITY OF. One hundred and fifty-three academic publications.


HOBART COLLEGE. Proceedings at the Installation of President Stewardson. Geneva, 1902. O.


HOLLAND, MINISTER FOR THE COLONIES. Jaarboek van het Mijnwesen in Nederlandsch Oost-Indie. Batavia, 1901-02.

HOLT, HENRY, & CO. Their publications for the year.

HOMER, JAMES R. Commercial Statistics of the Port of Baltimore. 1902. O.

HUNGARY, ROYAL UNIVERSITY OF. Joannis Bolyai de Bolya. Editio nova. Budapest, 1902. Q.

ILLINOIS, UNIVERSITY OF. Academic publications for the year.
Gifts to the Library

Indian Plague Commission. Reports, Indices, etc. Calcutta and London, 1899-1901. F.


Iowa, Historical Department of. Shambaugh, B. F. History of the Constitution of Iowa. Des Moines, 1902. D.


Jamaica, Director of Public Gardens. Bulletins of the Botanical Department of Jamaica. Kingston, 1902. O.


Jefferson, Mark S. W. (Author.) The Geography of Lake Huron. Chicago, 1903. O.

Jena, University of. One hundred and twenty academic publications.


Karlsruhe, University of. Twelve academic publications.

Kiel, University of. One hundred and forty-one academic publications.

Konigsberg, University of. Seventy-two academic publications.

Kolozsvár, University of. Johannis Bodyal in Memoriam. Claudiopoll, 1902. Q.

Lafayette College. Address delivered at the Dedication of Gayley Hall. 1902. Q.

Lange, S. F. (Author.) The Greatest Flying Creature. Washington, 1902. O.


Lawson, Thomas W. The Lawson History of the America's Cup. Boston, 1902. Q.

Leptwich, R. W. (Author.) The Large Intestine Regarded as a Syphon. 1903. O.

Legras, Gustave. (Author.) Mathematics as a Means of Culture. O.

Leipzig, University of. Four hundred and fifty-five academic publications.

Leeland Stanford Junior University. Address of Jane Lathrop Stanford to Trustees of the University; and other publications.

Leon, Luis G. (Author.) Catalogo de Nebulosas y Massas Estelares. Mexico, 1903; Mundus Jovialis. Mexico, 1903. D.

Letchworth, W. F. (Author.) Homes of Homeless Children. New York, 1903. O.

Lевассер, Е. (Author.) Memoire sur les monnaies du regne de Francois 1er. Paris, 1902. Q.

Leyden, University of. Twenty-seven academic publications.

Lille, University of. Sixty-eight academic publications.

Lippincott, Constance. (Author.) Maryland as a Palatinate. Philadelphia, 1902. O.


Lowell City Library. Putnam, F. P. The John Davis Collection of Prints. O.

Loyola College. (Baltimore.) Historical Sketch of Loyola College. 1852-1902. Q.

Lyman, Benjamin S. (Author.) Four of his recent publications.

Lyons, University of. Two hundred and twenty-five academic publications.

McCreary, G. W. (Author.) Supplement to Street Index of Baltimore. O.

Macdonald, Arthur. (Author.) Nine of his recent publications.

McDonald, A. S. List of books on California and the Pacific. Oakland, 1903. O.
Gifts to the Library

McGe, Mrs. Anita N. Four reprints of her publications.


MacRae, Hugh, & Co. Thwaites, R. H. The American Invasion. Wilmington, 1902. O.


Macruder, E. P. Legislative History of the General Staff of the U. S. A. Washington, 1901. O.

Marburg, Theodore. Sixty-four volumes in physics.

Marvel, Joshua. (Author.) Address before the Department of Finance of the University of Pennsylvania. Wilmington, 1902. O.

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Richard, J. Sur le Muscum OceanoGraphique de Monsaco. Berlin, 1900. O.

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Mowry, Duane. (Author.) Some Thoughts on Public Reform. O.

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OSLER, WILLIAM. A number of volumes relating to medicine.

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PARIS, BIBLIOTHEQUE NATIONALE. Delisle, L. Fac-similés de livres copiés et enluminés pour le roi Charles V. O.

PARIS, UNIVERSITY OF. Faculté de Droit. Two hundred and seventy-four academic publications.

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PUTNAM, HELEN C. (Author.) Sir James Paget in his Writings. Bibliography. O.

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Smiley, Albert E. Lake Mohawk Conference on International Arbitration. 1902. O.
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Stockard, Sally W. (Author.) The History of Gullford County, N. C. Knoxville, 1902. O.
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Stocek, Carl. (Editor.) Correspondence of John Sedgwick, Major-General. Vol. II. 1903. O.
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Virginia, University of. Five academic publications.
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Gifts to the Library

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Gifts to the Library

Francisco Board of Supervisors; Society of Colonial Wars in Maryland; Sons of the Revolution (Pennsylvania Society); South Africa Geodetic Survey; Tasmania Geodetical Survey; Union of American Hebrew Congregations; University Club, New York City; Victoria Minister of Mines; Washburn Observatory; West Virginia Geological Survey; Wisconsin Banking Department; Wisconsin Tax Commission.

The University is indebted, as in previous years, for many and valuable gifts from the departments at Washington.
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REPORT

OF THE PRESIDENT OF

THE JOHNS HOPKINS UNIVERSITY

Baltimore, Maryland

1904

Baltimore
THE JOHNS HOPKINS PRESS
1904
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TREASURER OF THE UNIVERSITY

Charles J. Meyer
REPORT

To the Trustees of
The Johns Hopkins University:—

Gentlemen:

I have the honor to present to you my report for the last academic year, extending from September 1, 1903, to August 31, 1904.

Personal Changes

Mr. Henry J. Bowdoin, a member of the Board of Trustees, resigned April 11, 1904, and, on the second of May, Judge Henry D. Harlan was elected to fill the vacancy. Judge Harlan is President of the Board of Trustees of the Johns Hopkins Hospital, and the close connection that now exists between the hospital and the university and that must always exist according to the wishes of the founder, makes it especially desirable that he should be a member of the university board.

Near the end of the academic year death came to three of the most earnest and most honored members of the Board of Trustees.

Mr. William T. Dixon died August 16. He had been a member of the University Board since 1892 and of the Hospital Board since 1887. He was a member of the Finance Committee and always gave the most conscientious attention to his duties.
Mr. Lewis N. Hopkins, a relative of the founder, and a member of the original Boards of the hospital and the university, died August 19, after a lingering illness. He had acted as Secretary of the University Board since 1882.

Mr. Francis White, also one of the original members of the Boards of the hospital and the university, died September 11. He was the last surviving member in active service of the Board of Trustees of the university appointed by Johns Hopkins. From January, 1902, to January, 1903, he was acting President of the Board, and he was then unanimously elected President, but he declined the position much to the regret of the other members of the Board. In recognition of his important gifts to the university, the professorship of Greek has been named after him.

At a joint meeting of the Trustees of the university and the hospital, October 3, 1904, the following minute was adopted:

The Trustees of the Johns Hopkins University and of the Johns Hopkins Hospital have convened in joint session to express their appreciation of the character and public services of William T. Dixon, Lewis N. Hopkins, and Francis White, three Trustees common to both Boards, who have been removed by death since their stated meetings in June last.

Two of the number, Francis White and Lewis N. Hopkins, were appointed Trustees of the university and the hospital by the founder when these institutions were incorporated, and the third, William T. Dixon, was elected a member of the Hospital Board in 1887 and of the University Board in 1892. All had business talents of a high order which were freely given to the service of these Boards, and each ever displayed an enlightened interest and broad sympathy with the educational and philanthropic purposes of the university and the hospital.

William T. Dixon became a member of the Board of Trustees of the Johns Hopkins Hospital in 1887 as successor to the late John W. Garrett, and of the Board of Trustees of the Johns Hopkins University in 1892 as successor to the late Francis T. King. Upon the death of the latter he
became president of the Board of Trustees of the Johns Hopkins Hospital and served for a period of eleven years, until compelled to retire by reason of ill-health. He was a sagacious and clear-sighted man of business, a wise adviser, and a conservative counselor. He possessed unusual business ability and displayed an intuitive good judgment in the management of large properties. As a member of the finance committees of both institutions he improved their income and strengthened their investments. He was by nature warm-hearted and sympathetic and keenly alive to the philanthropic and educational aims of both institutions. He displayed much interest in the work of the training school for nurses and did much to improve and enlarge its curriculum. He was also an active factor in the organization of the medical department of the university and was always alive to its necessities. As a merchant and a man of affairs he displayed a fine sense of commercial honor and was always true to the best business traditions. He was seen at his best in his own home, and his family life was an ideal one. He loved his family; he had a warm affection for his friends. He served the community in many business capacities and often made heavy draughts upon his strength in his anxiety to do his whole duty. He was hospitable; he was interested in the poor; he was public-spirited, and was responsive to every call upon his time, his purse, and his personal energies.

Lewis N. Hopkins had served the university and the hospital as Secretary of their respective Boards of Trustees for many years. He was in a sense the personal representative of his uncle, the late Johns Hopkins, and had an intimate knowledge of his plans for the organization and development of the two institutions. He had a native kindliness of feeling and a sympathy for sickness and suffering which rendered him peculiarly interested in the special work of the hospital, and his voice and influence were given to every measure calculated to increase the scope of its work or to add to its usefulness. His pre-occupation with other duties rendered it difficult for a number of years to give the amount of time to the service of the university and the hospital which he desired. Latterly, also, the state of his health precluded very active service, but whenever he could be present at the meetings of either Board, he displayed a lively interest and a warm sympathy with their aims and purposes. He was a man of strong friendships and of much personal devotion to friends. In the weakness and distress of failing health and severe bodily disease he displayed much fortitude and native strength of character. He was patient, thoughtful of others, brave and uncomplaining.

Francis White was interested in the various forms of charitable and philanthropic activity long before he was selected by the late Johns Hopkins to assume an important part in organizing the foundations which bear his
Such preliminary training prepared him for the efficient service which he afterwards rendered for so many years. He was cautious, sagacious, and painstaking in the discharge of his duties, and gave his time and rich experience freely to promote the welfare of the two institutions here represented. For more than a quarter of a century he served as Treasurer of the Johns Hopkins University, and for a brief period he was President of the Board of Trustees. As Treasurer of the university he guarded it from financial embarrassment at a critical period of its history by exercising a rigid scrutiny of all expenditures, and by his business skill he was able to procure funds to maintain its efficiency. On several occasions he gave liberally of his means to assist the university in periods of severe financial stress, and during the last year of his life he had the satisfaction of knowing that his efforts, combined with those of many others in the city, had re-established the university upon a sure and lasting foundation. He was a warm and interested friend of the members of the university faculty and hospital staff, and his hospitable home was often opened to them. He was a good citizen and was warmly interested in promoting good government and municipal reform. He was simple in his tastes and avoided rather than sought the public eye. He was genial, warm-hearted and cordial in private life, a firm and lasting friend. The importance of his personality to the development and growth of the university and the hospital cannot be overestimated.

**WILLIAM KEYSER AND WILLIAM WYMAN**

Two men whose names will always be remembered by those who have the interests of the Johns Hopkins University at heart are William Keyser and William Wyman. The new movement that relieved the university from financial embarrassment was largely due to their efforts. Both gave generously of their possessions, and their action stimulated others to similar deeds, with the result that it has been possible to make a radical change in the policy of the institution. The timidity that was necessarily connected with the uncertain state of our finances has given way to a feeling of confidence and hope. We are now moving forward, and this movement, I am sure, will continue. In this connection it
is impossible to overestimate the value of the services of William Keyser and William Wyman. Both of these benefactors have died within the past year.

At a meeting of the Trustees, December 7, 1903, the following minute, commemorative of Mr. Wyman, was adopted:

The Board of Trustees of the Johns Hopkins University desire to place on record their regret at the death of Mr. William Wyman, which occurred at 'Homewood' on the twenty-sixth day of November, 1903, in the seventy-ninth year of his age.

Mr. Wyman, a native of Baltimore, was during his entire life a quiet, unassuming citizen of most charitable disposition. Towards the close of his life he gave to this university his portion of the Homewood estate, which he inherited from his father, and which was for over sixty years his home.

This gift came at a time when the affairs of the university were the subject of grave concern to its friends. Its value, great in itself, was enhanced by the impulse it gave to others, who, promptly following Mr. Wyman's example, gave expression to their friendship for the university by donating to it additional lands and the sum of $1,000,000.

The further provision for the university which Mr. Wyman made by his will, showed the unflagging interest he felt in it to the day of his death, and his desire, so far as lay in his power, to aid it after his death.

In grateful memory of his liberality to this university and of his character and virtue as a man, the Board of Trustees direct that the President of the university procure, or have painted, a portrait of Mr. Wyman to be hung in an appropriate place in McCoy Hall; and that, as soon as the university is moved to 'Homewood,' a suitable memorial of Mr. Wyman be provided and put up on the land donated by him, at a place to be hereafter designated.

At a meeting of the Trustees, June 7, 1904, the following minute, in commemoration of Mr. Keyser, was adopted:

The Trustees of the Johns Hopkins University record their sense of the loss which the university has sustained in the death of Mr. William Keyser. For many years he was among the most active of its friends, ever ready to help it in its needs. His interest culminated in the gift of a fine tract of land at Homewood and in the initiation of the movement which resulted in the gift of $1,000,000 as an endowment fund. This gift has enabled the university to prosecute its work with new vigor and promises
to increase greatly its usefulness. The results of Mr. Keyser's action mark an epoch in the life of the Johns Hopkins University. The Board of Trustees is sensible of its great debt to him.

The services of Mr. Keyser to the university were not rendered through his direct benefactions alone. The board feels that the university, in common with the community, has suffered a peculiar loss in the death of a man whose whole life was an inspiring example of good citizenship and civic duty. His public service in a private station offers a practical example of the fulfilment of the ideals which the university endeavors to inculcate.

A meeting of the teaching staff of the university was held in the Donovan Room, June 10, 1904, at 12 noon, to take appropriate action in view of the death of Mr. Keyser.

The President spoke of Mr. Keyser's deep interest in the work of the university and of the importance of his life to the city of Baltimore and the state of Maryland.

Professor Gildersleeve then read the following minute and resolution:

The teaching staff of the Johns Hopkins University, in special meeting assembled, desire to place on record their appreciation of the character and services of the late William Keyser and their sorrow at the sudden termination of a life of high example and rare beneficence.

No death could come nearer to the heart of the Johns Hopkins University than the death of William Keyser. The work of the university could never have perished utterly, such was the wisdom of the plan on which it was framed; but there was a time when it seemed to some as if progress were impossible, as if all that the lovers of the university could do was to strengthen the things that remained and wait for better times. And yet for an institution like ours not to advance was to recede. At that turn in our affairs, when faith and hope seemed to fail even the faithful and the hopeful, it was William Keyser that came to the rescue, and side by side with Johns Hopkins, the Founder, we shall remember William Keyser, the Upholder. A man of eminent sagacity, he did not wait until the discouragement manifested itself to the world without, and the note of reinforcement was heard before the disarray set in. How timely it all was, the raising of the million-dollar fund, the acquisition of Homewood, the pledge of perpetuity for the achievements of the past, the assurance of hope for the expansion of the future; how timely it all was we can see by the
light of the great conflagration, which would have made such plans as his impossible or postponed them to a day beyond the vision of this generation. In this renewal of life and hope, William Keyser was the leader, the inspirer, and our admiration of him is enhanced as we remember that this memorable movement was only a part of the liberal things that he devised for the city of his birth and his love. In business, in politics, in the cause of religion, the cause of humanity, it was always the same large nature, the same unshaken will, the same calm foresight, the same energetic utterance, the same commanding presence that made for all that was righteous, all that was generous. It is an honor to Baltimore that such a man should have unfolded so freely in this community; an irreparable loss to Baltimore as well as to the university that his living example should have been withdrawn from us at a time when even in the ripeness of his years there was so much that he alone could have done. Be it, therefore,

Resolved, That the foregoing tribute to the memory of William Keyser be inscribed on the records of the university, and a copy of the proceedings of this meeting be transmitted to the widow and the children of our friend and benefactor.

Appropriate remarks were made by Professors Griffin, Ames, and Hollander, after which the minute and resolution were unanimously adopted by a rising vote.

RECENT APPOINTMENTS

The following new appointments and promotions in the faculty have been made for the coming year:

In the Philosophical Faculty:

To be Professors:

Jacob II. Hollander, Ph. D., Political Economy.
Harry C. Jones, Ph. D., Physical Chemistry.
Edward B. Mathews, Ph. D., Mineralogy and Petrography.
George M. Stratton, Ph. D., Experimental Psychology.

To be Lecturers:

John M. Glenn, A. M., Public Aid, etc.
Clayton C. Hall, A. M., Insurance.
Friedrich Keutgen, Ph. D., Medieval History.

To be Associate Professor:

John B. Whitehead, Ph. D., Applied Electricity.
To be Associate:

George E. Barnett, Ph. D., Political Economy.

To be Instructors and Assistants:

John W. Baird, Ph. D., Psychology.
James Barnes, Ph. D., Physics.
Arthur B. Coble, Ph. D., Mathematics.
Rheinart P. Cowles, Ph. D., Biology.
De La Warr B. Easter, A. M., French.
John C. French, A. B., English.
Charles K. Swartz, Ph. D., Geology and Paleontology.
J. Bishop Tingle, Ph. D., Chemistry.

In the Medical Faculty:

To be Associate Professors:

Percy M. Dawson, M. D., Physiology.
Joseph Erlanger, M. D., Physiology.
Warren H. Lewis, M. D., Anatomy.
Hugh H. Young, M. D., Genito-Urinary Surgery.

To be Associates:

Thomas R. Brown, M. D., Medicine.
Rufus I. Cole, M. D., Medicine.
Louis P. Hamburger, M. D., Medicine.
Arthur S. Loevenhart, M. D., Physiological Chemistry and Pharmacology.
Thomas McCrae, M. D., Clinical Therapeutics.

To be Instructors:

Charles H. Bunting, M. D., Pathology.
Ernest G. Martin, Ph. D., Physiology.
Augustus G. Pohlmans, M. D., Anatomy.
J. Morris Slemons, M. D., Obstetrics.
George I. Streeter, M. D., Anatomy.

To be Assistants:

Robert B. Bean, M. D., Anatomy.
William W. Francis, M. D., Pathology.
August E. Guenther, S. B., Physiology.
Henry W. Kennard, M. D., Orthopedic Surgery.

The appointment of Professor Friedrich Keutgen, of the University of Jena, to be Lecturer in Medieval History for the coming year, is especially noteworthy. No one has yet been appointed to fill the place of the late Professor Herbert
B. Adams. Professor Keutgen's presence will no doubt add strength to the department and give the students an excellent opportunity to come in contact with a teacher and investigator of renown.

Since the appointment of Professor J. Mark Baldwin as Professor of Philosophy and Psychology, much attention has been given under his guidance to the organization of a department of Philosophy. To this end several additional appointments have been made. The principal one is that of George M. Stratton, Ph. D., Assistant Professor of Experimental Psychology in the University of California, to be Professor of Experimental Psychology. Professor Stratton will enter upon his duties in October, 1904. Other appointments in this department are Dr. E. W. Scripture as Lecturer on Experimental Phonetics, Mrs. C. L. Franklin as Lecturer on Symbolic Logic, and Dr. C. B. Farrar as Lecturer on Physiological Psychology.

Ample provision has been made for the accommodation of the present work in philosophy and psychology. The second floor of Levering Hall has been subdivided, making a large room for the philosophical library and the seminary work and an office for Professor Baldwin. This leaves a lecture-room seating about two hundred persons, available for general purposes, which will no doubt be more useful than the original large room. These rooms are directly connected with McCoy Hall. The northern half of the third story in the biological laboratory has been set apart for the work in experimental psychology under Professor Stratton. Three large rooms are being fitted up, your Board having made a liberal appropriation for apparatus and furniture.
PUBLIC LECTURES AND ASSEMBLIES

A large number of lectures were open to the public during the session.

The Percy Turnbull Memorial Lectures on Poetry were given in January and February by Count Angelo de Gubernatis, Professor of Italian Literature in the University of Rome. His subject was in the field of Italian Poetry and he gave nine lectures (in French).

Two noteworthy courses were given on Archaeology. Dr. Frederick J. Bliss, late Field-Officer of the Palestine Exploration Fund, gave six lectures, in February, on the “Archaeology of Palestine,” and Professor William N. Bates, of the University of Pennsylvania, gave twenty-five lectures on “Greek Archaeology,” during the second half-year.

Professor George Steindorff, of the University of Leipzig, gave five lectures, in March, on the “Religion of Egypt.”

The first course of lectures on the Herter foundation was delivered, in April, by Professor Paul Ehrlich, Director of the Royal Prussian Institute of Experimental Therapeutics at Frankfort-on-the-Main. He gave three lectures (in German) on subjects relating to “Immunity.”

Dr. Samuel H. Butcher, of London, Emeritus Professor of Greek in the University of Edinburgh, gave two lectures, in April. His subjects were “Greece and Phoenicia” and “The Imaginative Mind of Greece.”

A course of six illustrated lectures on the “Expansion of Geographic Knowledge as recorded in the work of the Cartographers” was given in McCoy Hall by Professor E. L. Stevenson, of Rutgers College.
Dr. James Schouler, of Boston, continued his course, begun three years ago, on the "Life of the People during the [American] Revolution," giving four lectures.

At the opening of the year Dr. C. A. Herter, of New York, founder of the Herter Lectureship, delivered an address before the medical department on the "Influence of Pasteur on Medical Science."

Mr. Julian Le Roy White, of Baltimore, gave an illustrated lecture on the work of Frémiet, the French sculptor, who modelled the bronze statue of John Eager Howard, recently erected in Baltimore.

Courses for teachers and other persons not connected with the university were given on Saturday mornings from October to March, as follows: Botany, twenty lectures, with laboratory exercises, by Dr. D. S. Johnson; Latin, three courses of twenty lessons each, by Dr. H. L. Wilson; Hebrew, two courses of twenty lessons each, by Dr. T. C. Foote. In connection with the Latin courses, lectures open to the public were delivered by Professor W. P. Mustard, of Haverford College, on "Classical Echoes in Tennyson," and by Professor K. F. Smith, on "A Roman Theatrical Performance."

Two lectures were given in McCoy Hall, before the Scientific Association of the university, to which the public were invited. The lecturers were Dr. D. S. Johnson, Associate Professor of Botany, on the "Vegetation of a Tropical Island," and Mr. W. D'A. Ryan, of the General Electric Company, on "Light and Illuminating Engineering."

Four lectures were given during the year, in McCoy Hall,
under the auspices of the Baltimore Society of the Archaeological Institute of America, by Professor Bates, of the University of Pennsylvania, Professor Fairbanks, of the State University of Iowa, Professor Moore, of Harvard University, and Professor Seymour, of Yale University.

The seventh annual debate and contest in public speaking by undergraduates was held in March. The following gentlemen acted as Judges on this occasion and to them the thanks of the university are due, namely, Messrs. Leigh Bonsal, Charles McHenry Howard, Lewis Putzel, Morris A. Soper, George Whitelock, William Winchester.

McCoy Hall was placed at the disposal of the School of Instruction of the United States Revenue Cutter Service for a lecture by Lieutenant Carden, of the Revenue Cutter Service, in which he described the architecture, the power-plant, and the machinery display of the St. Louis Exposition, and the great iron and steel manufacturing establishments of Europe.

Under the joint auspices of the Tuberculosis Commission of Maryland, the State Board of Health, and the Maryland Public Health Association, there was given in McCoy Hall an "objective presentation to the people of Maryland of the history, distribution, varieties, causes, cost, prevention, and cure of tuberculosis." Statistical tables, photographs showing the relations of the factory, tenement, and sweat-shop to tuberculosis, an exhibit of State and municipal prophylaxis, of sanatoriums and dispensaries, of methods of home treatment and house hygiene, occupied the corridors on the first floor and part of the assembly room. Lectures and
addresses were delivered by experts from various parts of the country. The exhibition was open for ten days and attracted a large number of visitors.

The following societies also held meetings in our halls:

The Federated Charities of Baltimore, the National Civil Service Reform League, the Municipal Art Society of Baltimore, the Archæological Institute of America (Baltimore Society), the Botany Club of Baltimore, the Farmers' League of Maryland, the Playground Association of Baltimore, the Industrial Education Association, the Public School Teachers' Association, the Baltimore County Teachers' Institute.

**Commemoration Day**

For the first time in the history of the university no public exercises were held on the 22nd of February, known as Commemoration Day. The reason for this was that a fortnight before that date the great fire of Baltimore occurred. This led to so much disturbance in the life of the city and so distracted the attention of the citizens that all agreed that it would be best not to attempt anything suggestive of festivity. An informal meeting of the Alumni Association was held and addresses were made by several of those present.

**Commencement**

The public exercises in connection with the bestowal of degrees were held in the Academy of Music, June 14, 1904. Diplomas were given to thirty-six Bachelors of Arts, twenty-nine Doctors of Philosophy, and forty-five Doctors of Medi-
The chief address was delivered by John Huston Finley, LL. D., President of the College of the City of New York. The usual reception to the graduates and their friends was given in the evening in McCoy Hall.

**Prizes**

The John Marshall Prize, which consists of a bronze likeness of Chief Justice Marshall, was awarded this year to Davis Rich Dewey (Ph. D., Johns Hopkins, 1886), in recognition of his recent work entitled "Financial History of the United States." The recipients of this prize are named below:

1892. Henry C. Adams, Ph. D. 1897. J. Franklin Jameson, Ph. D.
1892. Charles H. Levermore, Ph. D. 1898. Charles D. Hazen, Ph. D.
1892. John M. Vincent, Ph. D. 1899. Jacob H. Hollander, Ph. D.
1892. Woodrow Wilson, Ph. D. 1900. James M. Callahan, Ph. D.
1894. Amos G. Warner, Ph. D. 1902. James C. Ballagh, Ph. D.
1895. Albert Shaw, Ph. D. 1903. James A. Woodburn, Ph. D.

The Henrico Medallion, a copper bas-relief commemorating the foundation of a university at Henrico, in Virginia, in the year 1619, the gift of the Colonial Dames of America, Chapter I, was awarded to St. George Lea kin Sioussat (A. B., Johns Hopkins, 1896, Ph. D., 1899), as a recognition of his papers entitled "Economics and Politics in Maryland, 1720-1750," and "The English Statutes in Maryland," recently published in the University Studies in Historical and Political Science.

The Tocqueville gold medal, the gift of the Baron Pierre de Coubertin, of Paris, commemorating the name of the
illustrious Frenchman, Alexis de Tocqueville, was awarded to Gerald Benjamin Rosenheim (A. B., 1904), for his essay on “The Policy and the Political Relations of France in the Far East.”

**Publications**

The various serial publications of the university have appeared as usual. The list now includes the following journals:

The American Journal of Mathematics, in its twenty-sixth volume; the American Journal of Philology, in its twenty-fifth volume; the American Chemical Journal, in its thirty-second; Studies in Historical and Political Science, of which the twenty-first series is completed, and several extra volumes have been issued; the Journal of Experimental Medicine, which has entered upon its seventh volume; and Modern Language Notes, of which nineteen volumes are nearly complete. The Contributions to Assyriology, the Memoirs from the Biological Laboratory, and the Journal of Terrestrial Magnetism have also been issued under the editorial direction of university professors.

**Gifts and Bequests**

Under the will of the late Leopold Strouse, of Baltimore, the university has received from his executors the sum of two thousand dollars, the income to be devoted to the increase of the library which bears his name and which we owe to his generosity.

The sum of one thousand dollars to promote the systematic investigation of labor organizations, given annually for two
years past by an anonymous friend, has again been presented to the university.

Mr. Abram G. Hutzler, of Baltimore, has again shown his generosity by the gift of five hundred dollars to be expended in securing much-needed books relating to the science of political economy. These books will be preserved as a distinct collection.

The university has received from the widow of Alfred W. Stratton, a Fellow and a Doctor of Philosophy of this university, the library of her husband, consisting of books pertaining to Sanskrit and Comparative Philology.

Professor M. M. Metcalf, of the Woman’s College of Baltimore, has given to the university the sum of four hundred dollars, to cover the expense of a micro-photographic apparatus for the biological laboratory.

A number of friends of the late Professor H. B. Adams have presented a bronze memorial tablet, containing his portrait in relief, and this has been placed on the wall adjoining the historical seminary room.

Mrs. David L. Bartlett, of Baltimore, has presented a portrait of Gaston Paris, which has been hung in the romance seminary room.

Some time ago a committee of the Trustees of the Hospital, acting with a committee from the University Board, requested Miss Mary E. Garrett to sit for her portrait. In January last your Board was informed that Miss Garrett had consented to sit and that the portrait was to be painted by John S. Sargent during the ensuing summer. The portrait has since been received and is now hung in McCoy Hall, with
the other portraits in our possession. It is generally regarded as very successful, and the university is to be congratulated on possessing a work of art of such high merit and on having a portrait of Miss Garrett, to whom the existence of the medical department is due.

In this connection another instance of liberality on the part of Miss Garrett should be mentioned. She has recently fitted up a room in the administration building of the hospital for the use of the young women attending the medical department. It is tastefully and appropriately furnished with rugs, couches, easy chairs, a writing desk, and a book-case with a small library of standard books. There is also a regular supply of magazines, periodicals, and weekly newspapers. The room thus serves as a resting and reading room for the women students whenever they have time to resort to it, and is becoming more and more appreciated.

STATE APPROPRIATION

The Legislature at its session in the winter of 1904 renewed its appropriation of twenty-five thousand dollars a year for two years, and, in recognition of the aid thus received from the State, the university continues to offer twenty scholarships annually to Maryland youth who desire to pursue their studies here.

JOHNSTON SCHOLARSHIPS

In my last report it was stated that "under the will of the late Mrs. Harriet Lane Johnston, formerly of Baltimore, the university will come into possession of a fund amounting
to $90,000 for the establishment of scholarships in memory of Mrs. Johnston's husband and two sons who died some years ago."

Anticipating the receipt of the fund, you adopted resolutions (June 7, 1904) by which you accepted the gift and placed upon the Academic Council the responsibility of prescribing the qualifications and attainments of persons who may hold the scholarships and of making the award.

The executors of Mrs. Johnston's will have since transferred to the university the sum named, and, in accordance with your resolutions, the Academic Council will prescribe the qualifications and attainments of persons who may hold the scholarships. The money not having been made available before the beginning of the academic year, the appointment of these scholars for 1904-05 will have to be made later in the year.

Professorships Named

After careful consideration the Trustees decided to name professorships after four of the principal benefactors of the university, and, in accordance with the recommendation of the Academic Council, the Board voted that the professorship of Greek be named after Francis White, the professorship of Semitic Languages after William W. Spence, that of Zoology after Henry Walters, and that of Chemistry after Bernard N. Baker.

The omission of the names of William Keyser and William Wyman from the list will at once be noted. It should be stated, by way of explanation, that they expressed
a preference to have their names commemorated at "Home-
wood," and in due time they will no doubt be properly
honored by associating them with something that has a
permanent habitation at the new site of the university.

MEDICAL DEPARTMENT

In the report of the Dean of the Medical Faculty, atten-
tion is called to the appointment of an official Medical
Adviser for the medical students. I quote from the report:

"During the year a special committee, appointed by the
Faculty and consisting of Professor Kelly and Doctors Emers-
son and Harris, made a report to the Advisory Board of the
Medical Faculty upon the health of the students. This report
is on file in the Dean's office. In accordance with the recom-
mendations of this committee, the Faculty requested the
Board of Trustees to appoint an official Medical Adviser for
the students. This request was granted by the Trustees on
March 7th and Dr. R. I. Cole was named as Medical Adviser
for the current session. His duties, as defined by the reso-
lution of the Board of Trustees, are as follows: 'This officer
is to have a definite hour for consultation with the medical
students, is to be prepared to visit in their own homes, when
called upon, such students as are unable to meet him at his
consultation hour, and is to obtain, when necessary, the ser-
dices of specialists for special examination and treatment.'

The medical service thus provided for is free to the students,
the salary of the Adviser being paid by the medical depart-
ment of the university. Our experience has already dem-
onstrated most strikingly the wisdom of this new departure.
A considerable number of the students have availed themselves of the services of the Medical Adviser, and the prompt treatment thus obtained both in medical and surgical cases has been undoubtedly to their advantage. It is to be hoped that the services of the Adviser may be extended in the direction of protecting the students from any obviously unhygienic surroundings during their residence in Baltimore."

This action will be recognized as an important step forward, and I here venture to express the hope that similar action may be taken looking to the needs of the graduate students in the philosophical faculty and of the undergraduates.

In the report of the Dean it is stated that "a new surgical building on the site of the former amphitheatre will be completed before the beginning of the academic year 1904-05. This will give greatly increased facilities for clinical instruction." I am glad to be able to say that this building was completed and opened with interesting ceremonies on October 5th.

**Development of Homewood**

In my last annual report I stated that I had appointed an Advisory Board to aid me in carrying out the instructions contained in your resolution of November 3, 1902. According to the terms of that resolution I was requested to collect information and report my recommendations to the Board of Trustees. The Advisory Board promptly took up their work. They held a meeting in Baltimore, at which Mr. Keyser and I were present. We agreed upon a plan of procedure, which was essentially this. A statement of the
present and probable future needs of the university in the way of buildings was first to be prepared by myself after consultation with members of the academic staff. The Advisory Board was then to prepare a programme or specification to be presented to a few architects who were to be invited to send in plans in accordance with the specification. This course was followed. The architects invited to compete were Peabody & Stearns, of Boston, Carrère & Hastings, of New York, William A. Boring, of New York, Parker & Thomas, of Baltimore, Baldwin & Pennington, of Baltimore. All accepted the invitation. The designs were to be sent in on or before October 1st, 1904.

I need only say that all the plans were duly received and they have been carefully examined. As this subject will, however, be presented to you in a special report, and, as the final act in this series of events occurred after the close of the last academic year, nothing more need be said in regard to it here, except this, that the problem with which we were dealing was a difficult one. There was no experience to guide us, and it was therefore necessary to work out the solution entirely independently. Progress may have appeared to be slow, but, in fact, it was hardly possible to move more rapidly without running the risk of making a false step. As matters now stand, I feel sure that the course we have pursued will commend itself to those who know the facts.

CONCLUSION

In conclusion, permit me to say that, in my opinion, our work is now progressing satisfactorily. All the departments
that are included in the scope of the university are well provided with books and apparatus, and the new needs are being met as they arise. I do not know of any important piece of work in the field of the natural sciences that is languishing for lack of apparatus or material; and I believe all the important books needed by those whose work lies in the field of the non-laboratory subjects are available, either in our own library or in other libraries that are easily accessible. We are of course constantly adding books and apparatus, and funds must be made available to provide them.

I call attention to the fact that a few important subjects are not at present properly represented in the university. I need not here specify these subjects, but in due time I shall ask you to make provision for the departments I have in mind.

Respectfully submitted,

IRA REMSEN.

December 5, 1904.
Mathematics

Graduate Courses

Professor Morley gave the following courses:

1. Advanced Geometry.

After a discussion of the general principles of Projective Geometry the cubic curves in a plane were considered in detail, from various points of view. In connection with a special pencil of cubics a curve of the fifth order of genus 6 was found to be quite accessible and was discussed. Some time was then devoted to the mapping of the plane on to a surface by means of conics and cubics.

2. Vector Analysis.

This, a half-year's course, was a systematic presentation, limited to the plane, of memoirs by the lecturer and others. Exercises were given in connection with this course by Dr. Converse.

3. Theory of Functions.

A sketch of Riemann's theory of algebraic functions and their integrals was followed by an account of Weierstrass's views on elliptic functions, the special aim being a working-knowledge of these functions.

4. During the second half-year, Professor Morley met the advanced students one hour weekly for the discussion of important works. The value of the plan was at once apparent and it will be followed in future.

Dr. Cohen gave the following courses:

1. Elementary Theory of Functions. Twice weekly through the year.

This course began with quite a full account of the theory of series, including Fourier series. This was followed by an extended study of the elementary theory of uniform and algebraic functions of the complex-variable. The course concluded with a study of singly and doubly periodic functions.

2. Partial Differential Equations. Twice weekly through the year.

This course began with a proof of the general existence theorem for a system of partial differential equations. There were then taken up in order
the methods of Lagrange and Jacobi and Mayer for linear partial differential equations of the first order, and the methods of Lagrange and Charpit, Cauchy, Jacobi, and Lie for equations other than linear.


After a brief study of curves, the elementary theory of surfaces was developed. The course was based mainly on Darboux, Bianchi, and Joachimsthal.


This course was based on Dirichlet, Mathews, Bachmann, and Borel.

The Seminary met weekly, and was principally directed to the results of the students' own thinking.

The American Journal of Mathematics is in its twenty-sixth volume. With this volume is presented a portrait of Professor Nöther.

**Undergraduate Courses**

The undergraduate courses are much the same from year to year. During the past year they were given as follows:

**Third-Year Course (Elective):**

Elementary Differential Equations. *Twice weekly through the year.* Dr. Cohen.

**Major Course:**

Determinants. *Four hours weekly during October.* Professor Hulburt.

Analytic Geometry of Three Dimensions. *Four hours weekly during October, November, and December.* Professor Hulburt.

Differential and Integral Calculus (special topics). *Four hours weekly during January and February.* Professor Hulburt.

Elements of Projective Geometry. *Four hours weekly during remainder of the year.* Professor Hulburt.

**Minor Course:**

Analytic Geometry. *Four hours weekly until December.* Professor Hulburt.

Differential and Integral Calculus. *Four hours weekly, December to the end of the year.* Professor Hulburt.

**For Candidates for Matriculation:**

Algebra (special topics); Solid Geometry; Plane Trigonometry; Analytic Geometry (straight line and loci). *Four hours weekly through the year.* Dr. Converse.

**Frank Morley,**  
*Professor of Mathematics.*
Physics

The Physical Laboratory has been open daily during the year for the work of advanced and undergraduate students. Regular courses of lectures have been given, and meetings have been held weekly for the reading and discussion of the current journals. The Physical Seminary has also met once each week, and the list of papers presented is given below.

The regular courses of instruction were as follows:

By Professor Ames:
1. Physical Seminar. *One hour weekly through the year.*
2. General Physics: Thermodynamics, Heat Conduction, and Light. *Four hours weekly through the year.*
3. General Physics: Minor Course. *Three hours weekly through the year.*
4. Journal Meeting. *One hour weekly through the year.*

By Professor Wood:
1. Physical Optics. *Three hours weekly through the year.*
2. Spectroscopy. *Weekly through the year.*
3. Recent Progress in Physics. *At occasional intervals through the year.*

By Professor Bliss:

*General Physics: Major Course. *Four hours weekly through the year.*

By Dr. J. B. Whitehead:
1. Applied Electricity. *Two hours weekly through the year.*
2. Reviews in General Physics: Minor Course. *Weekly through the year.*

By Mr. L. E. Jewell.

*The Elements of Astronomy. Weekly through the year.*

The laboratory work for undergraduates has been under the direction of Professor Bliss, with the assistance of Dr. Whitehead, Mr. Allan, and Mr. Barnes. The work in applied electricity has been directed by Dr. J. B. Whitehead, and that of the astronomical observatory by Mr. L. E. Jewell. The advanced work and the original investigations have been under the direction of Professor Ames and Professor Wood, with the assistance of Dr. Whitehead.

In the Physical Seminary, papers on the following subjects were read and discussed:

Professor Bliss—The Theory of Corresponding States.
Dr. Whitehead—A series of papers on Conduction through Gases.
Mr. E. P. Hyde—The Theories of Photometry.
Mr. S. J. Allan—Radio-activity; the pressure due to Light.
Mr. J. Barnes—Standing Light-Waves; Measurement of Wave-lengths Absolutely.
Mr. H. D. Hill—Measurement of the Ratio of Specific Heats; Polarization Apparatus.
Mr. H. W. Springsteen—History of Heat Instruments; Color and Polarization of the Sky.
Mr. H. S. Uhler—Laws of Absorption of Light; Theory of the Spectroscope.
Mr. J. T. Porter—Age of the Earth; History of Optical Instruments.
Mr. R. E. Loving—Measurement of High Temperature; The Value of Absolute Zero.
Mr. T. S. Elston—Radiation of a Black Body; Theory of the Spectroscope.
Mr. L. G. Iloxton—The Nature of White Light.
Mr. A. H. Pfund—The Theory of the Arc Discharge; Methods of Ionization of a Gas.
Mr. J. A. Anderson—The Explanation of Rainbows and Halos.

Fifteen advanced students have followed Physics as their principal subject, and three of these have absolved the requirements for the degree of Doctor of Philosophy. Their names and the titles of their dissertations are as follows:

Mr. James Barnes—On the Structure of Bright Spectrum Lines.
Mr. H. D. Hill—Methods of Measurement of Self-Inductance.
Mr. H. W. Springsteen—Rotatory Dispersion of Sodium Vapor.

Other investigations now in progress in the laboratory or completed during the year are:

1. A study of the spectrum of magnesium, by Mr. J. Barnes.
2. A study of the gamma rays emitted by radium, by Mr. S. J. Allan.
3. A study of the ionization of the air in the physical laboratory, by Mr. S. J. Allan.
4. A critical study of absorption and fluorescence of a great number of dye stuffs, by Mr. H. S. Uhler.
6. A study of the electric arc at extremely low pressures, by Mr. R. E. Loving.
7. An investigation of the accuracy of certain laws of photometry, by Mr. E. P. Hyde.

Dr. J. B. Whitehead, who has received an appropriation from the Carnegie Institution, has completed his investigation in regard to the magnetic effect of electric displacement currents and has begun another concerning the electrostatic effect due to the variation of the magnetic field.

Mr. L. E. Jewell has devoted considerable time during the year to keeping in order the three ruling engines of the laboratory and in super-
vising the ruling of gratings. As a result gratings of excellent quality are now being produced with much more regularity than in the past.

Professor Wood has devoted the entire year to a thorough study of the laws of dispersion of sodium vapor. He has been assisted in this by Mr. A. H. Pfund, a Carnegie Research Assistant. Professor Wood has also succeeded in producing more perfect specimens than ever before of diffraction color-photographs.

During the year Mr. Theodore Marburg has continued his annual gift of two hundred dollars for the purpose of buying books.

J. S. Ames,
Professor of Physics and Director of the Laboratory.

Chemistry

The lecture and class room instruction in Chemistry which has been given during the past year is indicated below:

By Professor Remsen:
The Chemistry of the Compounds of Carbon. Three times weekly, through the year.
Attendance: First half-year, 32; Second half-year, 32.
Meetings for reports on the Current Progress of Chemistry. Weekly, through the year.
Attendance: First half-year, 34; Second half-year, 34.

By Professor Morse:
Historical and Inorganic Chemistry. Twice weekly, through the year.
Attendance: First half-year, 32; Second half-year, 31.

By Associate Professor Jones:
Physical Chemistry. Three times weekly, through the year.
Attendance: First half-year, 16; Second half-year, 16.

By Professor Renouf:
General Chemistry for Undergraduates (Minor Course). Four times weekly, through the year, with weekly reviews by Mr. Winter.
Attendance: First half-year, 57; Second half-year, 57.

By Dr. J. E. Gilpin, Associate in Chemistry:
Inorganic Chemistry for Undergraduates (Major Course). Four times weekly, first half-year.
Attendance: 18.
Chemistry of the Compounds of Carbon for Undergraduates (Major Course). Four times weekly, second half-year.
Attendance: 18.

The number of students working in the laboratory was 116 during the first half-year, and 113 during the second. Thirty-eight of this number
were graduates, and thirty-four of these were following Chemistry as their principal subject.

Professor Remsen has directed the laboratory work in organic chemistry, and under his supervision Messrs. Bradshaw, Cobb, Doughty, and Hoffman have been engaged upon their dissertation work for the degree of Doctor of Philosophy. Dr. C. E. Waters has assisted Professor Remsen in the laboratory.

Professor Morse has had charge of the work in quantitative chemistry, and under his supervision Dr. Frazer and Messrs. Hall, Straus, and Taylor have been engaged in research.

Professor Jones has directed the work in physical chemistry, and under his guidance Dr. Getman and Messrs. Bassett, Carroll, and West have been occupied with the investigation of certain problems in physical chemistry.

The laboratory work of the undergraduates in the major course, and also the work in qualitative analysis, has been under the direction of Professor Renouf, who, with Mr. Winter, has been engaged during the year in investigating the reactions of certain inorganic compounds.

Dr. Gilpin, aided by Messrs. Bradshaw and Cobb, has directed the laboratory work of the undergraduates of the minor course. He has continued his work on a problem in electrolysis which was begun last year.

Professor W. A. Noyes, of the Bureau of Standards, has been a guest of the laboratory throughout the year and has continued here, aided by Mr. Taveau, the investigations which he began elsewhere.

Under grants from the Carnegie Institution to Professors Morse and Jones, Doctors Frazer and Getman have been engaged in the investigation of problems connected with osmotic pressure and with the lowering of the freezing points of concentrated solutions.

Five students have absolved the requirements for the degree of Doctor of Philosophy. Their names and the titles of their dissertations are given below:

H. P. Bassett.—Determination of the Relative Velocities of the Ions of Silver Nitrate in Mixtures of the Alcohols and Water, and on the Conductivity of such Mixtures.

C. G. Carroll.—A Study of the Conductivity of Certain Electrolytes in Water, Methyl and Ethyl Alcohols, and Mixtures of these Solvents.

H. W. Doughty.—Phenylsulphoneorthocarbonic Acid and Related Compounds.

E. S. Hall.—A Study of some New Semipermeable Membranes.

W. P. Winter.—An Investigation of Sodamide and of its Reaction Products with Phosphorus and with Phosphorus Pentachloride.

Volume XXX and XXXI of the American Chemical Journal have been issued during the academic year.

H. N. Morse,
Professor of Analytical Chemistry.
Geology

The Geological Laboratory was open daily during the year for the work of both advanced and undergraduate students. Lectures and class-room work were conducted as follows:

(a) General Geology, by Professor Clark, Dr. Shattuck, and Dr. Martin. *Four lectures and one afternoon in practical work each week throughout the year.*

(b) Economic Geology, by Professor Clark. *Two lectures each week throughout the year.*

(c) Systematic Paleontology, by Professor Clark and Dr. Martin. *One afternoon of laboratory work each week throughout the year.*

(d) Geological Physics, by Professor Reid. *Two lectures each week throughout the year.*

(e) Geological Field Methods, by Professor Reid and Associate Professors Mathews and Shattuck. *Two lectures each week for one-half year.*

(f) Mineralogy, by Associate Professor Mathews. *Four lectures and two laboratory exercises each week throughout the year.*

(g) Petrography, by Associate Professor Mathews. *Three lectures and two afternoons of laboratory work each week throughout the year.*

(h) Appalachian Structure and Economic Geology, by Dr. C. W. Hayes. *Six lectures in January and February.*

(i) Geological Conferences. *Weekly, throughout the year.*

*Original Work and Publications.* Original work was carried on by Professor Clark, in conjunction with several assistants, on various phases of Maryland geology, the results of which are appearing from time to time in the reports of the Maryland Geological Survey and other scientific publications. Professor Clark was also engaged in a general study of the Mesozoic and Cenozoic Echinodermata of the United States, in conjunction with Mr. M. W. Twitchell, a graduate student. He was also actively employed in the management of the State Geological Survey and State Weather Service and in the supervision of the publications of those two bureaus, both of which are carried on under the auspices of the university. He also continued his work as Commissioner on behalf of the State of Maryland in the supervision of the survey of the Mason and Dixon Line.

Professor Reid continued his glacial studies, with special reference to his visit to Mt. Hood and Mt. Adams during the summer of 1901, and has also advanced his monographic investigation of the Foron Glacier, Switzerland, on which he has been engaged for several years. A seismograph of the Milne type has been mounted, under the direction of Dr. Reid, in the basement of the geological laboratory and has recorded a large number of earthquakes during the past year, the characters of which are now being studied. Dr. Reid has also been put in charge of the study of all earth-
quake records received by the U. S. Geological Survey. As Chief of the Highway Division of the Maryland Geological Survey, Professor Reid has directed the work carried on by that division. Several of the counties of Maryland are annually spending portions of their funds for the permanent improvement of their roads, and this is now being done under the specifications and, in most cases, under the direction of the Highway Division.

Associate Professor Mathews was engaged as heretofore in the study of the various problems connected with the Piedmont belt of Maryland, his investigations still being mainly confined to the northern part of this area, where he has had the assistance of several of the graduate students of the department. Dr. Mathews was also engaged during much of the year as Assistant State Geologist in directing certain phases of the State Geological Survey work, and in editing the various publications of that bureau.

Associate Professor Shattuck was employed during the year in a study of the Miocene and Pleistocene deposits of the southern and eastern counties of the State, where he has had the assistance of Dr. B. L. Miller and several of the graduate students of the department. He has completed an important monograph on the Miocene formations of Maryland, which is now in press. In this work he had the cooperation, on the paleontological side, of Dr. Martin, Professor Clark, and other members of the Survey staff.

Dr. Fassig continued his detailed study of the climate of Baltimore and has practically completed his monograph on this subject, which will be printed as the second volume of reports of the State Weather Service. Dr. Fassig, as meteorologist of the State Weather Service, also carried on during the year a number of special studies, in addition to his regular work as Chief of the Baltimore office of the U. S. Weather Service.

Dr. Martin devoted the greater part of his time during the year to the work of the Maryland Geological Survey, and completed his report on the geology of Garrett county, as well as the areal mapping of the western part of Washington county. Dr. Martin was engaged, in conjunction with Professor Clark, in the preparation of a report on the coal deposits of Maryland, and with Dr. Shattuck in the study of the faunas of the Miocene. Dr. Martin spent the summer of 1903 in Alaska in charge of a party for the U. S. Geological Survey, and a portion of the year was spent in preparing for publication the results of his investigations.

Several other investigations were started by members of the department, which will result in later publications.

Excursions. Numerous excursions were made with the graduate and undergraduate students into characteristic areas in the Coastal Plain and the Piedmont Plateau as in former years. These excursions are regarded as an important adjunct to the class-room and laboratory work.

Scientific Societies. The fortnightly meetings of the Geological Society of Washington, as well as the meetings of the National Geographic Society,
were attended from time to time during the winter by the instructors and students of the department. By the courtesy of the Geological Society of Washington the graduate students of the geological department are elected to non-resident membership in that body.

Cooperation. Active cooperation was maintained, as in the past, with the chiefs of several of the National and State bureaus. The coöperation of the U. S. Geological Survey, through its chief, Hon. Charles D. Walcott, and of the U. S. Weather Bureau, through its chief, Professor Willis L. Moore, has been of much importance to the work of the department. Mr. C. W. Hayes, of the former organization, and Professor Cleveland Abbe, of the latter, were granted the opportunity of giving lectures to the students in geology. Dr. L. A. Bauer was also permitted by the Superintendent of the U. S. Coast and Geodetic Survey to give lectures on the subject of Terrestrial Magnetism.

Apparatus and Collections. Several valuable additions have been made to the apparatus and collections during the year. The library has been considerably enlarged by gifts of books and maps.

WM. BULLOCK CLARK,
Professor of Geology.

Zoology and Botany

During the past academic year the Biological Laboratory has been open for advanced and collegiate students, and lectures and class-room instruction have been given as follows:

By Professor Brooks:
Advanced Zoology. For graduate students. Three lectures a week in December, January, February, and March.
Meeting of graduate students for reports on the current literature of Zoology and Botany. (With Dr. Andrews and Dr. Johnson.) Weekly throughout the year.

By Dr. Andrews:
General Biology. Daily, to April 1.
Elements of Embryology. Twice a week, from April 1 to end of session.

By Dr. Barton:
Analysis of Plants. Twice a week, from April 1 to end of session.

By Dr. Johnson:
Morphology of Plants. For graduate students. Two exercises a week, from October to April.
Physiology of Plants. For graduate students. From October to April.
Johns Hopkins University Circular

Elementary Botany.  *Twice a week throughout the year.*
Botany (undergraduate elective).  *Twice a week, from January to April.*

Dr. Grave:
- Echinoderms.  *For graduate students. Five lectures in April.*
- Elementary Zoology.  *Twice a week throughout the year.*

**ADVANCED WORK IN ZOOLOGY AND BOTANY**

A fellowship was awarded to D. II. Tennent, who continued and completed his work on Gasterostomum, a trematode which is found as a parasite in the oyster. The Adam T. Bruce Fellowship was awarded, for the second time, to R. P. Cowles, who continued and completed his studies of Actinotrocha and Phoronis.

Among the researches which have been carried on in the laboratory during the year, the following are most worthy of notice: Dr. Grave has perfected his new method of rearing marine larvae, and he has made use of it in studying the development of isolated parts of the eggs and embryos of Ophiurans for the purpose of learning whether and how far the regions of the body are represented by definite regions in the egg or in the young embryo. The results of these experiments are now ready for publication.

Dr. Andrews, who has been engaged for several years in the study of the life-history of American crayfish, has completed, and is now preparing for publication an account of a part of his results.

Dr. Johnson, who has been engaged for two years in the study of the morphology and embryology of certain plants which throw light on general problems, has published an account of his investigations on Monoclea, and he has completed, and is now preparing for publication, a second memoir on the Piperaceae.

In 1889-90 I began memoirs on the life-histories of certain hydroid jellyfishes, but they have remained unfinished from lack of important stages, which, however, were found and studied at Beaufort last summer by S. Rittenhouse. One of these memoirs, on Turritopsis, is now complete and ready for publication, with six plates; and a second, on Stomatoca, is in preparation.

The following publications by investigators in the laboratory have appeared during the year:
- Note on the Spermatozoa of the Cray-fish, by E. A. Andrews.  (*Anat. Anzeiger.*)
- Note on the Preparation of the Blastoderm of the Chick, by E. A. Andrews.  (*Zeit. f. wiss. Mikros.*)
- Origin and Fate of the Body Cavities and Nephridia of Actinotrocha, with four figures, by R. P. Cowles.  (*University Circular.*)
- Origin and Fate of the Blood Vessels and Blood Corpuscles of Actinotrocha, with seven figures, by R. P. Cowles.  (*Zool. Anzeiger.*)

Some Experiments on the Growth of Oysters, by O. C. Glaser. \textit{(Science XVII.)}


Ontogeny, Regeneration, and Natural Selection, by O. C. Glaser. \textit{(Science.)}

Regeneration of Young Colonies in Pectinatella, by R. P. Cowles. \textit{(In Preparation.)}

Jamaica as a Location for a Tropical Botanical Station, by D. S. Johnson. \textit{(Science, August, 1903.)}

The Development and Relationship of Monoclea, by D. S. Johnson. \textit{(Botanical Gazette.)}

Some Plants which Entrap Insects, by F. Shreve. \textit{(Popular Science Mo.)}

Survey and Oecological Map of Cold Spring Harbor, by F. Shreve. \textit{(Pub. by Brooklyn Institute.)}

Life History of American Crayfish, by E. A. Andrews. \textit{(In press.)}

Phoronis architecta, its Anatomy, Development, and Breeding Habits, with sixteen plates, by R. P. Cowles. \textit{(In press.)}

The Larva of Fasciolaria tulipa, with six plates, by O. C. Glaser. \textit{(In press.)}

Experiments for the Promotion of the Oyster Industry of North Carolina, by Caswell Grave. \textit{(Bull. U. S. Fish Com.)}

The Life History of Gasterostomum, with eight plates, by D. H. Tenent. \textit{(In press.)}

The following are in preparation and nearly ready for publication:

- The Echinoderms of Beaufort, by Caswell Grave.
- On Rearing Marine Larvae, by Caswell Grave.
- The Life History of Turritopsis, with six plates, by W. K. Brooks and S. Rittenhouse.
- The Life History of Stomatoca, with three plates, by W. K. Brooks and S. Rittenhouse.
- Individual Development and Ancestral Development, an address delivered at the International Congress of Science and Arts, by W. K. Brooks. \textit{(In press.)}

In the Journal Club, the contents of some forty journals and new books on zoology and botany have been reported and discussed.

The degree of Doctor of Philosophy was conferred upon R. P. Cowles, whose dissertation is upon Phoronis architecta; upon O. C. Glaser, the sub-
ject of whose dissertation is Fasciolaria Tulipa; and upon D. H. Tennent, whose dissertation is entitled The Life History of Gasterostomum.

Printed copies of the dissertation of W. C. Coker have been presented to our library in conformity with our rules.

The dissertation of C. P. Sigerfoos, who received our degree of Doctor of Philosophy in 1897, and that of D. N. Shoemaker, who received it in 1902, have not yet been printed.

The Marine Laboratory of the U. S. Fish Commission, at Beaufort, N. C., was directed this year, as in previous years, by Dr. Caswell Grave, Associate in Zoology, and most of the graduate students in our laboratory accepted the invitation of the Commissioner, and spent the summer there in zoological research.

I desire to express my thanks to the Zoological Station at Naples for specimens of Salpa pinnata which were collected and preserved for me, and sent to me for embryological research, and to the U. S. Fish Commission for specimens of Pyrosoma which were collected and preserved for me in the North Pacific.

A friend who was once a student in our laboratory has given to us a complete equipment, made by Zeiss of Jena, for microscopic photography, consisting of a camera, a large microscope, and the Zeiss series of optical parts for photography.

WILLIAM K. BROOKS,
Professor of Zoology.

Physiology

The courses given in Animal Physiology during the last academic year are as follows:

By Professor Howell:

1. The physiology of nutrition and the special senses. Lectures and demonstrations. Four times a week from October to the Christmas recess.

2. The physiology of muscle and nerve and the central nervous system. Lectures and demonstrations. Three times a week from January to March 15.

3. The physiological journal club, composed of instructors and advanced students—one hour each week, for the presentation and discussion of current literature in physiology.

4. The Physiological Seminary, composed of the instructors and graduate students offering physiology as a subject for the degree of Doctor of Philosophy—one hour each week. Biographical papers were presented by the members covering the lives and periods of Gall, Flourens, Hales, and Magendie, and also three general papers dealing respectively with the physiology of muscle and nerve, heart and digestion, during the first half of the nineteenth century.
By Professor Howell, assisted by Drs. Dawson, Erlanger, and Martin.

A laboratory course in experimental physiology. *Five mornings from 10 a. m. to 1 p. m., during October, November, and December.*

By Professor Howell, assisted by Dr. Martin.

Special laboratory course in experimental physiology for graduate students in the Philosophical Department. *One afternoon weekly from January to June.*

By Dr. Dawson.

1. The physiology of circulation and respiration. *Three times weekly during March, April, and May.*

2. Laboratory course, as specified above.

By Dr. Erlanger.

1. The physiology of secretion, digestion, and nutrition. *Three times weekly during March, April, and May.*

2. Laboratory course, as specified above.

Mr. A. E. Guenther received the appointment of Fellow in Physiology and was in attendance in the laboratory throughout the year, engaged in the experimental work for his dissertation. He also took part in the work of the journal club and seminary.

The following publications by members of the staff and advanced students have appeared during the year: An experimental study of the rhythmic activity of isolated strips of the heart-muscle, by E. G. Martin (*American Journal of Physiology*, vol. xi). The inhibitory influence of potassium chloride on the heart, and the effect of variations of temperature upon this inhibition and upon vagus inhibition, by E. G. Martin (*American Journal of Physiology*, vol. xi). Observations upon the cause of shock, by W. H. Howell (*Contributions to Medical Research dedicated to V. C. Vaughan*; also *Proceedings of the Society for Experimental Biology and Medicine*).


The relation of blood-pressure and pulse-pressure to the secretion of urine and to the secretion of albumin in a case of so-called physiological albuminuria, by J. Erlanger and D. R. Hooker (*Proceedings of the American Physiological Society*, 1904). The relation between blood-pressure, pulse-pressure, and the velocity of blood-flow in man, by J. Erlanger and D. R. Hooker (*ibid.*). A study of the errors involved in the determination of the blood-pressures in man, by J. Erlanger (*ibid.*). The survival of irritability in mammalian nerves after removal from the body, by W. D. Cutter and P. K. Gilman (*ibid.*).
Other investigations that have been in progress during the year have not advanced far enough for the publication of results, and will be resumed during the coming academic session.

W. II. Howell,  
Professor of Physiology.

Greek

Under the direction of Professor Gildersleeve the advanced students of Greek have been organized into a Greek Seminary. According to the plan of the Seminary, the work is concentrated on some leading author or some special department of literature. During the past year the centre of work has been Greek Historiography.

In the Seminary proper, which met twice a week during the academic year, the first month was given up to a cursory reading of the third book of Herodotus in illustration of the lectures on the language and the historical methods of Herodotus, and the last month was occupied in like manner with a study of Polybius. During the rest of the time the work of the Seminary revolved about the criticism and interpretation of Thucydides. Special points were assigned to various members of the Seminary for development, and as auxiliary to the course the Director delivered twenty-seven lectures on Greek Historiography and gave an analysis of the critique of Thucydides by Dionysios of Halicarnassus.

Besides the Seminary course and the auxiliary work Professor Gildersleeve conducted twenty-three exercises in extemporaneous translation from Greek into English and English into Greek, held eighteen conferences on Hermeneutics and twenty on the Syntax of the Greek Cases.

Associate Professor Miller conducted readings twice a week in Thucydides (first half of the session); a course of lectures and practical exercises in Greek Palaeography (twice a week during the second half of the session); and a course in Greek Epigraphy (weekly through the year).

Dr. A. M. Soho conducted a course in modern Greek, weekly from November to May.

Undergraduate courses were conducted as follows:

Associate Professor Spieker:
  Dio Chrysostom; Gospel of St. Mark. *Twice weekly, first half-year.*
  Thucydides (book vii). *Three times weekly, first half-year."
  Lyric Poets; Sophocles, *Oedipus Tyrannus.* *Three times weekly, second half-year.*
  Lysias (books vii, xii). *Three times weekly, first half-year.*
Latin

The organization and plan of the Latin Seminary are similar to those adopted in the department of Greek. Each year special attention is given to some one leading department of the literature. The centre of work during the last session has been the Roman Satire. Under the direction of Professor Smith the Seminary met twice a week throughout the year. Critical and exegetical commentaries on given passages of the Roman Satirists, and papers founded upon various special investigations, were presented by the members in turn. The work of the Seminary was accompanied by a course of introductory lectures given by the Director upon Horace, Persius, and Juvenal.

Besides the Seminary course and the auxiliary work, Professor Smith lectured once a week throughout the year upon the History of Roman Satire. During the first half-year he also lectured once a week on the development of the Elegy as a department, in style, context, and form. Once a week during the second half-year the Epigram was dealt with in the same manner. He also conducted a Journal Club which met fortnightly to report and discuss recent publications and topics of general interest in the field of Greek and Latin philology.

Associate Professor Wilson lectured once a week throughout the year on Latin Epigraphy. This course was accompanied by a series of practical exercises on fac-similes, and several meetings were devoted to the interpretation of selected inscriptions and classes of inscriptions. He also met the advanced students each week throughout the year for the rapid reading of Horace, Persius, Juvenal, and the Metamorphoses of Apuleius.

B. L. Gildersleeve,
Professor of Greek.
Undergraduate courses were given as follows:

By Professor Smith:
- History of Roman Literature.  *Weekly through the year.*

By Associate Professor Wilson:
- Tacitus (selections).  *Two hours weekly, first half-year.*
- Apuleius, *Metamorphoses* (selections).  *Two hours weekly, second half-year.*
- Catullus; Roman Elegy (selections).  *Three hours weekly, first half-year.*
- Plautus; Terence.  *Three hours weekly, second half-year.*

By Dr. Barret:
- Livy, two books.  *Three hours weekly, first half-year.*
- Horace (selections).  *Three hours weekly, second half-year.*
- Cicero, *De Senectute; Nepos* (selections).  *Two hours weekly, first half-year.*
- Ovid (selections); Vergil, *Georgica.*  *Two hours weekly, second half-year.*
- Prose Composition (three classes).  *Three hours weekly, through the year.*

Undergraduates read privately for examination the following books:
- Tacitus, *Agricola.*
- Ovid, *Fasti* (selections).
- Vergil, *Aeneid,* books ix and xii.
- Quintilian, book x.
- Plautus, *Miles Gloriosus.*

*KIRBY FLOWER SMITH,
Professor of Latin.*

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**Sanskrit and Comparative Philology**

The library of the Seminary has been increased during the year by a special and important gift. Mrs. Anna Booth Stratton has presented to the university the collection of her late husband, Professor Alfred William Stratton (Ph. D., 1895). Dr. Stratton, at the time of his death, held the responsible dual position of Principal of the Oriental College and Registrar of the Punjab University at Lahore, India. The collection consists of nearly 400 volumes; it is kept apart in the Sanskrit Seminary under the name 'Stratton Memorial Library.' At the same time a number of valuable Sanskrit manuscripts in Çarada character were presented by Mrs. Stratton to Professor Bloomfield; they increase the small collection of Sanskrit manuscripts which are accessible to students in Baltimore. A brief account of Professor Stratton’s career is published in *American Journal of Philology*; xxiii, 351-3.
During the session of 1903–04 the Vedic Seminary was engaged in the study of the Atharva-Veda, the Veda of private antiquities and popular customs. This study has always held a peculiar position in this university. A considerable part of the total work on this Veda has been done here. It began with Bloomfield’s edition, in 1890, of the Kāuçika-Sūtra of the Atharva-Veda, and continued with contributions to the interpretation and literary history of this Veda by Bloomfield, Fay, Goodwin, Hatfield, and Magoun. Then came in 1897 Bloomfield’s translation, with commentary, of the most important parts of the Atharvan, forming volume xlii of the ‘Sacred Books of the East,’ published by the Clarendon Press under the editorship of the late Professor Max Müller. This was followed in 1899 by a volume from the same pen on the history and literature of the Atharvan, entitled ‘The Atharva-Veda and the Gopatha-Brāhmaṇa’ (Strassburg, Trübner). In 1901 appeared the chromophotographic reproduction, in three quarto volumes, of the Kashmirian Atharva-Veda (the Veda of the Pāippalādas), reproduced from the unique Tübingen birch bark manuscript, under the editorship of Professors Bloomfield and Garbe, the latter of Tübingen. Dr. L. C. Barret has ready for the press a transcription and elaboration of the first book of this Veda.

Advance sheets of Professor Whitney’s posthumous translation, with critical apparatus, of the vulgate version of the Atharva-Veda were accessible to the Seminary by the kindness of the editor, Professor Lanman, of Harvard University.

An elementary course of Vedic study was carried on during the second semester. Its object was to introduce into the dialect of the Vedas and to mark out its relation to Classical Sanskrit. A preliminary study of Vedic grammar was followed by the interpretation and analysis of selected hymns of the Rig-Veda.

To the study of Classical Sanskrit were given four hours a week during the first semester, and two during the second. The subjects were readings from the Nala, Hitopadeśa, and Kathāsaritsāgara, including the regular beginners’ course of two hours a week during the session. The latter is the formal introduction to the study of Sanskrit, as well as of the Comparative Grammar of the Indo-European languages. Dr. Barret assisted in both courses.

The work in Comparative Philology was three-fold. I would note, first, a substantial and enthusiastic class in Lithuanian, who were introduced into the Comparative Grammar and the literature of that language. This work will be continued during the coming session (1904–05).

A course in General Comparative Philology began with a sketch of the linguistic ethnology of the Indo-European peoples, dealing with their ethnic interrelations, their early geography (the so-called Aryan question), and the beginnings of their religions. Then came in brief survey sketches of India, the Vedas, Brahmanism, Buddhism; Iran, the Achemenidan
inscriptions, the Avesta and Zoroaster’s religion; followed by similar sketches of the European peoples. The course was concluded with lectures on the principles of Linguistic Science.

A course in the Comparative Grammar of the Indo-European languages dealt with the history of the noun-suffixes, with particular reference to Greek, Latin, Teutonic, and Sanskrit.

MAURICE BLOOMFIELD,
Professor of Sanskrit and Comparative Philology.

Oriental Seminary

In the Oriental Seminary under the direction of Professor Haupt, twenty-nine courses in the various departments of Oriental research were given during the past year, special attention being paid to the interpretation of the Bible as well as to Oriental History and Archaeology.

Fourteen hours weekly during the first half-year, and fifteen hours weekly during the second, were devoted to the study of Hebrew and the Old Testament. In the Old Testament Seminary, Professor Haupt gave, two hours weekly through the year, a Critical Interpretation of the Book of Ecclesiastes, with special reference to the poetic form of the Book, and the restoration of the original arrangement of the text. Professor Haupt also conducted a series of weekly exercises in Hebrew Prose Composition, the students translating idiomatic English sentences into Hebrew. The Ancient Versions of the Book of Ecclesiastes (Greek, Latin, Syriac, Aramaic) were studied in a course conducted by Associate Professor Johnston, Dr. Blake, and Dr. Foote. Dr. Rosenau met, through the year, a class for the reading of Unpointed Hebrew Texts, besides conducting a course in Post-Biblical Hebrew, two hours weekly through the year. Dr. Blake gave a series of lectures on Hebrew Syntax through the year, and on Hebrew Phonology, during the second half-year; he also conducted the Second Year’s Course in Hebrew. The instruction in Elementary Hebrew was given by Professor Haupt and Dr. Foote, two hours weekly through the year. Dr. Foote also gave a course of lectures on the Literature of the Bible, on the basis of the Authorized Version.

Associate Professor Johnston lectured on the History of the Ancient East, through the year, on the Historical Geography of Palestine, during the first half-year, and on the History of Israel, during the second half-year. Dr. Rosenau gave a series of lectures on Jewish Ceremonial Institutions during the first half-year.

Professor Haupt conducted a course in Comparative Semitic Grammar, with special reference to the structure of the verb.
In *Biblical Aramaic*, Dr. Blake interpreted the Aramaic portions of the Book of Daniel, special attention being paid to a minute grammatical analysis of the text.

In *Syriac*, Professor Johnston met a class for the reading of selected texts in Rödiger’s *Chrestomathy*.

In *Arabic*, Professor Haupt conducted weekly exercises in *Prose Composition*, while Professor Johnston met a class for the reading of extracts from *Arabic Geographers*, besides giving a course in the reading of *Unpointed Arabic Texts*. The instruction in *Elementary Arabic* was given by Dr. Blake.

In *Ethiopic*, an elementary course was conducted by Dr. Blake, the class reading selections from the Book of Genesis and the Psalter.

Six hours weekly through the year were devoted to the study of *Assyriology*. Professor Haupt explained the *Babylonian Nimrod Epic*, and interpreted selected *Sumerian Hymns* and *Penitential Psalms*. He also conducted weekly exercises in *Assyrian and Sumerian Prose Composition*, the students translating Hebrew and Arabic sentences into Assyrian, and cuneiform Assyrian into Sumerian. Under the guidance of Professor Johnston, a class met, two hours weekly through the year, for the study of *Assyrian Historical Texts*, while Dr. Foote conducted a course in *Elementary Assyrian*.

In *Egyptology*, Professor Johnston gave a course in *Hieroglyphic Egyptian*, and also conducted a class for the study of *Coptic*.

In *Philippine Languages*, Dr. Blake gave an advanced course in *Tagalog*, the principal language of the island of Luzon, through the year, and an elementary course during the second half-year. He also conducted an elementary course in *Bisayan*, the language of the Bisayan Islands, between Luzon and Mindanao.

As Delegate of the United States Government, the American Philosophical Society, and the Johns Hopkins University, Professor Haupt attended the Fourteenth International Congress of Americanists, held at Stuttgart, August 18-23, 1904. He also represented the United States Government, the Smithsonian Institution, the United States National Museum, and the Johns Hopkins University at the Second International Congress for the History of Religions, held at Basle, August 30-September 2, 1904. His paper on the religious views of Ecclesiastes, which he read at one of the general meetings of the Congress, has since been published by J. C. Hinrichs, of Leipzig, under the title *Kohelet oder Weltanschauung in der Bibel*.

The second part (pp. 149-231) of the fifth volume of the *Contributions to Assyriology and Comparative Semitic Grammar*, edited, with the co-operation of the Johns Hopkins University, by Professor Haupt, in conjunction with Professor Friedrich Delitzsch, of Berlin, appeared at the beginning of the session. It contains the Arabic text and a German translation, with elaborate critical and explanatory notes, of the poems of *al-Mutalammis* (about 560 A. D.) by Professor Vollers, of Jena. The third part of the fifth volume, containing a number of valuable papers by Ungnad, Bork, Hüsing,
Friedrich, Hehn, etc., and Professor Haupt's critical edition of the Hebrew text of the Book of Ecclesiastes, is in press.

The sixteenth volume (part 9) of the critical edition of the *Sacred Books of the Old Testament*, published under the editorial direction of Professor Haupt, was issued at the end of the session. It contains (pp. 1-59) the Hebrew text of the Books of Kings, printed in ten colors, by Professors Stade and Schwally, of the University of Giessen, with elaborate critical notes (pp. 60-309) by Professor Stade and numerous additions by the General Editor.

The dissertation of Dr. Blake on the *So-called Intransitive Verbal Forms in Semitic.—Part 1: Hebrew*, appeared at the beginning of the session.

Mr. Aaron Ember, Fellow in Semitic, presented himself as candidate for the degree of Ph. D., at the end of the session. The dissertation was entitled *The Pluralis Extensivus*, and the subjects of the candidate were Hebrew, Assyrian, and History of the Ancient East.

At the meeting of the Society of Biblical Literature, held in New York, December 31st, 1903, Professor Haupt read three papers: (a) The Mosaic Nucleus of the Song of the Sea (Exod. xvi), published in the April number of the *American Journal of Semitic Languages*; (b) The Poor and Wise Child (i.e., Alexander Balas, 150-145 B.C.) in Eccl. 4, 13; (c) The Rebellion of Zerubbabel.

At the annual meeting of the American Oriental Society, held in Washington, April 1904, fifteen papers were presented by members of the Oriental Seminary: Professor Haupt: (a) The Introductory Lines of the Cuneiform Account of the Deluge, (b) The Prototype of the Magnificat, (c) The Poetic Form of the Book of Ecclesiastes, (d) The Hebrew Text of the Book of Kings;—Associate Professor Johnston: (a) Šamaš-šum-ukin, the Oldest Son of Esarhaddon, (b) Erman's Egyptian Grammar;—Dr. Blake: (a) Intransitive Verbs in Aramaic, (b) Differences between Tagalog and Bisayan;—Dr. Foote: (a) The Fall of Nineveh, (b) The Cherubim and the Ark;—Mr. Seiple: (a) Polysyllabic Roots in Tagalog, (b) The Eighty-seventh Psalm;—Mr. Ember: The Amplificative Plural in Assyrian;—Mr. Wolfenson: (a) Grecisms in Ecclesiastes, (b) Philippine Alphabets. Professor Haupt's paper on the Chaldean Flood Tablet as well as Professor Johnston's and Dr. Blake's papers are published in vol. xxxv of the *Journal of the American Oriental Society*; Professor Haupt's paper on the Prototype of the Magnificat appeared in the *Journal of the German Oriental Society*, vol. Iviii, pp. 617-632.

Before the University Philological Association, members of the Oriental Seminary read the following papers: Professor Haupt (Dec. 18): Moses' Song of Triumph; Professor Johnston (Oct. 16): Ptolemaic Portraits; Dr. Foote (Jan. 16): The Philological Study of the Bible.

Dr. Frederick J. Bliss, late field-officer of the Palestine Exploration Fund, gave six lectures in February on the Archaeology of Palestine. The sub-
jects of the lectures were: (1) General Sketch of Palestine Exploration; (2) Jerusalem and its Monuments; (3) Excavations at Jerusalem; (4) The Question of Calvary and the Tomb of Christ; (5) Excavations in the Mounds; (6) The Pre-Roman Pottery of Palestine.

Dr. George Steindorff, Professor of Egyptology in the University of Leipzig, gave five lectures, in March, on the Religion of Egypt, as follows: (1) The Egyptian Religion in the Oldest Period; (2) The Development of the Egyptian Religion; (3) Temples and Ceremonies; (4) The View concerning Life after Death; (5) Graves and Burials. The Egyptian Religion outside of Egypt.

The library of the Oriental Seminary was increased by the latest publications on Semitic languages and Biblical Literature, as well as by a number of books on Malay and Philippine dialects. As in previous years the majority of the Semitic accessions were presented by the late Mr. Leopold Strouse, of Baltimore, who also made a special provision in his will for continuing his annual donations to the library.

PAUL HAUTF,
Professor of the Semitic Languages.

English

1. Advanced Courses.

The English Seminary was conducted by Professor Bright. The Seminary met, throughout the year, twice a week in sessions of two hours each. During the first half-year the pre-Shakespearean drama was studied. A detailed investigation of the religious drama was begun with the Regulæ Concordia of Ethelwold and continued to the rise of cycles of plays. The cycles were studied with reference to literary form and dramatic development, and in connection with them the popular forms of the various non-literary dramatic entertainments were reviewed. Special attention was next bestowed upon the Moralities and Interludes. Representative plays were studied in detail. The modes and the circumstances of the presentation of plays was considered historically. The introduction of classical subjects and plays was observed as a definite influence upon the native traditions. For illustration of the dramatic fashions which immediately preceded the Shakespearean manner, the principal plays of John Bale, John Heywood, George Peele, Robert Greene, Christopher Marlowe, Thomas Kyd, and John Lyly were read. During the second half-year the Seminary was directed in the study of epic poetry as represented in the Anglo-Saxon Gene-

Professor Bright met a class (once a week, first half-year) for the interpretation of a group of representative poems, and a consideration of the
principles of literary criticism. The *Mirror for Magistrates* was first interpreted with reference to its antecedents, and as marking the end of a literary fashion (Boccaccio, Chaucer, Laurence de Premierfait, Lydgate, with the help of the investigations of Emil Koeppel, Henri Hauvette, and W. F. French). The *Induction* and *Legend of Buckingham* were read, and interpreted in detail. The ‘continuations’ and the editions of the work were also considered. Marlowe’s *Hero and Leander* (with the help of Jellinek’s monograph) and Thomas Hoo’d’s poem on the same subject constituted the second division of the work. The third group of poems studied embraced the *Orchestra* and the *Nosce Teipsum* of Sir John Davies (in this connection use was made of E. H. Sneath’s *Philosophy in Poetry*). The final group of poems interpreted included Giles Fletcher’s *Christ’s Victorie and Triumph*, Phineas Fletcher’s *Purple Island*, and William Brown’s *Britannic’s Pastoral*.

During the second half-year (twice a week) Professor Bright conducted a class in the reading of selected plays from Shakespeare. The purpose of the course was to notice in the earlier plays the characteristic marks of less mature workmanship and of indebtedness to predecessors.

Professor Bright lectured, once a week throughout the first half-year, on the history of English versification.

The Journal Club of the English Seminary was conducted by Professor Bright. Sessions of two hours each were held on alternate Fridays throughout the year for reports of the current philological periodicals, reviews of new books, and the presentation and discussion of papers representing such independent investigations as were less directly connected with the concurrent work of the Seminary.

Professor Browne lectured, once a week during the second half-year, on the Arthurian cycle: the biographical romances and the discrete adventure-romances. Those which treat of Gawain were especially studied as showing most clearly the operation of transforming influences.

Professor Browne also lectured, once a week throughout the year, on Scottish Poets from Lindsay to Burns.

2. College Courses.

The English major class in Anglo-Saxon, using Bright’s *Anglo-Saxon Reader* as text-book, was met twice a week by Professor Bright.

Professor Browne met the English major class twice a week. One hour weekly was given to (a) the study of the Elizabethan Poets, especially Shakespeare, and to (b) the literature of the eighteenth century; and one hour weekly to readings from the Scottish Poets of the fourteenth, fifteenth, and sixteenth centuries, with accompanying lectures.

The English minor class was conducted by Professor Browne. The work consisted of readings of Early and Middle English texts (two hours a week), with Morris and Skeat’s *Specimens* as the text-book, and general English literature (two hours a week), with Arnold’s *Manual of English Literature*. 
A class in Rhetoric and English Composition met three times a week throughout the year. Until the ninth of November this class was taught by Professor Greene. The class was then divided, upon the basis of rank, into two sections; the second section was taught by Mr. Robert L. Ramsay. Theory was imparted by means of text-book (A. S. Hill's Principles of Rhetoric), lectures, and discussions; practice was obtained by the writing of about fifty short papers, of which a few from each set were read and criticised in the class-room, and by the writing of five essays, three of which (one in each term) were read and criticised privately with the writers. The weekly practice in writing was combined with an examination of the usage of standard writers. Each member of Section A made a careful study of the style of one prose author (in most cases of a nineteenth century author), and presented the results of his study in a series of short papers. The class-work included a study of representative passages of narration (Brewster's Specimens of Narration). The members of Section B made a careful study of specimens of standard prose, as contained in Brewster's Studies in Structure and Style and in Lewis's Specimens of the Forms of Discourse, and presented a series of short papers containing the results of their study. The members of both sections read the poems contained in Palgrave's Golden Treasury of Songs and Lyrics, and wrote a series of short papers upon topics suggested by their reading.

Mr. Ramsay conducted, once a week, a class in English Composition, primarily to supply additional instruction for students in special need of further training. In addition to those who were required to follow the course, a number of students voluntarily improved the opportunity thus afforded them.

A class in English Literature met Professor Greene three times a week throughout the year. This class made a general survey of English Literature from the beginning to the Restoration. A detailed study was made of the works of Chaucer, Spenser, and Shakespeare. Of the writings of these poets, a considerable amount was studied critically in the class-room; and more was read by the members of the class in their private reading. In addition to the regular class-room exercises, five readings from the poems of Chaucer, one lecture (with illustrations) upon the portraits and busts of Shakespeare, and twelve lectures upon the dramas of Shakespeare, were given for the benefit of members of the class who desired to attend them.

An elective course in English Literature was given by Professor Greene, two hours a week, throughout the year. During the first half-year the study was centered upon the works of Dryden, Steele, Addison, Swift, and Pope; during the second half-year, upon the works of Wordsworth, Coleridge, Keats, Shelley, and Byron. In connection with the weekly lectures and discussions the members of the class did a large amount of private reading. Each student prepared and read before the class, during each half-year, a paper upon one of the principal writers studied.
3. Public Lectures on Literature.

The eleventh course of the Percy Turnbull Memorial Lectures on Poetry was given by Count Angelo de Gubernatis, Professor of Italian Literature in the University of Rome. The course consisted of nine lectures on *La Poésie Italienne*.

**JAMES W. BRIGHT,**
Professor of English Philology.

**WILLIAMHAND BROWNE,**
Professor of English Literature.

**HERBERT EVELETH GREENE,**
Collegiate Professor of English.

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**German**

The German Seminary, under the direction of Professor Henry Wood, met three times weekly through the year. During the first half-year Goethe’s *Faust* (the First Part) was studied. The work was first considered from the point of view of style, and as representing a new modern type of the drama. Questions connected with the origin and development of the Faust theme in Goethe’s mind and art were then taken up. The study of the Faust *Puppenspiele*, together with the statement made by Goethe in *Dichtung und Wahrheit* as to the theatrical pieces that interested him as a youth, led to an examination of the *Arlequin-Déwaleon* of Alexis Piron, written 1722 for the Fair of St. Laurent in Paris. The resulting comparison furnished a new point of view for the scope and importance of the monologues in Goethe’s *Faust*. Certain features of the whole First Part were seen to adhere with remarkable closeness to the type of the old German *Puppenspiel*, as modified by the *théâtres forains* in the first quarter of the eighteenth century in France. In connection with the Faust etching, prefixed by Goethe to the Fragment of 1790, the director of the Seminary also offered sundry conclusions as to the function of the magic mirror in the *Hexenküche*, and the nature of the vision of beauty there presented to Faust. A summary of these results was read before the University Philological Association at its November meeting, in a paper entitled Rembrandt in Goethe’s *Faust*.

During the second half-year, as originally planned and announced, the Seminary was to have studied the Courtly Lyrics of the twelfth and thirteenth centuries (the German Minnesong). But, in accordance with a collective request of the members of the Seminary, the Second Part of Goethe’s *Faust* was substituted for the present year. The plan of study pursued was in every respect similar to that of the First Part, and included detailed consideration of the extant plans and sketches and of the para-lipomena.
German

The Germanic Society, which is composed of the director of the Seminary and the instructors and graduate students in German, held twelve meetings during the year in an afternoon session. Besides reviews and reports, the following papers were read, some of them presenting completed investigations, and others giving preliminary results of studies still in progress: accent in Otfrid's verse, with special reference to words in rime-position; identical rime as an element in Otfrid's style; two variant copies of Ulrich Boner's Edelstein, as printed by Albrecht Pfitzer; methods of early German printers; some German etymologies; the type of Kindermörderin in the drama of the eighteenth century; Goethe's Faust and Klinger; the monologues in Goethe's Faust; notes on the German elegy of the eighteenth century; the relation of the Unterhaltungen Deutscher Ausgewanderten to Hermann und Dorothea; the first edition of Grimm's Kinder- und Hausmärchen.

Professor Wood gave, in addition, the following graduate courses:

1. Old High German. Twice weekly, first half-year. The work fell under three groups: the shorter poems of the ninth century, of the type and style of the Ludwigslied; the introductions and biographical portions of Otfrid's Christ; and Ezzo's Gesang. In connection with the first two groups, the contemporary accounts of literary production in the monasteries of both Ost- und Westfranken were scanned, while Ezzo's Gesang led to some study of the literary expression of religious thought in German poetry of the eleventh century.

2. Gothic and the Elements of Comparative German Grammar. Twice weekly through the year. Brune's Gotische Grammatik was studied, after which parts of Ulfilas were interpreted, with Bernhardt's larger edition as a basis. Kluge's Vorgeschichte der altgermanischen Dialekte was read in part, and was accompanied by practical exercises designed to illustrate the principle of sound-change and word-formation for the several Teutonic languages.

3. The Beginnings of Modern German Classicism. Twice weekly, second half-year.

Klopstock and Wieland were chosen for special study, not only as being the most important German poets of the third quarter of the eighteenth century, but also as presenting the most marked contrasts in style and method. The study of Klopstock centred in the Odes, while Wieland's early pieces, beginning with Musarion, were compared with the finished art of his Oberon. The attempt was made to trace in detail the influence of both authors on Goethe, that of Klopstock in the freer style and expression of Goethe's early poems, and the more formal influence of Wieland upon Goethe's employment of the 'stanza' and the madrigal style of metrical paragraph.

In the undergraduate major course, Professor Wood conducted a class in Goethe's Faust and Schiller's Wallenstein, twice weekly through the
year. The third part of the trilogy, Wallenstein’s Tod, was assigned as private reading. In the minor course A, he conducted weekly exercises in German prose composition.

Associate Professor Vos gave an Introductory Course in Middle High German, twice weekly during the first half-year. The phonology, inflection, and syntax were studied at the hand of Paul’s Mittelhochdeutsche Grammatik, and selections were read from Bachmann’s Mittelhochdeutsches Lesebuch. During the second half-year, these readings were continued weekly in the epic poetry of Hartmann von Aue.

He also gave a course, twice weekly during the first half-year, in Gottfried von Strassburg’s Tristan und Isolde. The larger part of this epic was read and discussed in class. The various questions centring around the saga, the poem and its French original, were also considered in the light of the most recent publications.

During the second half-year he also gave a course, twice weekly, in the History of the German Language. Behaghel’s article in Paul’s Grundriss der Germanischen Philologie, second edition, served as a handbook. The subjects of dialect divisions and Modern German vocalism received particular attention.

The following undergraduate courses were conducted by Associate Professor Vos:

History of German Literature (Major Course), with especial reference to the Classical Period. The text-book used was Robertson’s History of German Literature. Illustrative poems were read in von Klenze’s Deutsche Gedichte.

In the Minor Course A, the following works were read in class: Baumknoth, Sommermärchen; Goethe, Hermann und Dorothea; Schiller, Maria Stuart. Sudermann’s Frau Sorge was assigned as private reading.

In a new elective course (twice weekly through the year), designed primarily for students who have completed the Major, German Ballads were studied, during the first half-year, in Buchheim’s Balladen und Romane. During the second half-year, selections were read from Goethe’s Dichtung und Wahrheit.

Dr. Thomas S. Baker, Professor in the Jacob Tome Institute, gave a course of lectures, weekly through the year, on Contemporary German Literature. The period from the Franco-German war was treated in detail, special attention being given to the development and decline of naturalism. The French, Scandinavian and Russian influences upon German writers were considered at some length. While other literary forms were also examined, the contemporary German drama formed the chief object of study.

Dr. William Kurrelmeyer gave undergraduate and special courses, as follows:

Minor Course, Class B. Four hours weekly. Vos, Essentials of German; Gerstäcker, Germelshausen; Wilhelmi, Einer muss heiraten; von Wilden-
Elective Course. Two hours weekly. Readings in Contemporary German Literature: Sudermann, Frau Sorge; von Ebner-Eschenbach, Die Freiherren von Gemperlein, Krambambuli; von Wildenbruch, Harold, Das edle Blut, Der Letzte.

Scientific German Readings. Two hours weekly. Brandt and Day, German Scientific Reading (120 pp.); Walther, Allgemeine Meereskunde (75 pp.).

Historical Readings. Two hours weekly. Kron, German Daily Life (80 pp.); Schönsfeld, German Historical Prose.

German Conversation. Weekly. Kron, German Daily Life, was used as a basis. This course is primarily intended for undergraduates who have completed the German Minor Course A.

Mr. Julius Hofmann conducted, in the major course, weekly exercises in prose composition. He also met a class of graduate students, twice weekly, for oral exercises in German. The instruction in this course began with a drill in phonetics and advanced to the memorizing of idiomatic phrases, the consideration of synonyms and cognate roots, accentuation in prose sentences and in verse being studied towards the end of the year.

HENRY WOOD,
Professor of German.

Romance Languages

I. Graduate Courses:

Professor Elliott conducted advanced courses as follows:

Romance Seminary. Two hours fortnightly.

The work centered here on the Fables of Marie de France, the object of the course being to acquire a working knowledge of the fable literature of Antiquity and the Middle Ages; to become acquainted with the characteristics of the Norman and Anglo-Norman dialects, in which some of the more important manuscripts are written; to present the fundamental principles of text-criticism and text-constitution, for which two fables were examined. A clear view of the morphology and phonetics of language was obtained as contrasted with those of the Isle-de-France; likewise of the Old-French construction as compared with that of the Modern French.

In addition to this, special attention was paid to the stray fables occurring in the works of Romance authors in the Middle Ages, as well as to those occurring in the works of Vincent de Beauvais and his translators.

The object here was to give the student an introduction to the phonetics and morphology of Folk- and Low-Latin as the common basis for a scientific study of the Romance idioms.  Meyer-Lübke’s treatment of the subject in Gröber’s *Grundriss der romanischen Philologie* was taken as the starting-point for this work, in connection with which lectures were given, contrasting the popular forms with the historic development of the classical forms.


The object of this organization, to which all members of the Romance department belong, is to foster a common interest in everything that concerns the study of the Romance idioms.  Reviews of important journal articles, papers on original investigations, discussions of literary and scientific subjects, reports of correspondence of a professional nature, represent the chief exercises that claim the attention of the club.


The dialects especially considered were the Isle-de-France, Norman, Picard, and Walloon groups.  The method of work was, to a great extent, practical, and had in view a sufficient acquaintance with dialect forms to enable the student to discriminate Old-French texts belonging to these different idioms.  To this end the leading characteristics of the old and the modern dialects were presented in a few lectures; then, through the use of early and later texts, the student was required to recognize and name the dialect features as they occur in the respective texts.

Lectures on Dante.  *Weekly.*

The object of this course was to give the student a survey of the Dante science of to-day.  In a few introductory lectures he was made acquainted with the leading philosophical and literary tendencies of Dante’s time, the *Inferno* and *Purgatorio* doctrines before the author’s epoch.  The *Inferno* and *Purgatorio* were analyzed and presented in detail, both with reference to the previously existing ideas of punishment and recompense and to those peculiar to Dante.


The work was concentrated on the *Blislawet*, which was carefully examined, from the historical-literary point of view, in reference to other works and traditions on lycanthropy.  About one-third of this *lai* was also exhaustively studied in reference to Old-French syntax, as compared with that of the *Fables* of Marie de France and with the Modern-French sentence construction.

Twenty lectures on the mediaeval poems relating to Tristan, Arthur, and the Holy Grail were given in December by Professor F. M. Warren.  Besides the study of the growth of the legends from the first allusions to them in Latin literature through the French lays to the longer poems of
Chrétien de Troyes and his successors, an object of the course was to show how the cycle reflected the ideals of French society.

A course of six lectures, also by Professor Warren, on Medieval French Drama, traced its origin on the liturgical side from the Latin church tropes to the popular mysteries of the fifteenth century. The various kinds of comedy of the Middle Ages were also indicated, together with their relations to the life of the time.

Associate Professor Marden conducted the following courses:

Spanish Seminary. Weekly.

The work consisted in a study of the Libra d'Apolonio based on a copy of the Escorial manuscript. The students investigated various questions concerning the phonology, morphology, syntax, and metre of the poem, presenting the results of their investigations in the form of reports. Special attention was paid to the Aragonese elements in this thirteenth-century epic. Finally, the students made practical application of the results obtained, by constructing a critical text for sixty stanzas of the poem.

Spanish Historical Grammar. One hour fortnightly.

Owing to the fact that all the students had taken this course in previous years, a fortnightly quiz was substituted for the regular lecture course. The students reviewed specific portions of the work for each meeting and the hour was occupied in discussing various difficult or unsettled problems connected with Spanish Historical Grammar.

Old-Spanish Readings. Weekly.

The aim of this course was to give the students a reading knowledge of Spanish of the twelfth, thirteenth, and fourteenth centuries. In addition to selections in Gorra's chrestomathy, the class read Morel-Fatio's Textes castillans inédits du XIIIe siècle, El Misterio de los Reyes Magos, Poema de Fermán González, and about one hundred stanzas of Juan Ruiz' Cantares.

The Spanish Drama of the Seventeenth Century. Weekly.

The first two lectures were devoted to a survey of the bibliography of the Spanish drama; the general and special treatises on the drama were exhibited in the lecture-room and the characteristic features of each book or collection were emphasized. Special attention was paid to three important factors in the development of the Drama in Spain, namely, the Inquisition, Gongorism, and the choice of Madrid as the capital of the kingdom. Then followed a discussion of Lope de Vega's position in the drama and his influence upon such writers as Tirso de Molina, Alarcón, etc. The course closed with a description of the Spanish stage in the middle of the seventeenth century.

Associate Professor Armstrong conducted the following courses:

French Phonology and Morphology. Three hours weekly.

Old-French sounds and inflexions were studied with reference to their
historical connection with Folk-Latin and with Modern French. A portion
of the time was employed in the application of materials and methods em-
bodyed in the lectures to the text of La Vie de St. Alexis.

French Syntax. Two hours weekly.
In continuation of the courses of the two preceding years, which had
included a discussion of substantive, adjective, and pronoun, the lectures
were devoted to the French verb, which was studied from the historical and
comparative standpoint.

A brief view of general principles and of existing phonetic schools was
followed by a description of the organs of speech and a detailed examination
of the mode of formation of French sounds. In conclusion practical exer-
cises in pronunciation were given.

Readings in Old-French Literature. Weekly.
It was the aim of this course to furnish an introduction to the subject and
to equip students for reading Old-French texts with some facility and ac-
curacy. The texts read included Aucassin et Nicolette, La Chastelaine de St.
Gille, Le Chevalier au Barisel, and portions of La Chanson de Roland and of
L'Histoire de St. Louis.

Associate Professor Ogden conducted the following courses:
Romance Seminary : Literature. Two hours fortnightly.

The subject of this work was the development of the French drama in the
nineteenth century, this being a continuation of the subject of the eighteenth
century treated the year preceding. The object of the course was to make
the student familiar with this important feature of French letters, to give
him practice in treating material and ease in presentation. There is always
the danger that work of this sort may become mere mechanical compilation
and every effort was made to stimulate originality of thought and to encourage
individual expression. Special contributions were made by the members of
the Seminary which were read and criticized before the entire number.

Lectures on the Tragedy in the sixteenth century and the development
of the Classic Drama.

The subject of these lectures was the growth and development of French
Tragedy from the earliest evidences of drama down to the performance of
The Cid. The evolution of the Mystery play from the trope, and the change
of performer from clergy to laity, with the development of the unities from
the freedom of the mediæval composition, was the substance of the matter
treated. Special attention was given to Garnier and Hardy, as illustrative
of certain important features in this development.

Lectures on the Rise and Development of Lyric Expression in French
Verse. Weekly.

The object of the course was to characterize the lyric expression of French
genius and examine the various forms under which it has found voice, noting as well the foreign influence brought to bear upon the same. The earliest evidence of lyric feeling was presented and the sources of its inspiration. The various modifications of the genre were traced to the Renaissance with ample illustration, and the reforms of Ronsard were discussed. The school of Malherbe and Boileau were commented on to furnish the classic standard. The eighteenth century, as a period of gestation, was considered in its relation to the florescence of the period following, of which certain conspicuous and characteristic lyric features were studied in their connection with preceding causes. The aim was not to study French versification but to appreciate the moulding spirit which lies behind the lyric flow.

Old Provençal Readings. Weekly.
The object in this course was to gain some familiarity with the literature of the golden age of Provence and to translate into English thought these tortuous processes of the thirteenth century. As a mental training and encouragement to precise thought and expression, this is most valuable. The book used was Appel’s Provenzalische Chrestomathie.

Dr. Keidel conducted the following courses:
Romance Methodology. Weekly, first half-year.
The general principles of cataloguing, proof-reading, original investigations, library research, and bibliography were explained and fully illustrated by numerous concrete cases of actual personal experience, while special stress was laid on the methods to be employed in the preparation of a dissertation and the writing of book-reviews.

Medieval Sources. Weekly, first half-year.
The distinctions existing between the fields of epigraphy, diplomatics, paleography, and incunabula were carefully explained, and the leading principles involved in the study of the last-mentioned branch of the general subject were explained at some length. Throughout this course the French point of view was made prominent, while Italian and Spanish works were mentioned incidentally.

Romance Palæography. Weekly, second half-year.
A short and succinct account was given of the various schools of writing developed on Romance territory during the Middle Ages, followed by practical exercises in the deciphering of facsimiles of Old-French manuscripts. This course was intended to fit students for the real work of copying Medieval manuscripts in the great European libraries.

Manuscript Sources. Weekly, second half-year.
The importance of manuscripts as repositories of the literary productions of preceding ages was emphasized, and practical exercises based on library catalogues and collections of facsimiles undertaken, while special attention was paid to the hagiographical material of the Middle Ages by way of illustration from a concrete case.
Dr. Shaw conducted the following courses:

Italian Seminary. Weekly.
The first part of the year was spent on the interpretation of the Carta Capunana, and on reconstructing the text where it is lacking in the document. In the interpretation, works on Lombard political and juridical history, and documents similar to the Carta and near to it in time, were consulted. The second part of the year was given to the study of the Italian formula. Texts of old Neapolitan and kindred dialects were searched for forms illustrating those in question. The material for this work was collected by the seminary during the previous year.

Italian Phonology and Morphology. Two hours weekly.
Lectures and oral examinations on the development of the vowels, consonants, and word-forms. The Grammar of Meyer-Lübke, edited by Bartoli and Braun, was used as text-book, with constant reference to other works and periodicals dealing with linguistics.

Italian Prose of the 13th Century. Weekly.
Lectures classifying and analyzing the most important specimens of early prose literature,—from Guido Fava to Giovanni Villani.

Readings in Dante. Weekly.
The Inferno was read and interpreted, references in the text explained, linguistic peculiarities pointed out, and the state of opinion on disputed points outlined.

Dr. Brush conducted the following courses:
The subjects in this course were selected with reference to Professor F. M. Warren's annual lectures on Old French Literature. The class read the following texts: Chrétien de Troyes: Erec et Enide, Le Chevalier as deus Espèce; and selections from Bartsch's Romanzen und Pastourelle.

The object of this course, continued from the past year, is to insure in the student a first-hand knowledge of the masterpieces of French literature. The period studied included part of the seventeenth century and the eighteenth. Selections were read from the works of Voiture, Mme de Sévigné, La Fontaine, Descartes, Pascal, La Rochefoucauld, Bossuet, La Bruyère, Voltaire, Rousseau, Marivaux, Diderot, and Beaumarchais.

II. Undergraduate Courses:
Dr. Brush conducted the following courses:
French: Major Course. Four hours weekly.
The work in this course consisted of translation of French into English, of exercises in composition, and of lectures and recitations in French on the history of French literature. The following texts were read: Hugo: La Chute; De Musset: On ne badine pas avec l'Amour and Fantasio; Gautier:
Jettatura; Canfield’s French Lyrics; Rostand: Les Romanesques; Daudet: Tartarin de Tarascon; Corneille: Cinna; Racine: Phèdre; Molière: Le Médecin malgré lui, Les Femmes savantes, Tartuffe; Warren’s French Prose of the XVIIth Century; Voltaire: Le Siècle de Louis XIV, Candide. The following works were used for composition: Grandgent’s French Composition; Kron’s French Daily Life; for literature: Pellissier: Précis de l’Histoire de la Littérature française.

French: Minor A. Four hours weekly.

This is a second-year course in French literature and composition designed to enable the student to translate smoothly from French into English and to write simple French prose. The texts used in the class were as follows: Dumas: Les Trois Mousquetaires; Augier: Le Fils de Giboyer; Daudet: Contes; Balzac: Scènes de la Comédie humaine; Bowen’s Modern French Lyrics; Corneille: Cid; Racine: Andromaque; Molière: Le Bourgeois Gentilhomme; Les Précieuses ridicules; Hugo: Hernani. For private reading: Daudet: La Belle Nivernaise; Fortier’s Histoire de France; Lamartine’s Scènes de la Révolution française. The work in grammar and composition was based on Fraser and Squair’s French Grammar Part II, and on Kimball’s Exercises based on La Belle Nivernaise. The gramophone method of the United States School of Languages was used in the work on pronunciation.

French: Elective Course. Two hours weekly.

This is an advanced course for the rapid reading of French texts. Weekly practice in composition is also required. The class read: About: La Mère de la Marquise; Balzac: Eugénie Grandet; Loti: Mon Frère Yves; Corneille: Horace; Rostand: Cyrano de Bergerac; France: Le Crime de Sylvestre Bonnard. The composition was based on Storr’s Hints on French Syntax.

Associate Professor Ogden conducted the following course:

French: Minor B. Four hours weekly.

This course, above all, is aimed to prepare the student for an intelligent reading at sight, and is attended by candidates for the Doctor’s degree, who have this object in view, as well as by undergraduates. Comparatively little time is given to grammatical drill, but, as soon as practicable, the class is required to read easy prose. From this matter is drawn all needed illustration of points of grammar. The first term of the past college year was devoted to acquiring a fundamental knowledge of the language and easy prose. The remainder of the time was spent in reading French texts which were selected so as to increase in difficulty as proficiency was gained. Translation at sight was also considered important. The ground covered was: Fraser and Squair, French Grammar; L’Abbé Constantin, by L. Halévy; La Poudre aux Yeux, by Labiche and Martin; Mon Oncle et mon Curé, by J. De la Brète; Le Roi des Montagnes, by E. About.
Associate Professor Marden conducted the following courses:

Spanish: Minor Course. Four hours weekly.

After a few lessons in Ramsey's Spanish Grammar, reading was begun in Matzke's Spanish Reader. The class then read Alarcón, El Capitán Veneno; Pérez Galdós, Doña Perfecta; and portions of Cervantes, Don Quijote. Exercises in grammar and prose composition were continued throughout the first term.

Spanish: Elective Course. Twice weekly.

Edgren's Spanish Grammar was used for the rudiments of grammar and for work in composition. The class then read fifteen chapters of Isla, Gil Blas de Santillana, and Miguel Ramos Carrión y Vital Aza, Zaragüeta.

Dr. Shaw conducted the following courses:

Italian: Minor Course. Four hours weekly.

Translation of texts, weekly exercises in Italian composition, lessons in grammar with the translation, brief lectures on Italian literature weekly. The following text-books were used: Garnett, History of Italian Literature; Grandgent, Italian Grammar and Composition; De Marchi, Demetrio Pianelli; Serao, All' Eita Sentinella!; Goldoni, Il vero Amico; Boccaccio, Decameron (selections); Dante, Inferno (selections).

Italian: Elective Course. Twice weekly.

Study of the grammar with translation. The following text-books were used: Grandgent, Italian Grammar; Manzoni, Promessi Sposi (selections); Fogazzaro, Daniele Cortis.

A. M. Elliott,
Professor of Romance Languages.

History

The publication of the Studies in Historical and Political Science was continued during the year and the twenty-first series was brought to completion. The titles of the monographs included in this volume are as follows: I-II, The Wabash Trade Route in the Development of the Old Northwest, by E. J. Benton; III-IV, History of Internal Improvements in North Carolina, by C. C. Weaver; V, History of Japanese Paper Currency, by M. Takaki; VI-VII, Economics and Politics in Maryland, 1720-1750, and the Public Services of Daniel Dulany the Elder, by St. G. L. Sioussat; VIII-IX-X, Beginnings of Maryland, 1631-1639, by B. C. Steiner; XI-XII, The English Statutes in Maryland, by St. G. L. Sioussat.

The twenty-second series is in progress and the following numbers have been sent to press: A Trial Bibliography of American Trade Union Publi-
cations, prepared by the Economic Seminary of the Johns Hopkins University and edited by G. E. Barnett; White Servitude in Maryland, 1634-1820, by E. I. McCormac; Switzerland at the Beginning of the Sixteenth Century, by J. M. Vincent; Political Reconstruction in Virginia, by H. J. Eckenrode. With this volume appears also as Notes Supplementary a collection of addresses entitled "Lay Sermons," by the late Professor Amos G. Warner. These are published as a memorial of a former member of the university, who became an authority on scientific charity.

The Historical and Political Science Association entered upon its twenty-seventh year. Graduate students and instructors in History, Political Science, and Political Economy met fortnightly for the discussion of original papers and current publications in these fields of research. The proceedings from October 16 to March 25 are printed in the University Circulars for December, 1903, and April, 1904. Including the meetings of April and May, the following were among the papers presented: The Morality of the Law, by W. W. Willoughby; Nationality and the Constitution, by Professor John W. Perrin, of Western Reserve University; the Presidential Campaign of 1800, by B. C. Steiner; Studies in Economic Theory, by J. II. Hollander; the French Revolution and the Archives of France, by J. M. Wright; the Beet Industry in Europe, by F. R. Rutter; Relation between Early Spanish Chronicles and Earlier Epic Poetry, by C. C. Marden; the English Commercial System and the American Revolution, by St. G. L. Sioussat; Party Organization in the United States, by Professor Jesse Macy, of Iowa College; the Senate of the United States, by Professor J. A. Woodburn, of Indiana University; Slavery in the Bahama Islands, by J. M. Wright; the Economics of the Independent Newspaper, by Charles H. Grasty, of the Baltimore Evening News; the Introduction of the Linotype, by G. E. Barnett; Canadian Campaigns during the Reign of Queen Anne, by C. W. Sommerville.

Dr. James Schouler gave his usual course of public lectures on American history. The general subject was the Life of the People during the American Revolution, this being the third consecutive series upon this theme. The special topics considered this year were The Colonial Press; Fine Arts and Philanthropy; Common School Education; Colleges and Higher Education.

Professor Edward L. Stevenson, of Rutgers College, gave six public lectures on the Expansion of Geographic Knowledge as recorded in the Work of the Cartographers. Beginning with the ancient geographers the course followed the history of cartography through the Middle Ages, the Renaissance, and the early modern period to the close of the sixteenth century.

Professor J. W. Perrin, of Western Reserve University, delivered the Albert Shaw Lectures on Diplomatic History. The subject of the course was the Diplomatic Relations of the United States during the Administration of Thomas Jefferson. The ten lectures were followed as class-work by graduate students in history and political science.
Associate Professor J. M. Vincent conducted the following courses:

1. The Period of the French Revolution. Two hours weekly, first half-year.
2. Europe in the Nineteenth Century. Two hours weekly, second half-year.
3. Methods of Historical Research, followed by (4) the History of Historical Writing in France. Two hours weekly through the year.
4. The Historical Seminary took for investigation selected problems connected with the courses of lectures. The first half-year the subjects were taken from the French Revolution and included the following topics: A Study of Sieyes, by J. P. Hollis; the Work of Mirabeau, by H. M. Wagstaff; the Representation of Bordeaux in the National Assembly, by O. P. Chitwood; the Representative of Paris, by J. F. Bledsoe; the Moniteur, by J. C. Illidt; a Review of the Flight to Varennes, by B. W. Bond; the Revolution and the Archives of France, by J. M. Wright; the Laws of Inheritance, 1781 and 1793, by C. F. Ranft; Divorce and Marriage, Decree of 1792, by H. E. Flack; Freedom of the Press, Decree of April, 1796, by J. R. Tucker.

The second half-year was devoted to the Treaty of Vienna and international questions growing out of that agreement. To each student a country was assigned for study and report. The meetings were held in two-hour sessions in alternate weeks.

Dr. J. C. Ballagh, Associate in History, besides acting as an adviser on graduate students, has given particular attention to the class work and dissertations of advanced students in American history and has conducted the following courses:

A. For graduates:
   American History. Four hours weekly throughout the year.

The lectures each year cover distinct periods and are so arranged that the courses given in each of the three successive years continue or supplement those of the preceding year. For the past year they were:

1. History of the United States, 1789-1860. Two hours weekly throughout the year. The political and constitutional history of the period was considered during the two semesters, attention being mainly directed (1) to the development, principles, and influence of American political parties; (2) to the expansion and limitation of the federal constitution by processes of amendment, construction, and governmental organization; (3) to the political and economic causes of the civil war. An attempt was made, through an extensive use of the sources, to throw new light on the continuity of early party principles and organization and on the ultimate causes of the civil war.

2. History of American Slavery, one hour weekly throughout the year. This was a course of specialized research in the institutional and political history of slavery in America, studied in comparison with the institution as it existed in Greece and Rome and in its modifications in medieval and modern Europe. The continuity of the slave trade and the history of its attempted suppression was also considered. Members of the class investi-
gated the legal status of the slave in the Bahamas and in several of the Southern States.

3. Diplomatic History of the American Revolution, one hour weekly, first half-year; one hour alternate weeks, second half-year. This was a seminar for cooperative research and training in the use of the manuscript and printed sources of the period. Frequent oral and written reports upon topics under investigation were made by the director and members of the class, and some progress was made toward a bibliography and constructive history of a formative period in American diplomatic history.

4. Examinations in History, one hour, alternate weeks, second half-year. The course consisted of informal lectures, oral and written examinations, and, though particularly designed for candidates for the degree of Doctor of Philosophy in history, other advanced graduate students were admitted to attendance. The subjects under review this year were important periods in American colonial and revolutionary history.

In connection with the class work in American history, the following papers embodying the results of research were presented, several of which were also read before the Historical and Political Science Association: the Restoration of Virginia to the Union, by H. J. Eckenrode; the Legal Status of the Slave in the Bahama Islands, by J. M. Wright; the Organization of Justice in Colonial Virginia, by O. P. Chitwood; the Establishment of the Independent State Government in Maryland, by B. W. Bond.

B. For undergraduates:

1. Civilization and Politics in the Far East, two hours weekly throughout the year. The lectures considered important features of the civilizations and foreign relations of China, Japan, Corea, and India. The history of religious missions was carefully presented, and oral and written reports upon assignment in the authorities were frequently required.

2. Classical History, four hours weekly throughout the year. The political and constitutional history of Greece and Rome were studied through the translated texts of Herodotus, Thucydides, Plutarch, Aristotle, Suetonius, and Tacitus, with the aid of selected modern authorities. Frequent written reports were required.

Dr. Bernard C. Steiner, Associate in History, has acted as an adviser of graduate students in their researches in American history, and has conducted the following courses for undergraduates:

1. American Constitutional History, two hours weekly through the year. The course is provided as an advanced major subject in connection with the class in English Constitutional History, and is conducted by means of textbooks, lectures, and written reports.

2. Historical Politics, two hours weekly through the year. This course is intended for students not following the Historical Group and forms part of the course called "History-Economics." The subjects considered explain the growth of political institutions from early beginnings to modern times.
Johns Hopkins University Circular

Dr. G. C. Lee, Instructor in History, conducted courses in
1. *English Constitutional History*, two hours weekly, through the year.
The period covered extended from the beginnings of English history through
the nineteenth century.

2. *Public Speaking and Parliamentary Law*. With the assistance of Mr.
S. Blum and Mr. H. W. Plaggemeyer, Dr. Lee conducted undergraduate
instruction in public speaking, with the theory and practice of parlia-
mentary law. This included class lectures, public drill, and personal
instruction.

J. M. Vincent,
Associate Professor of History.

Political Science

Associate Professor Willoughby has had charge of the department of
Political Science, and, in addition to his duties as one of the editors of the
Studies in Historical and Political Science and one of the directors of the
Historical and Political Science Association, has conducted the following
courses for graduates:

1. *Political Seminary*, two hours fortnightly through the year. Current
questions in international politics and law were considered. Among the
papers read and discussed were the following: "The Sources and Literature
of International Law," by W. W. Willoughby; "Later Phases of the
Monroe Doctrine," by S. Blum; "The International Status of the
Papacy," by J. C. Hildt; "The International Status of Korea," by J. M.
Wright; "Diplomatic Relations between the United States and Hawaii," by
A. M. Sakolski; "The Irish Land Act," by M. O. Shriver; "The
Favored-Nation Clause," by T. W. Glocker; "Anglo-Saxon Unity," by
J. T. England; "The History of the Panama Canal Project," by J. F.
K. T. Crane.

2. *The Historical and Political Science Association*, fortnightly through
the year, in cooperation with the departments of History and Economics.

3. *The Political Theories and Literature of the Fourteenth, Fifteenth, Six-
teenth, and Seventeenth Centuries*, two hours weekly through the year.
The political ideas and writings of these years were analyzed and criticized,
special effort being made to show the extent to which these theories were
the outcome of the political conditions of the times in which they were for-
mulated.

4. *Advanced United States Constitutional Law*, two hours weekly, first
half-year; three hours weekly, second half-year. The more difficult and unsettled questions in American constitutional jurisprudence were discussed.

5. Current Congressional History, one hour weekly, first half-year.

W. W. Willoughby,
Associate Professor of Political Science.

Political Economy

The courses in Political Economy were directed by Professor Hollander, who met students daily, in seminary organization, for formal instruction and for co-operative research. The activity of the Economic Seminary in the investigation of the history, structure, and activities of labor organizations in the United States was supplemented by courses of lectures on certain phases of the history and theory of economic science, and on the nature and influence of particular economic institutions. Dr. George E. Barnett, Associate in Political Economy, assisted in the conduct of the work.

Professor Hollander conducted the following courses:

1. Economic Seminary, weekly, alternating a two-hour evening with a one-hour morning session. During the current academic year, the Economic Seminary has continued its investigation into the history, activities, and influence of labor organizations in the United States. Its membership has been more narrowly limited to advanced students preparing for a scientific career in economic study, and its primary design has been the development of sound method in economic research. The material resources necessary for the inquiry have been supplied by the continued generosity of the citizens of Baltimore, whose original gift made its inception possible. "A Trial Bibliography of American Trade Union Publications," in the preparation of which the Seminary has been engaged since October, 1902, has been completed and issued as a brochure of 110 pages under the editorship of Dr. Barnett, in the Johns Hopkins Studies in Historical and Political Science (January-February, 1904). Appreciable progress has also been made by individual members of the Seminary in the study of specific aspects of the several questions assigned for investigation. During the summer, field work was carried on in various carefully-selected localities, and the data thus collected have since been supplemented and corrected by documentary study and personal interview. It is hoped that, during the next academic year, a co-operative volume of studies in American trade unionism can be issued by the Seminary, embodying the preliminary results of the various investigations now in progress and ultimately designed for monographic publication. Such older members of the Seminary as were already engaged upon economic investigation in other fields were encouraged
to continue their inquiries and to present the results for criticism as to
method and content.

The papers and reports thus presented to the Seminary were as follows:
"Shop Rules of the International Typographical Union," by Dr. George
E. Barnett; "The Development of the Knights of Labor Movement," by
William Kirk; "The Condition of Women and Children in the Factories
of Baltimore," by Charles F. Ranft; "The Finances of Representative
Trade Unions," by A. M. Sakolski; "The Apprentice in the Building
Trades," by J. M. Motley; "The Future of the Trusts," by L. G.
McPherson; "The Structure of the International Cigar Makers' Union,"
by T. W. Glocker; "Evolution of Railroad Rates," by L. G. McPherson;
"Shop Rules in the Building Trades," by S. Blum; "Beneficiary Features
of the Cigar Makers' International Union," by J. B. Kennedy; "High
License in Baltimore," by H. S. Hanna (published in *Annals of American
Academy of Political and Social Science*, March, 1904); "The Beneficiary
Departments of Transportation and Mining Corporations," by L. G.
McPherson; "Oyster Legislation in Maryland," by M. O. Shriver, Jr.;
"The Theory of a Standard Rate of Wages," by William H. Buckler;
"A Comparison of the Functions of the Knights of Labor and the Ameri-
can Federation of Labor," by William Kirk; "The Cost of Strikes to
Trade Unions," by A. M. Sakolski; "Trade Agreements in the Iron
Molders' Union," by F. W. Hilbert; "Trade Union Membership in the
Building Trades," by J. M. Motley; "Collective Bargaining in the
Printing Trade," by Dr. George E. Barnett; "Employers' Associations,"
by F. W. Hilbert.

From time to time the Seminary had the benefit of addresses from per-
sons not formally connected therewith, upon topics more or less closely
related to its investigations, as follows: "Opportunities for Social Work
in Baltimore," by Dr. Walter S. Ufford, General Secretary of the Charity
Organization Society of Baltimore; "Labor Unionism and Industrial
Efficiency," by Mr. Henry White, General Secretary of the United Gar-
ment Workers of America. Certain other economic studies which may be
regarded as the outgrowth of Seminary activity were presented before the
student body in one form or another and published as follows: "The
Development of Ricardo's Theory of Value," by Professor Hollander
(published in the *Quarterly Journal of Economics*, August, 1904); "The
Introduction of the Linotype," by Dr. George E. Barnett (published in the
*Yale Review*, November, 1904); "The Economic Association at New
Orleans," by Professor Hollander (published in *The Nation*, January,
1904). A fuller account of the proceedings of the Seminary, with abstracts
of the more important papers there presented, was published in the *Johns
Hopkins University Circular*, May, 1904.

2. *The History and Theory of Distribution*, two hours weekly through the
year. An historical survey was made of the emergence of the theory
of economic distribution among the monographic pre-Smithian writers. Thereafter the development of the theory through the classical period to contemporary thought was critically traced. In connection with the course, members of the class read Senior's Political Economy, Cairnes' Leading Principles of Political Economy, and Jevons' Theory of Political Economy.

3. *The Theory and Practice of Taxation*, two hours weekly through the year. During the first half-year, the form and content of the fiscal systems of Greece, Rome and the mediæval world to the dawn of modern economic institutions were described. In the second half-year attention was paid to specific forms of taxation, and problems of incidence, economic effect and fiscal productivity were considered in the light of American experience.

Dr. George E. Barnett, Associate in Political Economy gave a course of lectures on the History and Theory of Banking, one hour weekly through the year. During the first half-year, attention was given to the historical development of banking institutions; during the second half-year a comparative study of leading banking systems was made.

Dr. Jeffrey R. Brackett, late President of the Board of Supervisors of City Charities, delivered a course of ten lectures on Charity, Public Aid and Correction. The chief topics discussed were: right conceptions of social duty, the scope of charity, development in expression of the charitable impulse, public aid or charity, a right attitude to the poor, the needy and the community, leading principles underlying social work. These topics were illustrated by a bird's eye view of methods of treatment of various classes of dependents and the needy. Several current problems of importance touching charity were discussed by the class.

In co-operation with the department of history and political science, opportunity was afforded in the Historical and Political Science Association for the presentation and discussion of original papers in economic science by instructors, advanced students, and invited speakers, and for the review of current publications of importance in these several fields.

A reading class was organized and successfully conducted by the more advanced students of the department for the co-operative study of economic texts and for the critical discussion of current economic literature.

Under the direction of Professor Hollander the Johns Hopkins Press issued, in limited edition and for subscription at a moderate price, a reprint of four notable Economic Tracts of the nineteenth century, viz., "Three Letters on 'The Price of Gold'", by David Ricardo, 1809; "An Inquiry into the Nature and Progress of Rent," by T. R. Malthus, 1815; "Essay on the Application of Capital to Land," by Sir Edward West, 1815; "A Refutation of the Wage-Fund Theory," by Francis D. Longe, 1866. The reception accorded the series has been so favorable that subscriptions have been invited to a similar reprint of four important economic tracts of the seventeenth century.
Further progress was made during the past year in the collection of trade union documents. The economic Seminary is now in receipt of all important trade union journals, proceedings of conventions, constitutions and similar publications. By purchase and gift the collection was augmented by the addition of similar printed material of earlier years, and notably by the completion of files of representative trade union journals. The additions have made accessible to students of trade unionism in the United States a larger amount of documentary material than is to be found in any one other place in the country.

The same generous donor whose earlier gifts have made it possible for the Economic Seminary to undertake and prosecute a systematic investigation of the history, activity, and influence of labor organizations in the United States, has tendered a further sum of fifteen hundred dollars to be available during the academic year 1904-1905.

A sum of money given by Mr. A. G. Hutzler of Baltimore for the purchase of Economic Classics, has permitted a notable strengthening of the departmental collection of English economic texts in the period between Adam Smith and John Stuart Mill. The books so acquired have been segregated and distinguished as "The Hutzler Collection of Economic Classics."

Professor Hollander and Dr. Barnett conducted the following undergraduate courses:

1. Major Political Economy, four hours weekly through the year. The course was divided into two-hour sections extending through the year. In the first section, attention was given to recent economic theories, with Marshall's Principles of Economics as the text-book. In the second section, the recent developments in economic organization were studied, with Hobson's Evolution of Modern Capitalism and Henry C. Adams' Finance as the text-books.

2. Minor Political Economy, four hours weekly through the year. This course was divided into two half-year sections. In the first half-year, the industrial development of England and the United States were studied. In the second half-year, systematic instruction was given in the elementary principles of economic science.

3. Elements of Economics, two hours weekly through the year. This course formed a part of "History-Economics," attendance upon which is required of all students not enrolled in Group VI, or who have not taken the minor course in Political Economy. Attention was given during the first half-year to the elements of political economy; during the second half-year, to practical economic institutions.

JACOB II. HOLLANDER,
Professor of Political Economy.
Philosophy and Psychology

GRADUATE COURSES

The work of the graduate department of Philosophy and Psychology was begun in October, when the present incumbent of the chair of Philosophy and Psychology entered upon his duties. During the first half-year—October to January—he spent part of each week in Baltimore and delivered lectures in advanced General Psychology. Beginning in January, 1904, he took up his residence in Baltimore, and added courses in Philosophy of Evolution and Social Psychology. These three subjects were continued by him throughout the second half-year.

Courses have been given by Dean Griffin in History of Philosophy and Ethics throughout the year.

Professor Baldwin has informally directed the reading of one student who wished to take work in philosophy (as a first subordinate) bearing upon his principal subject, mathematics.

The number of students attached to the department has been as follows: candidates duly enrolled for the Ph. D. degree, 3; candidates taking this department as first or second subordinate to other departments, 3; students taking single courses, 4: a total of 10 in regular attendance.

In the course of the year adequate rooms have been provided by making over part of the auditorium of Levering Hall: i.e., a Seminary room for the department and a private room for Professor Baldwin. The books in Philosophy and Psychology have been moved from the general library, and considerable additions have been made to the collection. The Seminary has been in full running order for some months.

The department is too new to report research work on the part of its members. Professor Baldwin has, however, been engaged, apart from his academic activities here and at Princeton, upon the editing of the Psychological Review (vol. xi) to which a new Literary Section has been added this year, called the Psychological Bulletin; upon the printing of the third volume of his Dictionary of Philosophy and Psychology, now passing through the Oxford Press; and upon the editorial organization and supervision of the Library of Historical Psychology for which he is also writing a volume. He has contributed various papers to journals, the most extensive being a study of Pragmatism.

The important steps which have been taken for the further development of the department by new appointments, etc., will enter into the report for next year.

UNDERGRADUATE COURSES

Courses in Logic, Psychology, Ethics, and History of Philosophy have been conducted by Professor Griffin.
Each candidate for the degree of Bachelor of Arts is required to attend, during the last year of residence, courses in philosophy occupying five hours a week. The several subjects are distributed through the year as follows: Deductive and Inductive Logic, October 1st until the Christmas recess; Psychology, January 1st to April 15th; Ethics, April 15th to June 1st; Outlines of History of Philosophy, weekly.

Text-books have been used in each subject, as affording definite material of acquisition, but informal lectures, discussions in the class, and passages from various authors assigned for reading have been largely relied upon. Each member of the class has been required to prepare two essays.

A series of lectures on the anatomy and physiology of the nervous system, by Dr. C. R. Bardeen, formed a part of the instruction in Psychology.

J. Mark Baldwin,
Professor of Philosophy and Psychology.

Edward H. Griffin,
Professor of the History of Philosophy.

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**Drawing**

The work in this course has been so arranged as to give the student a practical knowledge of drawing, which can be applied later in illustrating the work in mathematics, biology, medicine, engineering, etc. Free-hand drawing is given in the first-half, followed by work designed to assist the student in his studies in special lines. All students in the mathematical-physical group have taken the work in mechanical drawing as a direct aid in the course in mathematics.

Students who are looking forward to a course in engineering, have taken the free-hand drawing during the first half-year, followed by mechanical drawing in the second half-year. This course is supplemented by more advanced work in the second and third years.

A class for special students showing ability was held, during the entire year, in drawing from the antique. Students who intend following courses in engineering have worked during the entire year in advanced mechanical drawing.

S. Edwin Whiteman,
Instructor in Drawing.
## TABULAR STATEMENT OF COURSES OF INSTRUCTION, 1903-04

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**GERMAN**

*Advanced Work.*

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**Major Course.**

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</table>

**Minor Course: Class A.**

<table>
<thead>
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<th>INSTRUCTORS</th>
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<th>No. of students, 2nd half-year</th>
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</thead>
<tbody>
<tr>
<td>Wood</td>
<td>Prose Composition.</td>
<td>1</td>
<td>33</td>
<td>31</td>
</tr>
<tr>
<td>Vos</td>
<td>Selected Prose Readings.</td>
<td>3</td>
<td>33</td>
<td>31</td>
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<tr>
<td>Vos</td>
<td>Schiller; Goethe.</td>
<td>3</td>
<td>9</td>
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**Minor Course: Class B.**

<table>
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</thead>
<tbody>
<tr>
<td>Kurrelmeyer</td>
<td>Vos; Buchheim; Whitney; Modern Writers.</td>
<td>3</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Kurrelmeyer</td>
<td>Prose Composition.</td>
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<td>9</td>
<td>9</td>
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# Tabular Statement of Courses

<table>
<thead>
<tr>
<th>INSTRUCTORS</th>
<th>COURSES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vos.</td>
<td>German Ballads; Goethe.</td>
</tr>
<tr>
<td>Kurrelmeyer.</td>
<td>Scientific Readings.</td>
</tr>
<tr>
<td>Hofmann.</td>
<td>German Conversation.</td>
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</table>

## Elective and Supplementary Courses

<table>
<thead>
<tr>
<th>COURSES</th>
<th>No. of Honors per week</th>
<th>No. of students, 1st Half-year</th>
<th>No. of students, 2d Half-year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vos.</td>
<td>2</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Kurrelmeyer.</td>
<td>2</td>
<td>3</td>
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<tr>
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<td>2</td>
<td>6</td>
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<tr>
<td>Hofmann.</td>
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</table>

## ROMANCE LANGUAGES

<table>
<thead>
<tr>
<th>COURSES</th>
<th>No. of Honors per week</th>
<th>No. of students, 1st Half-year</th>
<th>No. of students, 2d Half-year</th>
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<tbody>
<tr>
<td>Elliott.</td>
<td>Old French Seminar: Marie de France. (Alt. weeks.)</td>
<td>2</td>
<td>7</td>
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<tr>
<td>Elliott.</td>
<td>Latin of Marie de France.</td>
<td>1</td>
<td>8</td>
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<tr>
<td>Elliott.</td>
<td>French Dialects.</td>
<td>1</td>
<td>5</td>
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<tr>
<td>Elliott.</td>
<td>Romance Club.</td>
<td>1</td>
<td>14</td>
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<tr>
<td>Elliott.</td>
<td>Popular Latin.</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Armstrong.</td>
<td>Dante. (Lectures.)</td>
<td>1</td>
<td>5</td>
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<tr>
<td>Armstrong.</td>
<td>French Physiological Phonetics.</td>
<td>1</td>
<td>6</td>
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<tr>
<td>Armstrong.</td>
<td>French Syntax.</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Armstrong.</td>
<td>French Phonology.</td>
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<td>4</td>
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<tr>
<td>Ogden.</td>
<td>Old French Readings: Elementary.</td>
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<td>3</td>
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<tr>
<td>Ogden.</td>
<td>Modern French Seminar: French Theatre (XIX C.) (Alt. weeks.)</td>
<td>2</td>
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<tr>
<td>Ogden.</td>
<td>Early French Drama.</td>
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<td>Armstrong.</td>
<td>French Lyric Poetry.</td>
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<td>11</td>
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<tr>
<td>Brush.</td>
<td>French Classics: Monthly.</td>
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<tr>
<td>Marden.</td>
<td>Spanish Seminar.</td>
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<td>Marden.</td>
<td>Old Spanish Readings.</td>
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<td>Marden.</td>
<td>Spanish Historical Grammar. (Alt. weeks.)</td>
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<td>2</td>
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<tr>
<td>Marden.</td>
<td>Spanish Drama. (XVII C.)</td>
<td>1</td>
<td>16</td>
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<tr>
<td>Marden.</td>
<td>Spanish: Minor Course.</td>
<td>2</td>
<td>3</td>
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<tr>
<td>Keidel.</td>
<td>Spanish: Elective Course.</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Keidel.</td>
<td>Methodology of the Romance Languages.</td>
<td>2</td>
<td>3</td>
</tr>
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<td>Keidel.</td>
<td>Medieval Sources.</td>
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<td>Armstrong.</td>
<td>Manuscript Sources.</td>
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<td>10</td>
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<td>Armstrong.</td>
<td>Romance Palaeography.</td>
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<tr>
<td>Armstrong.</td>
<td>French: Major Course.</td>
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<tr>
<td>Armstrong.</td>
<td>French: Minor Course (Class A).</td>
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<tr>
<td>Armstrong.</td>
<td>French: Minor Course (Class B).</td>
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<td>French: Elective Course.</td>
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<td>3</td>
</tr>
<tr>
<td>Shaw.</td>
<td>Italian Seminar.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Shaw.</td>
<td>Italian Phonology and Morphology.</td>
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<td>2</td>
</tr>
<tr>
<td>Shaw.</td>
<td>Dante Readings.</td>
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<td>5</td>
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<tr>
<td>Shaw.</td>
<td>Italian Prosse. (XIII C.)</td>
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<td>Italian: Minor Course.</td>
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<td>Italian: Elective Course.</td>
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<tr>
<td>Warren.</td>
<td>Arthurian Epic. (Twenty lectures.)</td>
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<tr>
<td>Warren.</td>
<td>Medieval Drama. (Six lectures.)</td>
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</table>

## HISTORY AND POLITICAL SCIENCE

<table>
<thead>
<tr>
<th>COURSES</th>
<th>No. of Honors per week</th>
<th>No. of students, 1st Half-year</th>
<th>No. of students, 2d Half-year</th>
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</thead>
<tbody>
<tr>
<td>Vincent.</td>
<td>Historical and Political Science Association. (Alt. weeks.)</td>
<td>2</td>
<td>14</td>
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<tr>
<td>Vincent.</td>
<td>Historical Seminar. (Alt. weeks.)</td>
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<td>14</td>
</tr>
<tr>
<td>Vincent.</td>
<td>French Revolution.</td>
<td>2</td>
<td>23</td>
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<tr>
<td>Vincent.</td>
<td>Nineteenth Century.</td>
<td>2</td>
<td>22</td>
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<td>Vincent.</td>
<td>Methods of Research.</td>
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<td>25</td>
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<tr>
<td>Vincent.</td>
<td>European History.</td>
<td>2</td>
<td>25</td>
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<tr>
<td>INSTRUCTORS</td>
<td>COURSES</td>
<td>No. of hours per week</td>
<td>No. of students, most weeks</td>
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</tr>
<tr>
<td>Ballagh.</td>
<td>General History Examinations.</td>
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<tr>
<td>Ballagh.</td>
<td>Diplomatic History of American Revolution.</td>
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<td>12</td>
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<tr>
<td>Ballagh.</td>
<td>American Slavery.</td>
<td>1</td>
<td>17</td>
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<tr>
<td>Ballagh.</td>
<td>History of United States, 1789-1860.</td>
<td>2</td>
<td>16</td>
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<tr>
<td>Ballagh.</td>
<td>Civilization and Politics in the East.</td>
<td>2</td>
<td>25</td>
</tr>
<tr>
<td>Ballagh.</td>
<td>Classical History.</td>
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<td>29</td>
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<tr>
<td>Willoughby, W.W.</td>
<td>Political Seminary. (Alternate weeks.)</td>
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<td>Willoughby, W.W.</td>
<td>History of Political Theories.</td>
<td>2</td>
<td>18</td>
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<tr>
<td>Willoughby, W.W.</td>
<td>U. S. Constitutional Law.</td>
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<td>24</td>
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<tr>
<td>Steiner.</td>
<td>Current Congressional History.</td>
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<td>24</td>
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<tr>
<td>Lee.</td>
<td>European History.</td>
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<td>4</td>
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<tr>
<td>Schouler, J.</td>
<td>American Political and Constitutional History.</td>
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<tr>
<td>Perrin.</td>
<td>Diplomatic History of the U. S., 1801-09. (Ten lectures.)</td>
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<td>Stevenson.</td>
<td>History of Cartography. (Six lectures.)</td>
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**POLITICAL ECONOMY**

<table>
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<th>No. of hours per week</th>
<th>No. of students, most weeks</th>
<th>No. of students, last few weeks</th>
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<tbody>
<tr>
<td>Hollander.</td>
<td>Economic Seminary. (Alternate weeks.)</td>
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<td>11</td>
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<tr>
<td>Hollander.</td>
<td>History and Theory of Distribution.</td>
<td>2</td>
<td>21</td>
<td>19</td>
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<tr>
<td>Hollander.</td>
<td>Theory and Practice of Taxation.</td>
<td>2</td>
<td>21</td>
<td>19</td>
</tr>
<tr>
<td>Hollander.</td>
<td>Economic Readings.</td>
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<td>14</td>
<td>13</td>
</tr>
<tr>
<td>Hollander.</td>
<td>Elements of Economics.</td>
<td>2</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>Hollander.</td>
<td>Theory of Political Economy.</td>
<td>2</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>Barnett.</td>
<td>Banking.</td>
<td>1</td>
<td>17</td>
<td>15</td>
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<tr>
<td>Barnett.</td>
<td>Economic Institutions.</td>
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<td>15</td>
<td>12</td>
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<tr>
<td>Barnett.</td>
<td>Political Economy: Minor Course.</td>
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<td>26</td>
<td>20</td>
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<tr>
<td>Brackett, J. R.</td>
<td>Public Aid, Charities, etc. (Ten lectures.)</td>
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**PHILOSOPHY AND PSYCHOLOGY**

<table>
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<th>No. of hours per week</th>
<th>No. of students, most weeks</th>
<th>No. of students, last few weeks</th>
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</thead>
<tbody>
<tr>
<td>Baldwin.</td>
<td>General Psychology.</td>
<td>2</td>
<td>7</td>
<td>9</td>
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<tr>
<td>Baldwin.</td>
<td>Philosophy of Science.</td>
<td>2</td>
<td>7</td>
<td>4</td>
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<tr>
<td>Baldwin.</td>
<td>Philosophy of Evolution.</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Griffin.</td>
<td>Seminar in Social Psychology, etc.</td>
<td>1</td>
<td>2</td>
<td>2</td>
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<tr>
<td>Griffin.</td>
<td>Modern Ethical Theories.</td>
<td>1</td>
<td>3</td>
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<tr>
<td>Griffin.</td>
<td>History of Philosophy (Descartes to Kant.)</td>
<td>3</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Griffin.</td>
<td>Logic. (Until December 18.)</td>
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<td>8</td>
<td>8</td>
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<tr>
<td>Griffin.</td>
<td>Psychology. (January 4 to March 25.)</td>
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<tr>
<td>Griffin.</td>
<td>Ethics. (After April 6.)</td>
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**DRAWING**

<table>
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<th>INSTRUCTORS</th>
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<th>No. of hours per week</th>
<th>No. of students, most weeks</th>
<th>No. of students, last few weeks</th>
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</thead>
<tbody>
<tr>
<td>Whiteman.</td>
<td>Freehand, Constructive, and Perspective Drawing.</td>
<td>6</td>
<td>27</td>
<td>43</td>
</tr>
<tr>
<td>Whiteman.</td>
<td>Special Work.</td>
<td>6</td>
<td>5</td>
<td>8</td>
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</table>

**FORENSICS AND ELOCUTION**

<table>
<thead>
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<th>COURSES</th>
<th>No. of hours per week</th>
<th>No. of students, most weeks</th>
<th>No. of students, last few weeks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lee.</td>
<td>Debate. (Alternate weeks.)</td>
<td>1</td>
<td>19</td>
<td>18</td>
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<tr>
<td>Lee.</td>
<td>Parliamentary Practice.</td>
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<td>44</td>
<td>44</td>
</tr>
<tr>
<td>Plagemeyer.</td>
<td>Elements of Public Speaking.</td>
<td>3</td>
<td>55</td>
<td>54</td>
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<tr>
<td>Lee.</td>
<td>Elements of Parliamentary Law.</td>
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<td>43</td>
<td>43</td>
</tr>
</tbody>
</table>
REPORT OF THE REGISTRAR

The academic staff included during the year 1903-04 one hundred and fifty-eight teachers, eighty-two in the philosophical department and seventy-six whose work lay wholly in medicine. The number of students enrolled was seven hundred and fifteen, of whom two hundred and ninety-four were residents of Maryland, four hundred and six came here from forty-two other States of the Union, and fifteen from foreign countries. Among the students were five hundred and fifty-six already graduated, two hundred and two of whom were enrolled in the department of Philosophy and the Arts, three hundred and fifty-four in the department of Medicine. They came from one hundred and sixty-nine colleges and universities. There were one hundred and forty-two matriculates (or candidates for the degree of Bachelor of Arts), and eighteen were admitted as special students, to pursue courses of study for which they seemed fitted, without reference to graduation. The enrolment for the year may be summarized as follows:

Faculty

President and Professors ................................................................. 30
Clinical Professors ............................................................................ 7
Associate Professors ......................................................................... 30
Instructors and Assistants ................................................................. 45
Lecturers............................................................................................ 20

158

Students

Graduate Students:

Fellows by Courtesy ........................................................................... 20
Fellows ................................................................................................. 22
Other Graduate Students in Philosophy ............................................. 160
Candidates for the degree of M. D................................................... 276
Physicians attending Special Courses .............................................. 82

560

Undergraduates:

Candidates for the degree of A. B..................................................... 142
Not candidates for a degree .............................................................. 18

160

Counted twice .................................................................................. 720

Total .................................................................................................. 715

During the past twenty-eight years, forty-nine hundred and twenty-six individuals have been enrolled as students, of whom eighteen hundred and seventy-four are registered as from Maryland (including fifteen hundred
and seven from Baltimore), and three thousand and fifty-two from seventy-four other States and countries. Three thousand two hundred and fifty persons entered as graduate students, and sixteen hundred and seventy-six entered as undergraduates. Of the undergraduates, four hundred and fifty-seven have continued as graduate students, many of them proceeding to the degree of Doctor of Philosophy. It thus appears that three thousand seven hundred and seven persons have followed graduate studies here. The following table shows the enrolment of students in each year:

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Enrolled</th>
<th>Graduates (incl. Fellows)</th>
<th>Matriculates</th>
<th>Non-Matriculates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1876-77</td>
<td>89</td>
<td>54</td>
<td>12</td>
<td>23</td>
</tr>
<tr>
<td>1877-78</td>
<td>104</td>
<td>68</td>
<td>24</td>
<td>22</td>
</tr>
<tr>
<td>1878-79</td>
<td>123</td>
<td>63</td>
<td>23</td>
<td>25</td>
</tr>
<tr>
<td>1879-80</td>
<td>159</td>
<td>79</td>
<td>32</td>
<td>48</td>
</tr>
<tr>
<td>1880-81</td>
<td>175</td>
<td>102</td>
<td>37</td>
<td>37</td>
</tr>
<tr>
<td>1881-82</td>
<td>175</td>
<td>99</td>
<td>45</td>
<td>31</td>
</tr>
<tr>
<td>1882-83</td>
<td>204</td>
<td>125</td>
<td>49</td>
<td>30</td>
</tr>
<tr>
<td>1883-84</td>
<td>249</td>
<td>159</td>
<td>63</td>
<td>37</td>
</tr>
<tr>
<td>1884-85</td>
<td>230</td>
<td>174</td>
<td>69</td>
<td>47</td>
</tr>
<tr>
<td>1885-86</td>
<td>314</td>
<td>184</td>
<td>96</td>
<td>84</td>
</tr>
<tr>
<td>1886-87</td>
<td>378</td>
<td>228</td>
<td>108</td>
<td>42</td>
</tr>
<tr>
<td>1887-88</td>
<td>429</td>
<td>231 (Phil., 220 Med., 11)</td>
<td>127</td>
<td>62</td>
</tr>
<tr>
<td>1888-89</td>
<td>394</td>
<td>216 (Phil., 202 Med., 14)</td>
<td>129</td>
<td>49</td>
</tr>
<tr>
<td>1889-90</td>
<td>404</td>
<td>229 (Phil., 209 Med., 20)</td>
<td>130</td>
<td>45</td>
</tr>
<tr>
<td>1890-91</td>
<td>458</td>
<td>276 (Phil., 233 Med., 43)</td>
<td>141</td>
<td>51</td>
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<tr>
<td>1891-92</td>
<td>547</td>
<td>337 (Phil., 288 Med., 39)</td>
<td>140</td>
<td>70</td>
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<tr>
<td>1892-93</td>
<td>551</td>
<td>347 (Phil., 297 Med., 50)</td>
<td>133</td>
<td>71</td>
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<tr>
<td>1893-94</td>
<td>522</td>
<td>344 (Phil., 261 Med., 88)</td>
<td>123</td>
<td>55</td>
</tr>
<tr>
<td>1894-95</td>
<td>589</td>
<td>412 (Phil., 284 Med., 128)</td>
<td>126</td>
<td>51</td>
</tr>
<tr>
<td>1895-96</td>
<td>596</td>
<td>406 (Phil., 233 Med., 133)</td>
<td>149</td>
<td>41</td>
</tr>
<tr>
<td>1896-97</td>
<td>520</td>
<td>344 (Phil., 210 Med., 104)</td>
<td>144</td>
<td>32</td>
</tr>
<tr>
<td>1897-98</td>
<td>641</td>
<td>456 (Phil., 215 Med., 241)</td>
<td>132</td>
<td>33</td>
</tr>
<tr>
<td>1898-99</td>
<td>649</td>
<td>462 (Phil., 210 Med., 232)</td>
<td>163</td>
<td>24</td>
</tr>
<tr>
<td>1899-1900</td>
<td>645</td>
<td>469 (Phil., 185 Med., 284)</td>
<td>159</td>
<td>17</td>
</tr>
<tr>
<td>1900-01</td>
<td>651</td>
<td>473 (Phil., 188 Med., 303)</td>
<td>158</td>
<td>20</td>
</tr>
<tr>
<td>1901-02</td>
<td>694</td>
<td>630 (Phil., 172 Med., 258)</td>
<td>158</td>
<td>6</td>
</tr>
<tr>
<td>1902-03</td>
<td>695</td>
<td>632 (Phil., 187 Med., 245)</td>
<td>147</td>
<td>16</td>
</tr>
<tr>
<td>1903-04</td>
<td>715</td>
<td>550 (Phil., 202 Med., 354)</td>
<td>141</td>
<td>18</td>
</tr>
</tbody>
</table>
The next table indicates the geographical distribution of the students:

<table>
<thead>
<tr>
<th>Year</th>
<th>From Maryland</th>
<th>From Other States and Countries</th>
<th>From Maryland</th>
<th>From Other States and Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>1876-77</td>
<td>78</td>
<td>20</td>
<td>1899-90</td>
<td>235</td>
</tr>
<tr>
<td>1877-78</td>
<td>71</td>
<td>23</td>
<td>1891-92</td>
<td>273</td>
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<td>1878-79</td>
<td>76</td>
<td>47</td>
<td>1892-93</td>
<td>265</td>
</tr>
<tr>
<td>1879-80</td>
<td>97</td>
<td>62</td>
<td>1893-94</td>
<td>290</td>
</tr>
<tr>
<td>1880-81</td>
<td>81</td>
<td>24</td>
<td>1894-95</td>
<td>202</td>
</tr>
<tr>
<td>1881-82</td>
<td>97</td>
<td>78</td>
<td>1895-96</td>
<td>272</td>
</tr>
<tr>
<td>1882-83</td>
<td>106</td>
<td>98</td>
<td>1896-97</td>
<td>254</td>
</tr>
<tr>
<td>1883-84</td>
<td>123</td>
<td>125</td>
<td>1897-98</td>
<td>262</td>
</tr>
<tr>
<td>1884-85</td>
<td>130</td>
<td>160</td>
<td>1898-99</td>
<td>277</td>
</tr>
<tr>
<td>1885-86</td>
<td>130</td>
<td>184</td>
<td>1899-1900</td>
<td>262</td>
</tr>
<tr>
<td>1886-87</td>
<td>162</td>
<td>216</td>
<td>1900-01</td>
<td>270</td>
</tr>
<tr>
<td>1887-88</td>
<td>199</td>
<td>221</td>
<td>1901-02</td>
<td>270</td>
</tr>
<tr>
<td>1888-89</td>
<td>213</td>
<td>211</td>
<td>1902-03</td>
<td>270</td>
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<tr>
<td>1889-90</td>
<td>183</td>
<td>189</td>
<td>1903-04</td>
<td>224</td>
</tr>
</tbody>
</table>

The growth of the medical department is noteworthy, as shown by the following table of enrolment since its opening:

<table>
<thead>
<tr>
<th>Year</th>
<th>Candidates for the Degree of M. D.</th>
<th>Doctors of Medicine</th>
<th>Total Enrolment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1893-94</td>
<td>18</td>
<td>65</td>
<td>83</td>
</tr>
<tr>
<td>1894-95</td>
<td>51</td>
<td>77</td>
<td>133</td>
</tr>
<tr>
<td>1895-96</td>
<td>84</td>
<td>69</td>
<td>153</td>
</tr>
<tr>
<td>1896-97</td>
<td>123</td>
<td>11</td>
<td>134</td>
</tr>
<tr>
<td>1897-98</td>
<td>167</td>
<td>74</td>
<td>241</td>
</tr>
<tr>
<td>1898-99</td>
<td>197</td>
<td>55</td>
<td>252</td>
</tr>
<tr>
<td>1899-1900</td>
<td>211</td>
<td>73</td>
<td>284</td>
</tr>
<tr>
<td>1900-01</td>
<td>209</td>
<td>96</td>
<td>305</td>
</tr>
<tr>
<td>1901-02</td>
<td>229</td>
<td>129</td>
<td>358</td>
</tr>
<tr>
<td>1902-03</td>
<td>256</td>
<td>89</td>
<td>345</td>
</tr>
<tr>
<td>1903-04</td>
<td>276</td>
<td>73</td>
<td>354</td>
</tr>
</tbody>
</table>

The attendance upon the courses given in the principal subjects has been as follows during the last five years:

<table>
<thead>
<tr>
<th>Subject</th>
<th>1899-1900</th>
<th>1900-01</th>
<th>1901-02</th>
<th>1902-03</th>
<th>1903-04</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics and Astronomy</td>
<td>60</td>
<td>49</td>
<td>52</td>
<td>66</td>
<td>62</td>
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<tr>
<td>Physics</td>
<td>91</td>
<td>84</td>
<td>76</td>
<td>68</td>
<td>69</td>
</tr>
<tr>
<td>Chemistry</td>
<td>115</td>
<td>121</td>
<td>92</td>
<td>106</td>
<td>120</td>
</tr>
<tr>
<td>Geology and Mineralogy</td>
<td>31</td>
<td>27</td>
<td>26</td>
<td>26</td>
<td>37</td>
</tr>
<tr>
<td>Biology (Zoology, Botany, Physiology)</td>
<td>154</td>
<td>144</td>
<td>168</td>
<td>211</td>
<td>34</td>
</tr>
<tr>
<td>Zoology and Botany</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>173</td>
</tr>
<tr>
<td>Physiology</td>
<td>20</td>
<td>36</td>
<td>50</td>
<td>33</td>
<td>40</td>
</tr>
<tr>
<td>Pathology and Bacteriology</td>
<td>38</td>
<td>28</td>
<td>35</td>
<td>32</td>
<td>32</td>
</tr>
<tr>
<td>Greek</td>
<td>67</td>
<td>56</td>
<td>60</td>
<td>63</td>
<td>53</td>
</tr>
<tr>
<td>Latin</td>
<td>38</td>
<td>29</td>
<td>43</td>
<td>36</td>
<td>33</td>
</tr>
<tr>
<td>Sanskrit, etc.</td>
<td>31</td>
<td>23</td>
<td>49</td>
<td>41</td>
<td>33</td>
</tr>
<tr>
<td>German</td>
<td>121</td>
<td>111</td>
<td>143</td>
<td>169</td>
<td>100</td>
</tr>
<tr>
<td>French, Italian, and Spanish</td>
<td>90</td>
<td>89</td>
<td>107</td>
<td>92</td>
<td>83</td>
</tr>
<tr>
<td>English and Anglo-Saxon</td>
<td>160</td>
<td>144</td>
<td>149</td>
<td>162</td>
<td>153</td>
</tr>
<tr>
<td>History, Economics, and Politics</td>
<td>121</td>
<td>126</td>
<td>114</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Political Economy</td>
<td></td>
<td></td>
<td></td>
<td>114</td>
<td>99</td>
</tr>
<tr>
<td>Philosophy</td>
<td>58</td>
<td>49</td>
<td>57</td>
<td>64</td>
<td>52</td>
</tr>
</tbody>
</table>

*Including only the courses offered to graduates in medicine.
The degree of Bachelor of Arts was conferred, in 1903-04, upon thirty-seven candidates, the degree of Doctor of Medicine upon forty-five, and thirty-one were promoted to the degree of Doctor of Philosophy. Since degrees were first conferred, in 1878, eight hundred and thirty-nine persons have attained the Baccalaureate degree, six hundred and fifty-four have been advanced to the degree of Doctor of Philosophy, and three hundred and seventeen to the degree of Doctor of Medicine, as appears from the following table,—the whole number of individuals graduated being sixteen hundred and thirty-eight:

<table>
<thead>
<tr>
<th></th>
<th>B. A.</th>
<th>Ph. D.</th>
<th></th>
<th>B. A.</th>
<th>Ph. D.</th>
<th>M. D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1877-78</td>
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<td>4</td>
<td>1891-92</td>
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<td>37</td>
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<tr>
<td>1878-79</td>
<td>3</td>
<td>6</td>
<td>1892-93</td>
<td>40</td>
<td>25</td>
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<tr>
<td>1879-80</td>
<td>10</td>
<td>5</td>
<td>1893-94</td>
<td>41</td>
<td>34</td>
<td></td>
</tr>
<tr>
<td>1880-81</td>
<td>12</td>
<td>9</td>
<td>1894-95</td>
<td>37</td>
<td>47</td>
<td></td>
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<tr>
<td>1881-82</td>
<td>15</td>
<td>9</td>
<td>1895-96</td>
<td>37</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>1882-83</td>
<td>10</td>
<td>6</td>
<td>1896-97</td>
<td>36</td>
<td>42</td>
<td>15</td>
</tr>
<tr>
<td>1883-84</td>
<td>23</td>
<td>15</td>
<td>1897-98</td>
<td>49</td>
<td>38</td>
<td>22</td>
</tr>
<tr>
<td>1884-85</td>
<td>9</td>
<td>13</td>
<td>1898-99</td>
<td>88</td>
<td>42</td>
<td>82</td>
</tr>
<tr>
<td>1885-86</td>
<td>31</td>
<td>17</td>
<td>1899-00</td>
<td>48</td>
<td>35</td>
<td>44</td>
</tr>
<tr>
<td>1886-87</td>
<td>34</td>
<td>20</td>
<td>1900-01</td>
<td>41</td>
<td>30</td>
<td>63</td>
</tr>
<tr>
<td>1887-88</td>
<td>34</td>
<td>27</td>
<td>1901-02</td>
<td>49</td>
<td>17</td>
<td>57</td>
</tr>
<tr>
<td>1888-89</td>
<td>36</td>
<td>29</td>
<td>1902-03</td>
<td>46</td>
<td>27</td>
<td>49</td>
</tr>
<tr>
<td>1889-90</td>
<td>27</td>
<td>33</td>
<td>1903-04</td>
<td>37</td>
<td>31</td>
<td>43</td>
</tr>
<tr>
<td>1890-91</td>
<td>51</td>
<td>28</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

|       | 839  | 654  | 317  |

Certificates of proficiency in applied electricity were awarded to ninety-one persons from 1889 to 1899.

T. R. Ball,
Registrar.
DOCTORS OF PHILOSOPHY

James Barnes, of Halifax, N. S., A. B., Dalhousie University, 1899. 


Rheinart Parker Cowles, of Los Angeles, Cal., A. B., Leland Stanford, Jr. University, 1899. Subjects: Zoology, Physiology, and Botany. Dis-
Johns Hopkins University Circular

[810]


Charles Edward Lyon, of Baltimore County, Md., A. B., Johns Hopkins University, 1897. Subjects: German, French, and Latin. Dissertation:
The History of the German Address Forms in Medieval Epic Poetry. 
Referees on Dissertation: Professors H. Wood and Vos.


James Blanton Wharey, of Clarksville, Tenn., A. B., Davidson College,
1892. **Subjects**: English, German, and French. **Dissertation**: A Study of the Sources of Bunyan's Allegories, with Special Reference to Deguileville's *Pilgrimage of Man*. **Referees on Dissertation**: Professors Bright and Browne.


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**Doctors of Medicine**

Jay Harvey Bacon, of Tiskilwa, Ill., S. B., Knox College, 1900.

Theodore Baker, of Bellevernon, Pa., A. B., Princeton University, 1900.

Robert Bennet Bean, of Gala, Va., S. B., Virginia Polytechnic Institute, 1900.

Ruth Bennett, of Chicago, Ill., A. B., University of Illinois, 1899.

John McFarland Bergland, of Baltimore, S. B., Princeton, 1900.

Maurice Buford Bonta, of Harrodsburg, Ky., A. B., Kentucky Wesleyan College, 1894, S. B., University of Michigan, 1897.

Walter Vernon Brem, Jr., of Morganton, N. C., S. B., University of North Carolina, 1896.


DeWitt Bellinger Casler, of Little Falls, N. Y., A. B., Yale, 1900.

Ralph Torrey Edwards, of Galesburg, Ill., A. B., Knox College, 1897.

Anfin Egdahl, of Menomonie, Wis., S. B., University of Wisconsin, 1900.


Herbert Ziegler Griffen, of Atlantic City, N. J., S. B., Princeton University, 1900.

Harry Seliger Greenbaum, of Baltimore, A. B., Johns Hopkins University, 1899.

Josephine Hemenway, of Glasgow, Mo., A. B., Pritchett College, 1898.

William Raphael Kellogg, of Baltimore, A. B., Adelbert College, 1898.

Kenelm Julius Lee, of Renville, Minn., S. B., University of Wisconsin, 1900.

John Marion Love, of Petersburg, Va., A. B., Hampden-Sidney, 1899.

Wilfred Hamilton Manwaring, of Ann Arbor, Mich., S. B., University of Michigan, 1895.

William Carpenter McCarty, of Louisville, Ky., S. B., Kentucky State College, 1900.
Ernest Clare McGouldrick, of Machias, Me., A. B., Yale University, 1900.
Lorenzo Seymour Morgan, of Galva, Ill., S. B., Knox College, 1900.
James Francis Morrison, of Thomsonville, Conn., A. B., Harvard University, 1900.
Norman Oscar Nelson, of Madison, Wis., S. B., University of Wisconsin, 1900.
James Henry Randolph, of Tallahassee, Fla., A. B., Florida State College, 1900.
Jewett Villeroy Reed, of Jeffersonville, Ind., S. B., Kentucky State College, 1900.
Charles Mallory Remsen, of Baltimore, A. B., Johns Hopkins, 1899.
William Gray Ricker, of Ryegate, Vt., A. B., Yale University, 1900.
Ernest Sachs, of New York City, A. B., Harvard University, 1900.
Orville Hickok Schell, of Harrisburg, Pa., A. B., Yale University, 1900.
Harry Russell Stone, of Middletown, Conn., Ph. B., Wesleyan University, 1899.
Henry John Storrs, of South Boston, Mass., A. B., Amherst, 1899.
George Lane Taneyhill, Jr., of Baltimore, A. B., Johns Hopkins University, 1900.
Benjamin Taylor Terry, of Birmingham, Ala., A. B., Vanderbilt University, 1893.
William Lawton Thompson, of Portland, Me., A. B., Bowdoin, 1899.
George Thomas Tyler, Jr., of Fredericksburg, Va., A. B., Randolph-Macon College, 1896.
William Jerome Vogeler, of Baltimore, A. B., Yale University, 1900.
Robert Glendenning Washburn, of Milwaukee, Wis., S. B., University of Wisconsin, 1900.
Louis Schneider Weaver, of Newry, Pa., A. B., Pennsylvania College, 1899.
John Scott Willock, of Allegheny, Pa., S. B., Princeton University, 1900.
Walter Scott Wilson, of Savannah, Ga., A. B., North Georgia Agricultural College, 1880.
Winfred Wilson, of Weatherford, Tex., A. B., Weatherford College, 1900.
Bachelors of Arts

<table>
<thead>
<tr>
<th>Name</th>
<th>City</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sidney Herman Adler, of Baltimore</td>
<td></td>
</tr>
<tr>
<td>Charles Robert Austrian, of Baltimore</td>
<td></td>
</tr>
<tr>
<td>Jesse Lee Bennett, of Baltimore</td>
<td></td>
</tr>
<tr>
<td>Joseph Robson Bromwell Branch, of Howard County, Md.</td>
<td></td>
</tr>
<tr>
<td>William Edmonston Crozier, of Baltimore</td>
<td></td>
</tr>
<tr>
<td>Philip Dettelbach, of Baltimore</td>
<td></td>
</tr>
<tr>
<td>Sidney Charles Erlanger, of Baltimore</td>
<td></td>
</tr>
<tr>
<td>George Andrew Foster, of Johnstown, Pa.</td>
<td></td>
</tr>
<tr>
<td>Ralph Ottomar Fuerbringer, of Saginaw, Mich.</td>
<td></td>
</tr>
<tr>
<td>Alfred Logsdon Geiger, of Baltimore</td>
<td></td>
</tr>
<tr>
<td>Josias Clerk Lee Hawkins, of Charles County, Md.</td>
<td></td>
</tr>
<tr>
<td>Harry H. Humrichouse, of Baltimore</td>
<td></td>
</tr>
<tr>
<td>William Muse Hunley, of Baltimore</td>
<td></td>
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<tr>
<td>Andrew Dickson Jones, Jr., of Baltimore</td>
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<tr>
<td>Walter William Kohn, of Baltimore</td>
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<tr>
<td>Wilbur Leslie LeCron, of Baltimore</td>
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<tr>
<td>Roy Stiles Licking, of York, Pa.</td>
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<tr>
<td>Henry Loane Lloyd, of Baltimore</td>
<td></td>
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<td>Henry Charles Ernest Louis, of Baltimore</td>
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<td>William Howard Matthai, of Baltimore</td>
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<td>John McGlone, of Baltimore</td>
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<tr>
<td>Henry Clay Miller, of Baltimore</td>
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<td>Harry Edward Muhly, of Baltimore</td>
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<tr>
<td>Clarence Alfred Neal, of Baltimore</td>
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<tr>
<td>Reginald Stevenson Opie, of Baltimore</td>
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<tr>
<td>Frank Gibson Porter, of Baltimore</td>
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<td>Merrill Rosenfeld, of Baltimore</td>
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<tr>
<td>Gerald Benjamin Rosenheim, of Baltimore</td>
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<tr>
<td>Charles Henry Saylor, of Baltimore</td>
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</tr>
<tr>
<td>Samuel Hyman Schapiro, of Baltimore</td>
<td></td>
</tr>
<tr>
<td>John Bushrod Schwatka, of Baltimore</td>
<td></td>
</tr>
<tr>
<td>Frank Stollenwerck, Jr., of Dunham, Ala.</td>
<td></td>
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<tr>
<td>Lytton Morgan Tough, Jr., of Baltimore</td>
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<tr>
<td>Leonard Griffith Wallis, of Baltimore</td>
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<tr>
<td>Newton Edward Washington Wayson, of Baltimore County, Md.</td>
<td></td>
</tr>
<tr>
<td>Luther Martin Reynolds Willis, of Baltimore</td>
<td></td>
</tr>
</tbody>
</table>

(37)
REPORT ON THE OFFICIAL STATE BUREAUS
CONNECTED WITH THE UNIVERSITY

TO THE PRESIDENT OF THE JOHNS HOPKINS UNIVERSITY:

I herewith submit the following report regarding the work of the official State Bureaus conducted under the auspices of the Johns Hopkins University. The investigations of these organizations are carried on in large measure by the instructors and students of the geological department, and, therefore, properly constitute a part of the university work.

THE MARYLAND GEOLOGICAL SURVEY

The Maryland Geological Survey, which has been in existence somewhat over eight years, having been established by an Act of the General Assembly in March, 1896, has been in charge of Professor Clark as State Geologist since its establishment. Its appropriations, which at the start were $10,000 annually, have been gradually increased until the combined resources of the Survey at the present time amount to $25,000 annually. With these increases in the annual appropriations have come added duties and increased responsibilities. The work of the Survey now covers a wide field, including geology, topographic surveying, terrestrial magnetism, forestry, hydrography, agricultural soils, and highway engineering.

The geological work which is directly under the charge of the State Geologist, is divided into three divisions covering the areas of the Piedmont Plateau, the Appalachian Region, and the Coastal Plain. Investigations are in progress in all these districts, and important areas in each have been thoroughly studied. Reports and maps have been issued for Allegany, Garrett, and Cecil counties, while several others are ready for the press. In the conduct of the geological work the aid of numerous experts in various portions of the country has been sought, particularly in the study of the various groups of fossil plant and animal remains. A monograph on the Eocene deposits of the State has already been published, and a similar report on the Miocene deposits is now going through the press. Monographs on the Pliocene-Pleistocene, on the Devonian, on the Carboniferous-Permian, and on the Cretaceous deposits are now in process of preparation.

The topographic work has been continued in cooperation with the U. S. Geological Survey. The results of this work are presented to the public in the form of topographic and election-district maps, which show in a very detailed manner not only the relief of the land but all cultural features as
well. Maps of Allegany, Garrett, Harford, Cecil, Kent, Worcester, Prince George's, Calvert, and St. Mary's counties have already been issued. More than two-thirds of the State has now been surveyed on the scale of one mile to the inch.

Investigations have been conducted as heretofore on the terrestrial magnetism of the State, in cooperation with the Division of Terrestrial Magnetism of the U. S. Coast and Geodetic Survey; on the areal distribution of the various soil types, in cooperation with the Bureau of Soils of the U. S. Department of Agriculture; on the drainage and hydrographic features of the State, in cooperation with the Division of Hydrography of the U. S. Geological Survey; and on forestry, in cooperation with the Bureau of Forestry of the U. S. Department of Agriculture. The work in these lines follows the completion of the topographic maps in the same manner as the geological work, which is conducted independently by our own staff. The results of these investigations in each county are printed in the series of county reports.

The Highway Division of the Maryland Geological Survey is conducted under the immediate supervision of Professor Reid, although the strictly engineering work is directed by Mr. A. N. Johnson, who has several assistants under him. In this Division specifications for road construction are prepared for the various municipal authorities of the State, the Commissioners of many of the counties depending largely upon the services of the Division for all work in highway engineering. Tests are made of the materials used on both city streets and country roads, and much more intelligent methods of construction are beginning to prevail as a result. The city of Baltimore has for several years submitted to the Highway Division samples of vitrified brick and crushed stone which it proposed using; before the contracts were awarded, and the materials subsequently furnished were required to meet the specifications prepared. The aid which the Highway Division is rendering to the various public interests of the State is coming to be more fully appreciated year by year.

THE MARYLAND WEATHER SERVICE

The Maryland Weather Service has been in existence thirteen years, having been organized in May, 1891, under the joint auspices of the Johns Hopkins University, the Maryland Agricultural College, and the U. S. Weather Bureau. It was incorporated as an official organization by an Act of the General Assembly in 1892 which was approved by the Governor in April of that year. The State Service under this Act was permanently established at the Johns Hopkins University under the direction of a board of control, who are nominated by the heads of the three institutions above mentioned, and subsequently commissioned by the Governor. The appropriation for the maintenance of the Bureau has been $2,000 annually from the beginning,
the fund being employed mainly for investigations relating directly to the
climatology of the State. Professor Clark is the chief of the bureau.
The investigations of the Maryland Weather Service during the past year
have mainly centered around the study which is being given to the climate
of Baltimore by the meteorologist of the bureau, Dr. Fassig, and his assis-
tants. This work is now rapidly reaching completion and will be published
as a monograph during the coming year. It is planned to make the study
much more complete than has ever been given to a similar area.

THE MASON AND DIXON LINE RE-SURVEY

By an Act of the General Assembly of 1900, provision was made for the
re-survey and re-marking of the Mason and Dixon Line which had become
partially obliterated in the lapse of over a century since the boundary
between Pennsylvania and Maryland was first established. Many of the
monuments which marked the line had become destroyed or otherwise dis-
placed, and an appropriation of $5,000 was made on behalf of each of the
States of Maryland and Pennsylvania to re-locate and re-mark the line.
Professor Clark was appointed by the Governor Commissioner on behalf of
the State of Maryland, and since the year 1900 has been engaged with the
Commissioner on behalf of the State of Pennsylvania in carrying out the
provisions of the Act authorizing the survey. The work has been directly
in charge of an expert engineer detailed by the Superintendent of the U. S.
Coast and Geodetic Survey, his assistants being selected in part from Mary-
land and in part from Pennsylvania. The survey is now nearing completion
and a report will shortly be made by the Commissioners to the Governors
of the two States.

EXPOSITIONS

The Commissioners on behalf of the State of Maryland to the Buffalo and
Charleston Expositions, as well as the subsequently appointed Commissioners
to the St. Louis Exposition, requested Professor Clark to act as director of
and prepare the State's mineral exhibits for all three of these expositions.
At Buffalo and Charleston no provision was made for any other exhibit on
behalf of the State, and the sum of $7,500 was assigned for the geological
displays at both places. As the Charleston Exposition was to immediately
follow that at Buffalo, it admitted of the direct transportation of the Buffalo
exhibit to Charleston. This exhibit has formed the basis of a larger display
at St. Louis, for which the St. Louis Commissioners have likewise allotted
the sum of $7,500. These exhibits have attracted much attention from
geologists as well as the public generally. Numerous awards, including
many gold medals, have been given by the juries at all three of the
expositions.
Much aid has been rendered the State official organizations above mentioned by the chiefs of the various national scientific bureaus. Particular reference should be made to the cooperation granted by Hon. Charles D. Walcott, Director of the U. S. Geological Survey, Professor Willis L. Moore, Chief of the U. S. Weather Bureau, and Professor O. H. Tittmann, Superintendent of the U. S. Coast and Geodetic Survey, all of whom have cordially supplemented the work of the State bureaus in highly important ways. The work of the State organizations is in progress along so many lines that it affords admirable opportunities to the advanced students of the geological department to obtain much-desired practical experience both in the field and in the laboratory; at the same time the State has received a large return at little cost, so that the benefits are mutual.

Wm. Bullock Clark,
State Geologist and Director.
REPORT OF THE DEAN OF THE MEDICAL FACULTY

TO THE PRESIDENT:

I beg leave to submit the following report of the medical department for the session of 1903-04. The total number of students enrolled during the session as candidates for the degree of Doctor of Medicine was 276. Twenty-three of these students were women, the proportion of women students remaining as in former years at approximately eight to ten per cent. of the entire number. The total registration showed an increase of 19 over that at the beginning of the preceding session. In the entering class, however, the number of applicants received was smaller than in the preceding year. Ninety-five satisfactory applications were on file at the beginning of the year, but only eighty-two applicants formally matriculated. Of this number four were admitted to advanced standing as students in the second year and one to the third year, after passing satisfactory examinations upon the subjects taught in the preceding years. The number of students who matriculated in the first year was therefore seventy-seven as opposed to ninety-six in the session of 1902-03. All of these students presented diplomas of graduation from colleges in good standing. The various colleges whose graduates are represented in our list of students are tabulated in the twelfth annual catalogue and announcement.

The following instructors upon our staff were granted leave of absence during the year by the Board of Trustees:—Dr. H. T. Marshall was given permission to leave May 1 to join an expedition organized by the Department of Agriculture of the United States for the purpose of investigating certain diseases of live stock on the Western prairies. Dr. R. G. Harrison was granted leave of absence from March 15, and Dr. S. Rosenheim from April 25, to go abroad for special work. Dr. Stewart Paton was given leave of absence for the academic year 1904-05.

At the beginning of the session, October 6, 1903, we had the pleasure of listening to a lecture on "The Influence of Pasteur on Medical Science" by Dr. Christian A. Ilerter, one of the founders of the Ilerter Lectureship. In the Spring, April 12, 13, and 14, the first annual course of Ilerter lectures was delivered by Professor Paul von Ehrlich of the Royal Prussian Institute of Experimental Therapeutics. These lectures were given in German and were concerned with the general subject of Immunity. The special topics were: 1. The Mutual relations between toxine and antitoxine; 2. Physical Chemistry versus Biology in the doctrines of immunity; 3. Cytotoxines and cytotoxic immunity. The lectures were given...
in McCoy Hall and were attended not only by the staff and students of the department, but also by the general public and especially by many physicians from Baltimore and from various parts of the country. The audiences were large and the lectures most interesting and instructive.

During the year, a special committee appointed by the Faculty and consisting of Professor Kelly and Drs. Emerson and Harris made a report to the Advisory Board of the Medical Faculty upon the health of the students. This report is on file in the Dean’s office. In accordance with the recommendations of this committee, the Faculty requested the Board of Trustees to appoint an official Medical Adviser for the students. This request was granted by the Trustees March 7, and Dr. R. I. Cole was named as Medical Adviser for the current session. His duties, as defined by the resolution of the Board of Trustees, are as follows: “This officer is to have a definite hour for consultation with the medical students, is to be prepared to visit in their own homes, when called upon, such students as are unable to meet him at his consultation hour, and is to obtain, when necessary, the services of specialists for special examination and treatment.” The medical service thus provided for is free to the students, the salary of the Adviser being paid by the medical department of the university. Our experience has already demonstrated most strikingly the wisdom of this new departure. A considerable number of the students have availed themselves of the services of the Medical Adviser, and the prompt treatment thus obtained both in medical and surgical cases has been undoubtedly to their advantage. It is to be hoped that the services of the Adviser may be extended in the direction of protecting the students from any obviously unhygienic surroundings during their residence in Baltimore.

Another innovation of practical importance in the routine work of the department was the appointment of a special custodian for the animals used in the laboratories. The duties of this employee are to see that all animals used in the school are well housed and well fed during their confinement. By this arrangement the care of the animals, which formerly devolved upon the janitors in the different departments, is now centralized in one person. It is hoped that in this way the responsibility may be so fixed that all possibility of negligence in the treatment of these animals may be avoided.

The regular instruction in the undergraduate courses was carried on, it is believed, with the usual faithfulness and success. In the clinical years the rooms devoted by the hospital to purposes of instruction were somewhat less commodious than in former years owing to the construction of the new surgical building on the site of the former amphitheatre. This new building, which will be completed before the beginning of the session of 1904-05, will give greatly increased facilities for clinical instruction.

At the Commencement exercises in June, forty-five students were awarded the degree of Doctor of Medicine. Of this number the twelve whose records
were the highest for the entire four years, were nominated to the Trustees of the Johns Hopkins Hospital for appointment as House Officers for the ensuing year. The twelve students who won this honor are, in order of merit, as follows: J. R. Carr, Miss J. Hemenway, J. A. Caldwell, Jr., J. V. Reed, E. Sachs, W. V. Brem, Jr., W. H. Manwaring, H. Z. Giffin, O. H. Schell, H. S. Greenbaum, R. G. Washburn, and H. W. Marshall. Owing to the fact that some of this number had accepted hospital positions elsewhere or had made other plans, the following students, in order of merit, were nominated to fill possible vacancies: C. M. Remsen, M. B. Bonta, and D. B. Casler.

In addition to the graduates who received these nominations, the following members of this class have obtained positions in hospitals or medical schools:

J. H. Bacon, Pathologist, The Lakeside Hospital, Cleveland, O.
R. B. Bean, Assistant in Anatomy, Johns Hopkins University.
J. M. Bergland, Interne in Obstetrics, Johns Hopkins Hospital.
A. Egdahl, Instructor in Bacteriology and Pathology, State University of Iowa, Iowa City.
H. G. Garwood, Resident Physician, Minnequa Hospital, Pueblo, Colo.
W. R. Kellogg, Resident Physician, Seattle General Hospital, Seattle, Wash.
J. M. Love, Resident Physician, Franklin Square Hospital, Baltimore.
W. H. Manwaring, Fellow and Assistant in Pathology, University of Chicago, Chicago, Ill.
J. F. Morrison, Resident Physician, Kings County Hospital, Brooklyn.
J. H. Randolph, Asst. Resident Physician, Sheppard and Pratt Hospital, Towson, Md.
W. G. Ricker, Pathologist, Montreal General Hospital, Canada.
E. Sachs, Resident Physician, Mt. Sinai Hospital, New York.
O. H. Schell, Resident Physician, Mt. Sinai Hospital, New York.
H. R. Stone, Resident Physician, Hudson St. Hospital, New York.
G. L. Taneyhill, Jr., Externe, Johns Hopkins Hospital and Dispensary.
W. J. Vogel, Resident Physician, St. John's Riverside Hospital, Yonkers, N. Y.
L. S. Weaver, Resident Physician, Rhode Island General Hospital, Providence, R. I.
W. Wilson, Professor of Anatomy, Fort Worth Medical College, Fort Worth, Texas.
The special courses offered to graduates in medicine during May and June, were attended by sixty-three physicians. In addition, twenty-six physicians were in attendance for varying periods upon the regular courses given during the year. The enrollment of medical graduates for the entire year was, therefore, eighty-nine, and the total number of medical students, graduate and undergraduate, amounted to three hundred and sixty-five. It will be seen from this summary that the number of medical graduates in attendance during the year was somewhat less than last year, as was expected from the changes in the character of the courses, to which attention was called in the last annual report.

As usual, a number of the instructors kindly volunteered to give special lectures and demonstrations in the afternoons and evenings during the spring course to graduates. No extra charge was made for this course of lectures. Two of the former members of the medical department, Dr. J. G. Clark, Professor of Gynecology, University of Pennsylvania, and Dr. H. A. Christian, Instructor in Pathology, Harvard Medical School, also consented to give lectures in this course.

The increasing demands made upon the teaching staff by the large classes of undergraduates has added considerably to the difficulty of organizing and carrying through successfully these special courses to graduates in medicine. Moreover, it has become apparent that the graduates from the average medical school of the country are better prepared in laboratory and clinical methods than in former years. To suit their needs there is a demand for individual instruction of an advanced or special character, rather than for class courses of a more or less elementary nature. For these reasons it has seemed to some of the members of the Medical Faculty that it might be desirable to abandon our special class courses offered in the spring to graduates in medicine, and, in place of these courses, to permit each department to receive throughout the term a limited number of graduates, for a shorter or longer time, accepting only those applicants who are capable of doing special work, clinical or laboratory, and who can pursue their courses under the individual guidance of the instructors. The general question thus suggested will be carefully considered by the advisory Board of the Medical Faculty during the coming session.

The following resignations are reported:

Dr. J. B. Briggs, Jr., Assistant in Medicine, resigned October 29, 1903.

Dr. Reid Hunt, Associate Professor of Pharmacology, resigned December 3, 1903, to accept the position of Pharmacologist to the Bureau of Public Health at Washington, D. C.

Dr. E. G. Martin, Instructor in Physiology, resigned August 16, 1904, to accept a position in the physiological department of Purdue University.

Dr. A. G. Pohlman, Instructor in Anatomy, resigned September 10, 1904,
to accept the position of Associate Professor of Anatomy in Indiana University.

The following students withdrew during the year on account of ill-health:

R. T. Earle of the first year class, A. H. Beifeld of the second year, Misses M. J. Ross and N. L. Winn of the third year, and Mr. H. F. Pillow of the fourth year. I regret also very much to announce that two of the medical students enrolled during the past session have died during the summer,—Mr. A. W. Davis of the third year class, and Mr. F. A. Rockel of the first year.

W. H. Howell,
Dean.
ABSTRACT OF THE REPORT OF THE JOHNS HOPKINS PRESS

The several serials have been continued through the year, as follows:

Of the Studies in Historical and Political Science, edited by Dr. J. M. Vincent, Dr. J. H. Hollander, and Dr. W. W. Willoughby, the twenty-first series has been completed. It contains 580 pages, octavo. The twenty-second series is now in progress. The issues have included the English Statutes in Maryland, a Bibliography of American Trade-Union Publications, White Servitude in Maryland, Switzerland at the Beginning of the Sixteenth Century, Political History of Reconstruction in Virginia, Foreign Commerce of Japan since the Restoration, and a Memorial of Dr. Amos G. Warner, including his Lay Sermons.

Of the American Journal of Mathematics, edited by Professor Morley, the twenty-sixth volume has been completed. The volume contains 418 pages, quarto. A portrait of Professor Noether was issued with the volume.

Of the American Chemical Journal, edited by President Remsen, volume thirty-one has been completed, and volume thirty-two is in progress.

Of the American Journal of Philology, edited by Professor Gildersleeve, volume twenty-four has been completed, and volume twenty-five is in progress.

Of the Modern Language Notes, edited by Professor Elliott, volume nineteen is in progress.

Of the Journal of Terrestrial Magnetism and Atmospheric Electricity, edited by Dr. L. A. Bauer, volume eight has been completed and volume nine is in progress.

Nos. 166 to 172 of the University Circulars have been issued since the last report. These Circulars are now issued in the octavo form and as part of the official publications of the University.

The twenty-eighth Report of the President was issued in January, the Catalogue of the Medical Department in March, and the Register in June.

In the Critical Edition of the Hebrew Text of the Old Testament, under the editorial direction of Professor Haupt, the Book of Kings has appeared.

The publication of the first series of Reprints of Economic Tracts, under the editorial direction of Dr. Hollander, was completed during the year. Four tracts (one by Ricardo, one by Malthus, one by Sir Edward West, and one by Lange) have appeared. A second series will be issued.

In January, 1904 a critical edition by Dr. C. C. Marden of the Poema de Fernan Gonçalaz was published. The volume contains 284 pages, octavo.

The Press has undertaken the publication in the United States of Lord Kelvin’s Lectures on Molecular Dynamics and the Wave Theory of Light
(716 pages, octavo). The volume is founded on the lectures given here in 1884, and has just been issued by the Cambridge University Press.

Of the Johns Hopkins Hospital Reports, volume twelve is in press.

Of the Bulletin of the Johns Hopkins Hospital, volume XV is in progress.

The system of exchanges has been conducted as in previous years.

There have been received, in accordance with the regulations, 150 copies of the dissertations accepted for the degree of Doctor of Philosophy, from:

Barnes, J.—On the Analysis of Bright Spectrum Lines.

Blake, F. R.—The So-called Intransitive Verbal Forms in the Semitic Languages.

Brooks, C. E.—Orthic Curves or Algebraic Curves which satisfy Laplace's Equation in Two Dimensions.

Buffum, D. L.—Le Roman de la Violette.

Converse, H. A.—On a System of Hypocycloids of Class Three inscribed to a given 3-Line and some Curves connected with it.

Curdy, A. E.—La Folie Tristan.

Doughty, H. W.—Phenylsulphoneorthocarbonic Acid and related Compounds.


Hattori, Y.—The Foreign Commerce of Japan since the Restoration.

Hullihen, W.—Antequam and Priusquam.

Hun, J. G.—On Certain Invariants of Two Triangles.

Ishizaka, M.—Christianity in Japan.

Martin, E. G.—An Experimental Study of the Rhythmic Activity of Isolated Strips of the Heart-Muscle.

Miller, R. D.—Secondary Accent in Modern English Verse (Chaucer to Dryden).

Mulford, R. J.—The Political Theories of Alexander Hamilton.

Rabinovitch, I. E.—Foundations of Euclidian Geometry viewed from the Standpoint of Kinematics.

Seidell, A.—The Precipitation of Zinc by Manganese Peroxide with special reference to the Volhard Method of Determining Manganese.

Wharey, J. B.—A Study of the Sources of Bunyan's Allegories with special reference to Deguileville's Pilgrimage of Man.

Yamaguchi, K.—An Investigation of the Hydrated Oxides of Manganese derived from Electrolytically-prepared Permanganic Acid.
The number of bound volumes in the library is 118,390; the accessions during the year amounted to 7,600.

The number of pamphlets and unbound volumes received during the year exceeds 5,000. The total number of pamphlets is estimated at 100,000. Over 1,500 serials are regularly received.

The library has been the recipient of several important donations during the year.

The library of Professor Alfred William Stratton, a graduate of the university in 1895, who died in India, August 23, 1902, while holding the position of Principal of the Oriental College at Lahore, was presented by his widow, Mrs. Anna Booth Stratton. The collection numbers 386 books and pamphlets, and is composed of works in Sanskrit and comparative philology. It has been placed in the Sanskrit Seminary Room.

Mr. Abram G. Hutzler gave five hundred dollars for the purchase of economic classics. Over two hundred volumes, selected by Dr. Hollander, have already been received.

An important gift of books was received through Professor Ames from a person whose name has not been announced. Among these are the early volumes of the St. Petersburg Academy and of the Bologna Institute; 55 volumes of the Journal de Physique, first called Observations sur la Physique (1771-1802); 106 volumes of the Acta Eruditorum, continued as Nova Acta Eruditorum, a review by months of new works published in Europe (1699-1757); 52 volumes of the Archives des Découvertes, an annual review of discoveries and inventions (1809-1841); and 109 volumes of the Amsterdam Academy of Sciences (1699-1757).

Mr. Leopold Strouse, whose death occurred February 22, 1904, left $2,000 for the purchase of books for the library bearing his name. The Strouse collection now contains about 2,500 volumes.

Mr. Marburg has renewed his annual gift for the purchase of physical books, and purchases have been made by Professor Ames.

A large number of works on radiation and spectroscopy have been added to the Rowland Memorial Library. The collection now includes about 1,300 volumes.

To the Sutphen collection have been added the set of L'Année Épigraphique to date, fifteen volumes; two new Corpora of Inscriptions, together with a number of other works.
Other noteworthy gifts have been: From President Remsen, thirteen volumes in chemistry.

From the Duc de Loubat, two additional volumes reproducing Codex Vaticanus 3773, a reproduction of the Codex Magliabecchiano XIII.3, and two volumes dealing with American Languages and Antiquities.

From President Gilman, a number of miscellaneous volumes, among them an edition of the Old and New Testaments in Ancient and Modern Syriac.

From Professor B. L. Gildersleeve, thirteen miscellaneous volumes.

From the Prince of Monaco, six volumes giving the results of his marine investigations, and six bulletins of the Musée Océanographique de Monaco.

From the Earthquake Investigation Committee of Japan, nine volumes of its publications.

From Count Angelo de Gubernatis, his Su le orme di Dante.

From Lady Meux, Palladius, The Book of Paradise, two quarto volumes.

From Rev. George Drenford, a number of miscellaneous volumes, among which are the New Testament in Hindustani; a book of Russian Law; the Breviarium Romanum, in four volumes.

From the New York Chamber of Commerce, sixteen volumes.

From Professor Howard A. Kelly, the first edition of Boswell's Life of Johnson, 1791.


Professor Abbe has added a number of volumes to the meteorological collection bearing his name.

Mr. Henry Holt has given his publications as usual.

The usual academic publications have come from foreign and American universities and academies.

A list of donations for the year is appended.

The general library has been in charge of Dr. M. L. Raney, the assistant librarian, who entered on his duties at the opening of this year.

The classical library has been in charge of Dr. C. W. E. Miller, under the supervision of Professor Gildersleeve.

The modern language library has been in charge of Dr. Keidel, under the supervision of Professors Wood and Elliott.

The English library has been under the direction of Professor Bright.

The historical collection has been in charge of Miss Duran, under the direction of Dr. Vincent.

The chemical library has been in charge of Dr. H. G. Jones, under the direction of President Remsen.

The biological library has been under the direction of Professor Brooks and Dr. Andrews, with a library attendant.

The geological library has been in charge of Dr. Mathews, under the supervision of Professor Clark.
The astronomical library has been in charge of Dr. Hulburt.
The physical and mathematical collections have been under the supervision of Professor Ames.
The library of philosophy and psychology has been in charge of Professor Baldwin.
The library of the medical department has been under the supervision of Professor Howell, with an attendant in charge, and with the cooperation of Miss Blogg, who is in charge of the hospital library and of the university books there deposited.
During the year the New Book Department has purchased 1,781 volumes of the estimated value of $3,500. Since the opening of the department, over 109,000 volumes of the estimated value of about $175,000 have been received for inspection.

N. Murray,
Librarian.

1904, October 1.
GIFTS TO THE LIBRARY

ABBÉ, CLEVELAND. A large number of volumes for the Abbe Meteorological Library.

ALASKA PACKERS ASSOCIATION. Davidson, G. The Alaska Boundary. San Francisco, 1903. Q.

AMES, O. (Author.) The Orchid Flora of Southern Florida. Cambridge, 1904. O.

ANDREWS, E. A. Garbe, R. Die indischen Mineralien. Leipsic, 1882. O.


ANGSTROM, K. (Author.) Energy in the Visible Spectrum of the Hefner Standard. 1903. Q.

ARNAU, R. R. (Author.) Influencia en la Medicina del Carácter de los Pueblos Puerto Rico, 1904. S.


AUSTRALIA, WEST, GOVERNMENT OF. Twentieth Century Impressions of Western Australia. Perth, 1901. F.


BATCHELLOR, A. S. (Author.) The Ranger Service in the Upper Valley of the Connecticut, etc. Concord, 1903. O.


Annual Report of the Department of Public Works. Cleveland, 1902. O.


BERGENS MUSEUM. Five publications.

BERLIN ROYAL LIBRARY. Verzeichnis der aus der neu erschiener Literatur erworbenen Druckschriften. Berlin, 1901 and 1902. 2 vols. O.

BERLIN, UNIVERSITY OF. Two hundred and eighty-one academic publications.


BESANÇON, UNIVERSITY OF. Two academic publications.

BODLEIAN LIBRARY. Six academic publications, 1903. D.


BORDEAUX, UNIVERSITY OF. One hundred and ninety-two academic publications.


BOWDITCH, V. Y. (Author.) Two recent publications.


BRYN MAWR COLLEGE. Publications for the year.

BURNHAM, A. A. Consular Reform and Commercial Expansion. Chicago, 1903. O.


CORN, UNIVERSITY OF. Thirty-two academic publications.

99
 CAMBRIDGE (Mass.) CITY CLERK. Annual Documents, City of Cambridge. (Boston, 1904). O.


 CARNegie INSTITUTE. Publications for the year.

 CATHOLIC UNIVERSITY OF AMERICA. Publications for the year.


 CHARLESTON (S. C.), MAYOR OF. (Hon. J. A. Smyth.) Year book, 1903. (Charleston, 1904.) O.

 CHICAGO, UNIVERSITY OF. Thirty-six academic publications.

 CHICKERING AND SONS. Commemoration of the Founding of the House upon the Eightieth Anniversary. Boston, 1904. O.

 CHRISTIANIA OBSERVATORY. Schroeter, J. F. Untersuchung 0. d. Eigenbewegung von Sternen. Christiania, 1903. F.

 CINCINNATI, UNIVERSITY OF. Ten academic publications.

 CLERMONT-FERRAND, UNIVERSITY OF. Two academic publications.

 COLUMBIA UNIVERSITY. Fifty-five academic publications.


 CONNECTICUT, STATE BOARD OF EDUCATION. Connecticut Public Library Documents. Boston, 1904. O.

 COPENHAGEN, UNIVERSITY OF. Twenty academic publications.

 CORNELL UNIVERSITY. Twenty-one academic publications.


 DEFOREST, R. W. First Report of the Tenement House Department of the City of New York. 2 vols. O.

 DEWEY, D. R. Report of Committee on Relations Between Employer and Employee. Boston, 1904. O.

 DIXON, UNIVERSITY OF. Twenty-three academic publications.

 DISTRICT OF COLUMBIA SOCIETY OF COLONIAL WARS. Memorial Papers. (Washington, 1903.) Q.

 DIXON, T., JR. (Author.) The Leopard's Spots. Leipzig, 1903. 2 vols. S.

 DRAGOM, L. M. (Author.) La Republica Argentina y el caso de Venezuela. Buenos Aires, 1903. Q.

 DRENFORD, G. New Testament in Hindustani. 1875. O.


 Pobredonoszev, E. Kursus Grashchdauskago Prava. St. Petersburg, 1895. 3 vols. in one. O.

 DERYTUS-BRISAC, E. (Author.) Le Chef des Maximes de la Rochefoucauld. Paris (1904). D.

 ELLWOOD, C. A. (Author.) Condition of the Almshouses of Missouri. 1904. O.

 ENGLISH BOARD OF EDUCATION. Reports from University Colleges, 1903. London, 1904. O.

 ERLANGEN, UNIVERSITY OF. One hundred and eighty-seven academic publications.

 ESSEX INSTITUTE. A copy from the original broadside of an Order of a General Court held at Boston the 3rd of May, 1675.

 FIELD COLUMBIAN MUSEUM. Publications for the year.

 FERIBROU, UNIVERSITY OF. One hundred and seventy-one academic publications.

Gifts to the Library


FUCHS, F. (Author.) Diagnosik der wichtigsten Nervenkrankheiten in medico-technischen Behandlung. Bonn, 1897. D.


GERMAN COMMISSION, WORLD'S FAIR, ST. LOUIS. Seven publications.

GES, W. J. (Author.) Biochemical Researches, vol. 1. (New York) 1903. O.

GILDEBERG, B. L. Sixteen miscellaneous publications.

GILMAN, E. S. (Author.) Manual of Italian Renaissance Sculpture. Boston, 1904. D.

GILMAN, D. C. The Old and New Testament in Ancient and Modern Syriac published by the American Missionaries at Urumiah, Persia, in 1832 and 1846. 2 vols.; and a large number of other volumes.


GÖTTINGEN, UNIVERSITY OF. Two hundred and twenty-two academic publications.

GRAZ, UNIVERSITY OF. Academic publications for the year.


GREEN, S. A. Suffolk Deeds. Libor XIII. Boston, 1903. O.

GREENWICH RO YAL OBSERVATORY. Magnetic and Meteorological Observations. Edinburgh, 1902 and 1903. F.

GRIEPZOHL, UNIVERSITY OF. Two hundred and seventy-three academic publications.

GROSNOE, UNIVERSITY OF. Twelve academic publications.

GUBNATHI, COUNT A. DE. (Author.) Su le Orme di Dante. Roma, 1901. O.

HALLOCK-GREENEWALT, MARY. (Author.) Pulse and Rhythm. 1903. O.

HAMLIN, A. C. (Author.) Three recent publications.


HARVARD COLLEGE. Publications for the year.

HARVARD COLLEGE: ASTRONOMICAL OBSERVATORY. Publications for the year.

HARVARD COLLEGE: MUSEUM OF COMPARATIVE ZOOLOGY (Prof. A. Agassiz, Director). Publications for the year.

HAVANA, UNIVERSITY OF. Two academic publications.

HAYWOOD, M. DE L. (Author.) Governor William Tryon. Raleigh, 1903. Q.

HOPPLI, ULRICO. (Publisher.) Five publications.

HOLT, HENRY, & CO. Their publications for the year.

HOC, MRS. JULIAN WARD. Howe, M., and Hall, F. H. Laura Bridgman. Boston, 1903. O.

HOLWYN, R. R. BISHOP. (Author.) Latest Lights on the Cabot Controversy. Toronto, 1903. O.

HUBBACH, C. H. (Author.) The Trans-Isthmian Canal. Austin, 1904. O.

HUTCHER, A. G. Library of Economic Classics. (See p. 96.)

ILLINOIS STATE LIBRARY. Catalogue of Library. Danville, 1903. O.

IMPERIAL JAPANESE COMMISSION (St. Louis). Japan in the Beginning of the 20th Century. (Tokyo) 1904. O.

INDIA, GOVERNMENT OF. Account of the Operations of the Great Trigonometrical Survey of India. v. 17. Dehra Dun, 1901. F.


JEWISH PUBLICATION SOCIETY OF AMERICA. Adler, C., ed. The Voice of America on Kishineff. Philadelphia, 1904. D.
JOHN CERRAR LIBRARY. List of Books on Industrial Arts. Chicago, 1904. Q.
KIEL, UNIVERSITY OF. One hundred and sixty-seven academic publications.
KLEIST, J. A. (Trans.) Kegi, Grammar of Classical Greek and Greek Exercise Book. St. Louis, 1902-03. O.
KOKLIEK, A. (Author.) Die Entwicklung und Bedeutung des Glaskörpers. Leipzig, 1894. O.
KÖNIGSBERG, UNIVERSITY OF. Eighty-three academic publications.
KYOTO, IMPERIAL UNIVERSITY. Publications for the year.
LANDI PRESS. An Egyptian Alphabet for the Egyptian People. Florence, 1904.
2 vols. O.
LAVALL UNIVERSITY. Publications for the year.
LEIPZIG, UNIVERSITY OF. Five hundred and thirteen academic publications.
LELANT STANFORD JUNIOR UNIVERSITY. Publications for the year.
LEVASSIEU, E. (Author.) Le Salariat. Paris, 1903. O.
LEYDEN, UNIVERSITY OF. Twenty-nine academic publications.
LICK OBSERVATORY. Publications. Sacramento, 1903. Q.
LIEBERHOLZ, D. Two recent publications. 1902-03. O and Q.
LILLES, UNIVERSITY OF. Sixty-seven academic publications.
Q.
LOUVAIN, UNIVERSITY OF. Fifteen academic publications.
LOWELL, P. (Author.) The Cartouches of Mara. (Boston, 1903.) O.
LUND, UNIVERSITY OF. Fourteen academic publications.
LYONS, UNIVERSITY OF. Two hundred and thirty-nine academic publications.
MacKAIL, L. L. (Author.) Briefwechsel zwischen Goethe u. Amerikanern. O.
O.
Q.
MANILA, BUREAU OF GOVERNMENT LABORATORIES. Publications. Manila, 1903, 1904.
MARSBURG, THEODORE. (See p. 95.)
MARYLAND STATE LIBRARY, ANNAPOLIS, Md. Laws of the State of Maryland Made and Passed in 1904. Baltimore, 1904. O.
Journal of Proceedings of the Senate of Maryland, 1904. Annapolis, 1904. O.
MASSACHUSETTS, COMMONWEALTH OF. Acts and Resolves of the Province of Massachusetts Bay. Vol. XL Boston, 1903. Q.
Alabama Official and Statistical Register, 1903. Montgomery, 1903. O.
MICHIGAN STATE LIBRARY. Historical Collections. Lansing, 1903. O.
MICHIGAN, UNIVERSITY OF. Thirteen academic publications.
MISSOURI, UNIVERSITY OF. Publications for the year.
MOLKE, E. (Author.) Tetonish. Tacoma, n. d. S.
MONFALETT, D. (Author.) Études d'Anatomie Pathologique et de Bactériologie Comparée. Santiago, 1901. Q.
Bibliographie Abrégée des Infections. Paris, 1903. O.
MONACO, PRINCE ALBERT 1st DE. (Author.) Resultats des Campagnes Scientifiques. Fac. 23-26. Monaco, 1904. F.

MONTESIROL, UNIVERSITY OF. Anglias. Montevideo, 1904. O.

MONTPELLIER, UNIVERSITY OF. One hundred and thirty-seven academic publications.

MUSÉE TRÉLIER. Archives and Catalogues. Haarlem, 1904. Q.

NANCY, UNIVERSITY OF. Fifty-three academic publications.

NEBRASKA, UNIVERSITY OF. Publications for the year.

NEW MEXICO, LEGISLATIVE ASSEMBLY. Acts—Thirty-fifth Session. Santa Fe, 1903. O.

NEW YORK STATE LIBRARY. Forty-four documents.

NEW YORK CHAMBER OF COMMERCE. Sixteen publications.

NEWSON, J. F. (Author.) A Geologic and Topographic Section Across Southern Indiana. Indianapolis, 1903. O.

NORWEGIAN METEOROLOGICAL INSTITUTE. Steen, A. S. The Diurnal Variation of Terrestrial Magnetism. Christiania, 1904. Q.

OBERSIN COLLEGE. Inauguration of President King. Oberlin, 1903. O.

ONTARIO, MINISTER OF EDUCATION. Documentary History of Education in Upper Canada. Toronto, 1904. O.

PARIS, UNIVERSITY OF. Three hundred and twenty-one academic publications.

PEABODY INSTITUTE. Peabody Institute Library. Second Catalogue. Part VII. S-T.

Baltimore, 1904. Q.

PENNSYLVANIA STATE LIBRARY. Twenty official publications.

PENNSYLVANIA, UNIVERSITY OF. Publications for the year.


PHILIPPINE EXPOSITION BOARD. Description of the Philippines. Manila, 1903. O.

POTTIER, UNIVERSITY OF. Thirty-two academic publications.


PRINE, CORNELIA. Prine, T. Notes Relative to Certain Matters Connected with French History. New York, 1903. 2 vols. O.

PRINCE, J. D. (Author.) Prince, J. D. and Speck, F. G. Glossary of the Mohegan-Pequot Language. Lancaster, 1904. Q.


PUTNAM, HERBERT. A List of Books on the Philippine Islands. Washington, 1903. Q.

PYSHON, E. (Author.) Ten publications.

QUEEN & CO. Manual of Engineers and Surveyors' Instruments. Philadelphia. O.

RAND, B. (Comp.) Selected Works on Economics in the English Language. Boston, 1904. Q.

REBESM, IRA. A number of volumes on chemistry.

RENKE, UNIVERSITY OF. Twenty-two academic publications.

RICHARDS, J. W. (Author.) The Thermochemistry of the Theory of Electrolytic Dissociation. n. p. (1903) O.

Bancroft, W. D. Present Status of the Electrolytic Dissociation Theory. n. p. (1903) O.

RICHARDS, L. S. (Author.) New Propositions in Speculative and Practical Philosophy (Fylngham) 1903. O.

RICHARDSON, L. J. Dedication of the Greek Theatre. (University of California.) Berkeley, 1903. O.

ROGERS, MRS. FAIRMAN. F(airman) R(ogers), 1833-1900. Philadelphia, 1903. O.

ROSENHART, J. G. (Author.) American History from German Archives. Lancaster, 1904. O.

The Earl of Crawford's MS. History in the Library of the American Philosophical Society. 0.

Memoirs of the Earl of Crawford. 1904. O.


SMILEY, A. E. Ninth Annual Meeting of the Lake Mohonk Conference. (N. Y., 1903.) O.

SMITH, J. D. (Author.) Enumeratio Plantarum Guatemalensium. Pars VI. Oquawka, 1903. O.

SMITH, K. F. A number of works in Greek and Latin literature.

SMITH, Mrs. M. F. Ballou, A., editor. History and Genealogy of the Ballou. (Providence, 1888.) O.

South Australia, Department of Mines. Review of Mining Operations. Adelaide, 1904. O.

SPEED, Thomas. (Author.) Who Fought the Battle? n. p. (1904.) Q.

STARKEY, H. M. (Author.) Two recent publications.


STRAITON, Mrs. A. B. Library of Professor Alfred William Stratton. 388 volumes, bound and unbound. (See p. 96.)

STROUSE, LEOPOLD. (See p. 96.)

Tennessee, University of. Report of the Lectures and Addresses at the Summer School of the South, 1903. F.

TERQUEM, E. Exposition de la Librairie Francaise. Saint Louis, 1904. Q.


Tokyo, Imperial Earthquake Investigation Committee. Publications in Foreign Languages. No. 15. Tokyo, 1904. Q.

Toronto, University of. Twenty-two academic publications.

TOULOUSE, University of. Eighty-nine academic publications.

TOEKER, W. G. (Author.) Food Adulteration. 1903. D.

TUBRINGEN, University of. Eighty academic publications.

Utrecht, University of. Forty-one academic publications.


VIONAUD, H. (Author.) La Route des Indes et les Indications que Toscanelli Aurait Fournies a Colomb. Paris, 1903. Q.

VOX, R. J. (Editor.) Grimm, Kinder- und Hausmärchen. New York, 1903. D.

Nollen, J. S. A Chronology and Practical Bibliography of Modern German Literature. Chicago, 1903. D.

WALDRYER, W. Gedächtnissrede auf Rudolf Virchow. Berlin, 1903. Q.


Welcome Chemical Research Laboratories. Six academic publications.

Wesleyan University Library. 1763-1903. Wesley Bicentennial. Wesleyan University, Middletown, 1904. O.


WILLIAMS, J. W. (Author.) Two recent publications.

WILSON, H. L. (Editor.) D. Iuni Juvenalis Saturarum Libri V. Boston, 1903. D.

Wisconsin, University of. Programs, etc., of the celebration of the fiftieth anniversary. Other academic publications.
Gifts to the Library

Yale University. The bicentennial publications of the university and a number of other works.


Reports and other current publications have been received from the societies and institutions named below, not including catalogues, etc., received in regular exchange:

American Bar Association; American Board of Commissioners for Foreign Missions; American Climatological Association; American Institute of Mining Engineers; American Medical Association; American Museum of Natural History; American Society of Heating and Ventilating Engineers; Australasian Association for the Advancement of Science; Belleville Public Library; Boston Athenaeum; Boston City Auditor; Boston Registry Department; Boston Executive Department; Boston General Theological Library; Boston Museum of Fine Arts; Boston Public Library; Boston School Committee; Boston Statistics Department; British Association for the Advancement of Science; Buenos Aires, Museo Nacional; Buffalo Public Library; Bureau of Navigation, Department of Commerce and Labor; Burlington Free Public Library; Canada, Royal Society; Canada Geological Survey; Canton Company (Baltimore); Carnegie Free Library (Allegheny); Carnegie Free Library (Bradford); Carnegie Institution (Washington); Carnegie Museum (Pittsburgh); Chicago Civil Service Commission; Chicago, Department of Public Works; Chicago Historical Society; Chicago Public Library; Cincinnati Chamber of Commerce; Cincinnati Museum; Cincinnati Public Library; Cleveland Public Library; Colorado Fuel and Iron Company; Columbus Public School Library; Connecticut, Bureau of Labor Statistics; Dayton Public Library; Drexel Institute; Enoch Pratt Free Library; Friends' Free Library (Germanatown); Guy's Hospital; Haverhill Public Library; Holland, Minister for Colonies; Illinois, Bureau of Labor Statistics; Illinois Free Employment Office; Illinois State Historical Society; Indiana Academy of Science; Indiana, Department of Geology; Indiana Medical Society; Iowa Academy of Sciences; Iowa Historical Society; Japan, Medical Bureau of the Navy Department; Jersey City Free Public Library; Kansas Historical Society; Kodaikanal and Madras Observatories; Legislative Library (Halifax); London Pathological Society; Madison Free Library; Maryland Bureau of Statistics and Information; Maryland Historical Society; Maryland, School for the Deaf and Dumb; Massachusetts, Board of Education; Massachusetts, Board of Railroad Commissioners; Massachusetts, Bureau of Statistics of Labor; Massachusetts Commissioner of Public Records; Massachusetts, Gas and Electric Light Commissioners; Massachusetts State Board of Charity; Massachusetts State Board of Health; Metropolitan Museum of Art; Metropolitan Water and Sewerage Board; Michigan Bureau of Labor; Milwaukee Public Museum; Missouri Botanical Garden; Missouri Bureau of Geology and Mines; National Civic Federation; National Civil Service Reform League; National League for the Protection of the Family; National Sound Money League; New Bedford Free Public Library; New Hampshire State Library; New Jersey, Bureau of Statistics; New Jersey, Historical Society; New York Chamber of Commerce; New York City, Board of Education; New York City, Charity Organization Society; New York City, Department of Finance; New York Civil Service Reform Association; New York Educational Alliance; New York Historical Society; New York Mercantile Library; New York Society Library; New York State Board of Charities; New York State Commission in Lunacy; New York State Department of Labor; Newark Free Public Library; Newberry Library; Newton Free Library; Niagara Falls Public Library; North Carolina Insurance Commission; Ohio Board of Charities; Ohio Chief Inspector of Mines; Ohio Geological Survey; Ontario Department of Agriculture; Pennsylvania, Board of Commissioners of Public Charities; Philadelphia, City Controller; Philadelphia Free Library; Philadelphia Commercial Museum; Philadelphia, Department of Public Health; Providence Athenaeum; Providence Public Library;
Rhode Island Historical Society; Saint Louis Mercantile Library; San Fernando Observatory; Smithsonian Institution; Syracuse Public Library; Tasmania Geological Survey; Union League Club (Chicago); Union League Club (New York); United Hebrew Charities of New York; University Club (New York); Victoria Department of Mines; West Virginia Geological Survey; Wilmington Institute Free Library; Wisconsin Academy of Sciences; Wisconsin Building and Loan Association; Wisconsin Commissioner of Banking; Wisconsin Geological Survey; Wisconsin Historical Society.

The university is indebted, as in previous years, for many and valuable gifts from the Departments at Washington.
REPORT

OF THE PRESIDENT OF

THE JOHN HOPKINS UNIVERSITY

Baltimore, Maryland

1905

BALTIMORE
THE JOHN HOPKINS PRESS
1905
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TREASURER OF THE UNIVERSITY
Charles J. Meyer
REPORT

To the Trustees of
The Johns Hopkins University:

Gentlemen:

I have the honor to submit to you my report for the last academic year, extending from September 1, 1904, to August 31, 1905.

Changes in the Board

Mr. Miles White, Jr., was elected a member of the Board of Trustees at the December meeting, and in January was appointed chairman of the Finance Committee.

On the ninth of January, Mr. William H. Buckler became a member of the Board, and was subsequently elected Secretary.

Mr. John Gill of R, who had been a member of the Board and of the Finance Committee since June, 1901, presented his resignation late in the year. No action was taken by you until October fifth, when the resignation was accepted with regret.

Recent appointments

The new appointments and promotions in the faculties which have been made for the coming year are mentioned below:
In the Philosophical Faculty:

To be Professors:

James W. Bright, Ph. D., English Literature (on the Caroline Donovan Foundation).
C. Carroll Marden, Ph. D., Spanish.
John M. Vincent, Ph. D., European History.
Westel W. Willoughby, Ph. D., Political Science.

To be Associate Professor:

James C. Ballagh, Ph. D., American History.

To be Associates:

David M. Robinson, Ph. D., Classical Archeology.
Charles K. Swartz, Ph. D., Geology and Paleontology.

To be Assistants:

William Kirk, Ph. D., Political Economy.
Robert L. Ramsay, Ph. D., English.

To be Director of the Gymnasium:

Ronald T. Abercrombie, M. D.

In the Medical Faculty:

To be Professors:

Lewellys F. Barker, M.D., Medicine.
William S. Thayer, M.D., Clinical Medicine.

To be Associate Professor:

Florence R. Sabin, M. D., Anatomy.

To be Associates:

William S. Baer, M. D., Orthopedic Surgery.
Thomas R. Boggs, M. D., Medicine.
Charles H. Bunting, M. D., Pathology.
Richard H. Follis, M. D., Surgery.
William W. Ford, M. D., Bacteriology.
J. Morris Slemons, M. D., Obstetrics.
George Walker, M. D., Surgery.

To be Instructor:

J. Hall Pleasants, M. D., Medicine.

To be Assistants:

Francis C. Goldsborough, M. D., Obstetrics.
Robert Retzer, M. D., Anatomy.
George H. Whipple, M. D., Pathology.
The appointment of Professor Bright to be Caroline Donovan Professor of English Literature is especially noteworthy. For some time past efforts have been made to find the right man for this chair. The selection of Dr. Bright was finally recommended to you by the Academic Council. It is understood that he will in the future lay more emphasis on the literary side of English. It is believed that the appointment is a just recognition of the valuable services that have been rendered by Dr. Bright for years past, and it is gratifying that the Caroline Donovan Chair, so long vacant, is at last so worthily filled. It is intended to make at least one additional appointment in English, and that the appointee shall be one especially devoted to English Literature as distinguished from English Philology, though it is not intended by this to intimate that a sharp line of distinction can be drawn between these subjects.

The most important event of the year, so far as the medical department is concerned, was the resignation of Dr. William Osler, who had been since the opening of the medical school Professor of Medicine. He resigned to become Regius Professor of Medicine in the University of Oxford, England. The reputation of the Johns Hopkins Medical School has been due to a large extent to the influence of Dr. Osler, and it was with much regret that his resignation was received and accepted. His services will long be remembered. Our best wishes go with him to his new post. It is gratifying to us to know that he is likely to spend a month or two with us each year for some time to come.

Much consideration was given to the selection of Dr. Osler's successor. The problem was finally solved by
the appointment of Dr. Lewellys F. Barker as Professor of Medicine and Dr. William S. Thayer as Professor of Clinical Medicine. Both these gentlemen are well known here, and it is felt by the Advisory Board of the Medical Faculty that these appointments are of such a character as to secure for the medical school a continuance of its high reputation in the department of medicine.

Dr. Barker was graduated in medicine at the University of Toronto in 1890, and the following year he was a house officer in the Toronto General Hospital. He then came to Baltimore and was for several years an assistant physician and an assistant resident pathologist in the Johns Hopkins Hospital. He was Fellow in Pathology in the university for two years, Associate and Associate Professor of Anatomy from 1894-99, and Associate Professor of Pathology, 1899-00. For five years past he has been Professor and Head of the department of Anatomy in the University of Chicago and the Rush Medical College. He has published "The Nervous System and its Constituent Neurones," a translation of Werner Spalteholtz's "Hand Atlas of Human Anatomy," and numerous monographs and addresses.

Dr. Thayer is a Bachelor of Arts of Harvard University in 1885 and a Doctor of Medicine in 1889. From 1891 to 1898 he was Resident Physician in the Johns Hopkins Hospital. During the year 1895-96 he was Associate in Medicine in the university, and since then he has been Associate Professor of Medicine, Associate in Medicine in the Hospital, and Head of the Medical Clinic of the Dispensary. He is a member of the Association of American Physicians, of the American Association of Pathologists and
Bacteriologists, of the Washington Academy of Sciences, and an honorary member of the Therapeutical Society of Moscow. He is the author of "Lectures on the Malarial Fevers," "The Malarial Fevers of Baltimore," and many articles in the medical journals.

I also call special attention to the appointment of Dr. David M. Robinson to be Associate in Classical Archaeology. The need of a trained archaeologist has long been felt here. After much correspondence the Academic Council, on the advice of Professor Gildersleeve, recommended to you the appointment of Dr. Robinson. It is hoped that he will awaken interest in the important subject which he represents, and that the university may become through his efforts a centre of activity in this field. Dr. Robinson is a Bachelor of Arts and a Doctor of Philosophy of the University of Chicago, where he held a fellowship for three years. He spent two years in the American School of Classical Studies in Athens, and one year in the Universities of Halle and Berlin, and during the past year he has been Assistant Professor of Greek in Illinois College. He is a contributor to the American Journal of Philology and the American Journal of Archaeology.

JOHNSTON SCHOLARSHIPS

As stated in my last report, under the will of the late Mrs. Harriet Lane Johnston, formerly of Baltimore, the university has come into possession of a fund amounting to $90,000 for the establishment of scholarships, in memory of Mrs. Johnston's husband and two sons who died some years ago. The stipend of each of these scholarships is the income
of thirty thousand dollars, which, for the present, is fixed at twelve hundred dollars a year. By resolution you placed on the Academic Council the responsibility of prescribing the qualifications of persons who may hold the scholarships, and of making the awards. On the recommendation of the Academic Council, you adopted the following statement of conditions and regulations governing these scholarships:

"The scholarships are offered primarily to young men who have given evidence of the power of independent research. The holders of the scholarships will be expected to devote themselves to study and to research in their chosen subjects, though they may be required to do some teaching.

"Candidates must make application, in writing, to the President of the University before the first of May. The applications must be accompanied by such evidence of the candidates' fitness as they may be able to present. The President will refer the papers to the Academic Council, by whom the nominations will be made to the Board of Trustees at their meeting in June.

"Holders of the scholarships may not engage in teaching elsewhere.

"The scholars will be appointed for one year, but, if their work should prove satisfactory, they will generally be re-appointed."

You will observe that emphasis is laid upon evidence of the power of independent research. The critical word is "independent." Many young men are able to carry on researches that are suggested to them and watched over by others, but not many show the power of independent research. We were fortunate in finding three promising candidates, who were appointed in January, and have been reappointed for the year 1905–06. To make clear the ideas of the Academic Council in regard to the kind of men
whom they wish to see appointed to these scholarships, a brief statement concerning the attainments of the three present holders is here given:

Solomon Farley Acree (Henry E. Johnston Scholar) was graduated at the University of Texas as a Bachelor of Science in 1896, and in the following year he received the degree of Master of Science from the same institution. He held a fellowship in the University of Chicago from 1898 to 1901; during the year 1900-01 he was also an Assistant in General and Analytical Chemistry; and in 1902 he received the degree of Doctor of Philosophy. From 1901 to 1903 he was Associate Professor of Chemistry in the University of Utah. He spent the year 1903-04 in research work in Emil Fischer's laboratory in the University of Berlin. He has published a large number of articles embodying the results of his researches, among them the following: Constitution of Phenylurazole; On Sodium Phenyl and the Action of Sodium on Ketones; On the Pinacone-Pinacoline Rearrangement.

Henry S. Conard (James Buchanan Johnston Scholar) is a graduate of Haverford College with the degrees of Bachelor of Science in 1894 and Master of Arts in 1895. During the year 1894-95 he held a fellowship in Haverford. From 1899 to 1901 he was a fellow in Biology in the University of Pennsylvania, and a fellow in Botany from 1901 to 1903, and for two years he was an instructor and a lecturer in Botany in that institution. He received the degree of Doctor of Philosophy in 1901. He has travelled extensively in this country and Europe, and has been aided in his researches by a grant from the Carnegie Institution. The following are among his publications: Fasciation in the Sweet Potato; Nymphaea (sub. gen. Brachyceeras) in Africa; Water-lilies: A Monograph of the Genus Nymphaea (30 plates in heliotype and lithograph, 80 text figures, and about 200 pages of text), published by the Carnegie Institution (in press).

Isaac Woodbridge Riley (Henry E. Johnston, Jr. Scholar) is a Bachelor of Arts of Yale University (1892) and received
the degree of Master of Arts in 1898 and that of Doctor of Philosophy in 1902. He spent one year in New York University as instructor in English and was Acting Professor of Philosophy in the University of New Brunswick for two years. He is an associate editor of the Psychological Bulletin. At the time of his appointment he was pursuing advanced study and research in Yale University. His published writings include: The Founder of Mormonism: A Psychological Study of Joseph Smith, Jr., with an introduction by Professor G. T. Ladd, 1902; The same: second American edition, 1903; The Personal Sources of Christian Science.

**COMMEMORATION DAY**

The annual exercises of Commemoration Day were held in McCoy Hall on the twenty-second of February. The orator of the day was Dr. William Osler, who delivered a noteworthy address, and the degree of Doctor of Laws, *honoris causa*, was conferred upon him. The degree of Bachelor of Arts was granted to two young men and two were promoted to the degree of Doctor of Philosophy. The general Alumni Association had its annual meeting in the morning, and in the evening the annual banquet was held at the University Club.

**COMMENCEMENT**

The public exercises in connection with the bestowal of degrees were held in the Academy of Music, June 13. Diplomas were given to thirty-one Bachelors of Arts, thirty-three Doctors of Philosophy, and fifty-three Doctors of Medicine. The chief address was delivered by Talcott Williams, LL. D., of Philadelphia, and the usual reception to the graduates and their friends was given in the evening in McCoy Hall.
PERSONAL MENTION

Professor Gildersleeve was honored during the summer by the two great universities of England, Oxford and Cambridge, each of which conferred upon him the degree of Doctor of Letters. In presenting Professor Gildersleeve, the Vice-Chancellor of the University of Oxford used these words: "Here stands the man who has ever been deserving of the palm as a grammarian of extraordinary acumen and diligence, as a most lucid commentator on texts, as a very distinguished master of the art of teaching. I present to you Basil Gildersleeve, a most learned man, notable in science and the arts, that he may be admitted to the degree of doctor of letters, honoris causa."

Professor Halsted and Professor Kelly, who visited Great Britain the past summer, were made Honorary Fellows of the Royal College of Surgeons of Edinburgh. High praise was accorded them for the part they have taken in organizing and carrying forward the scientific work which has made the Johns Hopkins foundations famous throughout the world.

In March, 1905, Professor Hollander was requested by President Roosevelt to proceed to Santo Domingo as Confidential Agent of the United States to investigate and report upon the financial condition of that island. With the consent of the university authorities, Professor Hollander undertook this mission and spent some six weeks in Santo Domingo. In the summer he went to Europe to interview, in connection with his mission, the principal foreign creditors of the island. In August he made a verbal report to
President Roosevelt, and was appointed Special Commissioner Plenipotentiary to Santo Domingo and the West Indies. A detailed report upon the Dominican finances has been submitted by Professor Hollander to the Department of State and communicated to the Senate Committee on Foreign Relations. Professor Hollander had already rendered service to the government on two occasions, viz., in March, 1900, when he was sent to Porto Rico to revise the laws relating to taxation, serving also for a time as Treasurer of the island, and during the spring and summer of 1904, when he went to the Indian Territory to investigate its fiscal requirements and resources.

The university has been represented at a number of academic and scientific gatherings. At the Fourteenth International Congress of Orientalists held last April in Algiers, Professors Haupt and Bloomfield were the delegates from this institution; Professor Elliott represented the university at the inauguration of Dr. Dabney as President of the University of Cincinnati; Professor Baldwin was our delegate at the celebration of the one hundred and tenth anniversary of South Carolina College; Professor Ames attended the installation of President Atkinson, of the Brooklyn Polytechnic Institute, and the inauguration of Dr. Brown Ayres as President of the University of Tennessee; and at the inauguration of Dr. Alderman as the first President of the University of Virginia, the President of the University was its representative.

The university has lost the services of one of its most faithful and valued employees, Mr. William B. Clemson, whose death occurred on the sixteenth of May. Mr. Clem-
son entered the service of the university in December, 1887, as a book-keeper in the Treasurer’s office, and for seventeen years he performed his duties in an unusually satisfactory manner. His loss has been deeply felt.

PRIZES

The John Marshall Prize, which consists of a bronze likeness of Chief Justice Marshall, was given this year to Herbert Friedenwald, Ph. D. (A. B., Johns Hopkins, 1890) in recognition of his recent work entitled "The Declaration of Independence." The prize is awarded annually to that graduate of the university who is considered to have made within the year the most valuable contribution to historical or political science. The recipients in past years are named below:

1892. Henry C. Adams, Ph. D. 1898. Charles D. Hazen, Ph. D.
1892. Charles H. Levermore, Ph. D. 1899. Jacob H. Hollander, Ph. D.
1892. John M. Vincent, Ph. D. 1900. James M. Callahan, Ph. D.
1892. Woodrow Wilson, Ph. D. 1901. John H. Latané, Ph. D.
1895. Albert Shaw, Ph. D. 1904. Davis R. Dewey, Ph. D.
1896. Westel W. Willoughby, Ph. D. 1905. Herbert Friedenwald, Ph. D.
1897. J. Franklin Jameson, Ph. D.

The Henrico Medallion, a copper bas-relief commemorating the foundation of a university at Henrico, in Virginia, in the year 1619, the gift of the Colonial Dames of America, Chapter I, was awarded to Oliver Perry Chitwood (Ph. D., Johns Hopkins, 1905), as a recognition of his paper entitled "Justice in Colonial Virginia," recently published in the University Studies in Historical and Political Science. This
prize is bestowed annually upon a graduate or student of the Johns Hopkins University, not more than ten years after his receiving the degree of Bachelor of Arts, as a recognition of work of special excellence in early American History.

The Tocqueville Medal, the gift of the Baron Pierre de Coubertin, of Paris, commemorating the name of the illustrious Frenchman, Alexis de Tocqueville, was awarded to John Francis Cremen (A. B., Johns Hopkins 1905), for his essay on "Louis Adolph Thiers." It is offered by the university to that student who shall have written the best essay on some subject illustrating any phase of French History, political or social, from 1815 to 1890, or a review of some important historical work published in France since 1890.

PUBLICATIONS

The various serial publications of the university have appeared as usual. The list now includes the following journals:

The American Journal of Mathematics, in its twenty-seventh volume; the American Journal of Philology, in its twenty-sixth volume; the American Chemical Journal, in its thirty-fourth; Studies in Historical and Political Science, of which the twenty-second series is completed, and several extra volumes have been issued; and Modern Language Notes, of which twenty volumes are nearly complete. The Contributions to Assyriology, the Memoirs from the Biological Laboratory, and the Journal of Terrestrial Magnetism have also been issued under the editorial direction of university professors.
The following lectures and addresses were open to the public during the session:

Mr. George E. Woodberry delivered the course on the Percy Turnbull Memorial Foundation in March and April, selecting as his subject "Poetic Forms of Life," which he treated in eight lectures.

Dr. Clifford Allbutt, F. R. S., Regius Professor of Medicine in the University of Cambridge, gave an address before the medical department at the opening of the session.

James Ward, LL. D., Professor of Mental Philosophy in the University of Cambridge, lectured on the "Present Trend of Modern Speculation."

The two hundredth anniversary of the death of John Locke was celebrated in McCoy Hall, November 1, addresses on various phases of his life and work being delivered by Principal G. Lloyd Morgan, of University College, Bristol, England, Professor Woodbridge, of Columbia University, Professor Sterrett, of George Washington University, Dr. William Osler, and others. The following day Principal Morgan gave a lecture on "Comparative and Genetic Psychology."

Mr. Bailey Willis, of the Carnegie Institution, and Professor William M. Davis, of Harvard University, lectured on their recent travels and explorations in China.

Dr. S. Weir Mitchell, of Philadelphia, gave a lecture entitled "A Lecture on Lecturers."

Professor Friedrich Keutgen, of the University of Jena, lectured on "The Necessity in America of the Study of the
Early History of Modern European Nations," and on "The Origin of Craftgilds in Germany."

Mr. Gustav Pollak, of New York, gave two lectures on certain Austrian Dramatists.

Dr. James Schouler continued his annual course of four lectures on the "Life of the People during the American Revolution."

Courses for teachers and other persons not connected with the university were given on Saturday mornings from October to March, as follows: Botany, twenty lectures, with laboratory exercises, by Dr. D. S. Johnson; Latin, three courses of twenty lessons each, and a course of twenty lessons in Greek, by Dr. H. L. Wilson. In connection with the Latin courses, lectures open to the public were delivered by Professor W. P. Mustard, of Haverford College, on "Tasso's Debt to Vergil," and by Professor K. F. Smith, on "The Poet Martial."

Four lectures were given during the year, in McCoy Hall, under the auspices of the Baltimore Society of the Archaeological Institute of America, by Dr. Charles F. Lummis, of California, Professor Egbert, of Columbia University, Mr. James T. Dennis, of Baltimore, and Professor D. M. Robinson, of Illinois College.

The eighth annual debate and contest in public speaking by undergraduates was held in March. The following gentlemen acted as Judges on this occasion, Messrs. John C. Rose, William S. Bryan, Jr., Arthur W. Machen, Jr., Jacob M. Moses, Henry S. West, Robert F. Leach, Jr.

The fourth Intercollegiate Debate was held in April, between representatives of the second and third year under-
graduate classes of this university and students from Brown University, the decision being rendered in favor of our students. The Judges were Hon. Harry M. Clabaugh, of the Supreme Court of the District of Columbia, Hon. J. Wirt Randall, of Annapolis, and Professor George L. Raymond, of Princeton University.

The following societies held meetings or conducted lectures in our halls:
The Association of American Universities, the Maryland Society for the Prevention of Tuberculosis, the Medical and Chirurgical Faculty of Maryland, the Federated Charities of Baltimore, the Municipal Art Society of Baltimore, the Botany Club of Baltimore, the Alliance Française, the Public School Teachers' Association, the Baltimore County Teachers' Association, the Maryland Branch of the American National Red Cross, the Lawrence House Social Settlement, the Baltimore Society of Teachers of Mathematics, the Baltimore Chapter of the American Institute of Bank Clerks.

**GIFTS AND BEQUESTS**

Under the will of the late Adoniram J. Robinson, Esq., a Bachelor of Arts of this university in 1881, the university is made residuary legatee. The estate has not been settled, and we have not yet come into possession of the legacy.

The gift of one thousand dollars made annually for two years past to aid in the study of labor organizations was renewed for the current year.

Mr. Abram G. Hutzler made a second gift of five hundred dollars for the purchase of economic books, and another
friend of the university, who desires his name withheld, made a similar gift.

A valuable collection of books and relics illustrating the history and institutions of Japan, bequeathed to the university by the late Professor David Murray, of New Brunswick, N. J., director of the Japanese department of education, has been received. The books include the more important writers upon Japan, the journals of the Asiatic Society of Japan, files of newspapers, and reports upon education and commerce of that country. Some of this material is in the Japanese language, but the greater part is written in English or other European languages. A special book-plate has been prepared. The relics include swords, spears, and other weapons illustrating the older military life of Japan. There are also handsome examples of antique lacquer work and pictures illustrating religious conceptions of the Japanese. These have been added to the collection given to the university some years ago by Professor Murray and are now displayed in one of the corridors of McCoy Hall.

Dr. E. R. L. Gould, of New York, a graduate of the university, has presented to us a large collection of books and pamphlets relating to economic and statistical subjects.

The King of Württemberg has presented to the university a bronze bust of the poet Schiller, a replica of a colossal bust, by Dannecker, in Stuttgart. On April 29, at noon, an assembly of the Trustees, Faculty, Students, and invited guests was held in McCoy Hall, when the bust was formally presented, on behalf of the King of Württemberg, by Major-General Albert von Pfister, of Stuttgart. The degree of
Doctor of Laws, *honoris causa*, was conferred upon General von Pfister.

A bust of Dr. Osler, modelled by Mr. Hans Schuler, of Baltimore, has been given to the university by a number of Dr. Osler’s friends; and the plaster model of a bust of President Remsen has been presented by the sculptor, Mr. J. Maxwell Miller, also of Baltimore.

**MEDICAL DEPARTMENT**

Especial attention is called to two important advances in the work of the medical department mentioned in the report of the Dean. His words are as follows:

"The medical instruction during the session was greatly aided by the conveniences offered by the new surgical building. This building, erected by the Trustees of the Johns Hopkins Hospital, was completed during the latter part of the session of 1903-1904. It offers ample quarters for clinical and laboratory instruction in medicine and surgery, and has added much to the effectiveness of the instruction during the last two years of the course."

"Another improvement, long discussed, was inaugurated during this session. For a number of years the students in our third year have been given practical exercises in operative surgery, especially upon animals suffering from various troubles amenable to operations. This instruction has been supervised very carefully and has been carried on with the greatest possible care in the matter of treatment of the animals. Very inadequate quarters, however, were assigned to this work, and, since experience has shown that it is a feasible and very valuable training for our medical students, the Trustees of the university generously appropriated an adequate sum for the erection of a new laboratory which should provide suitable accommodations for this work, as also for research and instruction in experimental pathology, and, moreover, should contain more commodious quarters for the
animals used in the various laboratories. The plans for this new building were decided upon and its construction begun during the latter part of the session. In thus devoting a special laboratory and equipment to systematic instruction of medical students in the technique of practical surgery, the School has inaugurated a new departure in medical training."

DEVELOPMENT OF HOMEWOOD

You will recall the fact that several architects were invited to submit plans for the development of our new site. In my last annual report you will find the following paragraph: "All the plans were duly received and they have been carefully examined. As this subject will, however, be presented to you in a special report and, as the final act in this series of events occurred after the close of the last academic year, nothing more need be said in regard to it here, except this, that the problem with which we were dealing was a difficult one."

The special report here referred to was submitted to you November 7, 1904. As this has not as yet appeared in type, I think it well to have it here recorded, as the time will come when the method of procedure followed by you will probably be a subject of considerable interest.

To the Trustees

of the Johns Hopkins University.

Gentlemen:

You will remember that about two years ago I submitted to you a letter which I had received from Mr. R. Brent Keyser, now President of the Board, a copy of which I give here:

November 7, 1904.
Dr. IRA REMSEN,
President, Johns Hopkins University.

Dear Sir:—As the proper development of the Homewood property, now belonging to the university, must come up for consideration in the near future, it seems desirable that expert opinion be obtained and submitted to the Board of Trustees covering such suggestions, sketches, plats, etc., as will enable the Board to adopt a general plan for the consistent and advantageous treatment of the property. It would seem that such a report can best be prepared under your personal supervision, and if it should be the pleasure of the Board to instruct you to have such a report prepared, giving you authority to call to your aid such assistance expert and otherwise as you may deem necessary, I will be very glad to contribute the sum of $5000 to be used by you towards paying the expenses incident thereto.*

R. BRENT KEYSER.

October 28, 1902.

At your meeting held November 3, 1902, the following resolution was adopted:

Resolved, That the thanks of the Board be returned to Mr. Keyser, and that the subject be placed in the hands of the President of the university, with the request that he collect information and report his recommendations to the Board.

In my last annual report (page 17 ff.) you will find the following statement, which will make clear the method of procedure up to the time that report was written:

Acting in accordance with this resolution I have consulted with many who have been connected with the development of similar schemes elsewhere, and with the Trustees I have visited several of the larger universities and colleges. We have found that many of the older colleges have had no systematic plan for their development, and the result has been so inharmonious and

* When it was found later that this sum would not suffice, Mr. Keyser generously doubled his gift.
unsatisfactory that in recent years many have appointed an
official architect and have adopted a definite style of architecture
for their future buildings. While this insures harmony, it was
decided for many reasons that it would be unwise for the Johns
Hopkins University to adopt this plan. The principal reason
for this is that at present we have no money for the buildings,
and an architect now appointed might not be available when the
work is undertaken. Further, the selection of one architect or
firm of architects to the exclusion of all others does not seem
desirable in the case of a public institution like the Johns Hop-
kins University. While an official architect insures harmonious,
even if at times monotonous results during his life, his successor
would be likely to adopt an entirely different style and the har-
mony thus be destroyed.

It was further decided to adopt a method that will insure
a symmetrical and harmonious development, and will not be
dependent upon any one man, so that continuity may be secured
during the life of the university. With this object in view, it has
been thought best to secure the services of an Advisory Board of
three, who, while experts themselves, will be debarred by their
position from competing, and whose work will be confined to
criticizing such plans as may be presented by others. I have
appointed as members of the board Frederick Law Olmsted, Jr.,
of Brookline, Mass., Walter Cook, of New York, and J. B.
Noel Wyatt, of Baltimore.

As vacancies occur on this board, they can be filled by the
appointment of men of like standing, and thus an intelligent
criticism will be insured by men who are familiar with what has
already been done and what is proposed; and, further, a con-
tinuity of design will be secured that will permit radical changes
in the plan or in the style of buildings only after due considera-
tion by those who are familiar with all the circumstances.

Mr. Olmsted is widely known. He is a member of the
District of Columbia Commission now engaged in laying out the
National Capital; is prominently connected with the Boston
parks, the work now in progress on the new Military Academy
at West Point, and almost all the large landscape schemes in the
country.
Mr. Cook is a member of the New York firm of architects, Babb, Cook & Willard. He was a member of the juries of award for the New York Public Library, the Washington University at St. Louis, and for the remodeling of the United States Military Academy at West Point, and the American representative on the international jury for the Phoebe Hearst plan for the University of California. He was also one of the architects of the Pan-American Exposition at Buffalo, and one of the three architects chosen for the Carnegie libraries in New York.

Mr. Wyatt is a member of the firm of Wyatt and Nolting, the architects of the new Baltimore Courthouse and of many other noteworthy buildings. He is also a member of the advisory board of architects of the St. Louis Exhibition, and has been for many years one of Baltimore's leading citizens in all matters pertaining to the beautifying of the city.

The Advisory Board will aid me in preparing a programme or specification. They will then assist in examining the plans submitted and in determining which one should be presented to the trustees.

The programme or specification referred to in the last paragraph was prepared after I had consulted with members of the Board of Trustees and of the teaching staff. It contained the passages given below:

The President of the Johns Hopkins University desires to obtain a Plan for the development of the new site for the University Buildings at 'Homewood,' Baltimore, and to institute a competition in order to select an architect to prepare such a Plan by the method herewith explained.

In arriving at a decision he will be aided by an expert commission termed the 'Advisory Board,' composed of Mr. Frederick Law Olmsted, Jr., Mr. Walter Cook, and Mr. J. B. Noel Wyatt.

1. In the competition the following architects or firms will be invited, and designs from others will not be received; but each of the competitors may associate with himself some other architect or a landscape-architect. In the event of the here-
named architects not wishing to compete, the Board may substitute others in their place, if it should seem desirable to do so:


2. It is to be understood that funds for the purpose of actually constructing this work, as it may be shown in the design chosen, are not in hand at present, and it is uncertain at what time in the future they may be available. Therefore the university does not guarantee that the actual carrying out of any of the work, or that the designing or erection of any of the buildings, which may from time to time be placed on the grounds, shall be in charge of the architect whose design and plan in this competition may be accepted. Whether the preparation of the plan proceeds no further than the close of the competition as explained in paragraph No. 4, or whether the successful competitor is employed to elaborate the design as explained in paragraph No. 5, the accepted drawings so far as then made, in either case, shall be the property of the university. This is a competition for obtaining a plan and not for constructing the work.

3. Each of the competitors, including the architect whose design shall be chosen as the best, shall be paid the sum of . . . . dollars within one month after the competition is judged and the award made.

4. Should it be decided for any reason whatever not to proceed at present with the further preparation of this plan, the author of the design so chosen shall receive the sum of . . . . dollars in addition to the sum already mentioned.

5. If it shall then be decided to proceed with a further preparation of the plan, the author of the design chosen shall be employed to elaborate or modify his design submitted, and for this work will be paid the sum of . . . . dollars as a professional
fee, and, in addition thereto, an allowance for the expense of this work.

6. All drawings except those of the successful competitor will be promptly returned to their authors. None of these designs will be shown to the other competitors or to the public without the written consent of their authors, and no portion of any unsuccessful design will be used or adopted by the successful competitor without remuneration to its author. The amount of such remuneration will be determined by the expert commission, whose ruling shall be without appeal.

8. The following drawings will be required:

First. A general plan of the grounds with the buildings indicated in block at a scale of 1/100" = 1' — 0"; the finished grades proposed are to be indicated by figures, and the existing grades at the same points are to be indicated in bracketed figures.

Second. Two general sections through the grounds, or any portion of them, to be taken as each competitor deems most useful in order to explain his plan, at a scale of 1/50" = 1' — 0". No architectural detail is to be shown on these sections, which are for the explanation of the general scheme. The outline elevations of such buildings and other features as are beyond the plane of the section are to be shown.

Third. A first-story plan of the building or buildings named under heading "E" of accompanying programme, one elevation, and one section of the same, all at a scale of 1/8" = 1' — 0". The purpose of these is to establish in some degree the architectural style which is to be aimed at in the future buildings of the university.

10. With each set of drawings shall be enclosed a type-written description or explanation of the design, and also a plain sealed envelope, without any superscription, containing the name of the competitor. Each set of drawings must be enclosed in a portfolio or between two pieces of cardboard or pasteboard, securely wrapped and sealed and labelled—President Ira Remsen, Johns Hopkins University, Baltimore, Md. Charges must be prepaid.
11. All drawings must reach this address on or before October 1, 1904. No drawings received after this time will be opened or considered. Each package as received will be opened by an employee of the university, who will mark each drawing and the description with a number, and the envelope with the same number for identification. No envelope containing name will be opened until the award is made.

12. No drawings or papers submitted are to have any mark upon them by which their authors or the place from which they are sent can be known or inferred, names of cities being omitted in dating.

13. The drawings thus submitted will be duly examined and the award made on or before November 1, 1904.

14. All competitors are expressly forbidden during the progress of this competition to hold any communication concerning it with any member of the Board of Trustees, or of the faculty of the university, or with any of the expert commission.

17. The plan is to make provision for buildings to be erected within the next few years to accommodate the present number of students; but these are to be so planned and arranged that they may be supplemented from time to time by enlargements or by additional buildings or both, in such a manner as to accommodate the future growth of the university, as noted in the table, and the manner of providing for this future accommodation shall be indicated on the Plan.

- Enlargement is likely to take place in three ways—first, by the growth in situ of some of the departments already provided for, by means of adding wings or other enlargements to their several buildings; second, by the addition of new departments, and the erection of new buildings for them; third, it may happen that a new and larger building must be provided for an original department, in which case the old building must generally be adapted to other uses.

The choice of these methods of expansion must be determined in the future by circumstances which it is impossible to forecast, and it will be a distinct advantage in any plan for placing future
buildings to leave a considerable latitude of choice in this matter, without sacrifice of order and appearance.

The first column of the table on pages 28–30 sets forth the items to be provided for definitely, with a view to construction in the near future; the second column indicates the extent of building which is to be anticipated in the distant future and for which space should be provided in one way or another.

It is suggested that, in arranging the various buildings upon the grounds, attention should be given to so placing the Auditorium, Administration Building, and Chapel, combined with some others, as to form a group with some mode of special approach and entrance, to the end that this group may be temporarily enclosed from time to time, and separated from the rest of the grounds for the purpose of social and other functions.

As part of the essential features must be comprised all necessary roads and paths, but only such architectural and landscape accessories as would form an integral part of the scheme or would aid in making it clear.

And, particularly, it is to be noted that no designs of either ground plans or elevations of any buildings are desired (with the exception only of those specially designated in paragraph No. 8). Merely the location and suggestive outline of all other buildings are to be shown on the plan.

As the buildings mentioned above will not occupy the entire grounds, it is suggested that appropriate sites and groupings for other buildings, whose purposes cannot now be specified, be indicated in block. The area of these buildings must be left to the judgment of the individual competitors. But the location of athletic grounds must be indicated, comprising a quarter-mile running track, with seats; a base-ball diamond with seats; and an additional space for tennis courts and practice fields.

The interesting and well-preserved example of the old colonial residence, now on the grounds, it is proposed to retain, either on its present site, or, if necessary, moved to some other location. This special colonial type of architecture need not control the suggestions for the new buildings, as this building is comparatively a small one, and can remain merely as an interesting detail.
I. Accommodation required for the existing departments of the university, with such growth as may be anticipated by the time of removal to new site.

II. Additional accommodation to be provided for increment in the indefinite future.

**BUILDINGS.**

**Approximate Ground Area sq. ft.**

<table>
<thead>
<tr>
<th>Buildings</th>
<th>Ground Area</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Library, for present and future books to number about 300,000 volumes, with appropriate and comfortable reading space.</td>
<td>12,000</td>
<td>50%—about</td>
</tr>
<tr>
<td>2. A building containing about 20 seminary class-rooms for about 25 students each, arranged like large committee rooms. This building may be separate from the library, but conveniently connected with it; or there may be one building containing library and these seminary class-rooms.</td>
<td>8,000</td>
<td>50%—about</td>
</tr>
<tr>
<td>B.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Chapel with minimum seating capacity of 500—to have monumental character.</td>
<td>6,000</td>
<td></td>
</tr>
<tr>
<td>2. &quot;Levering Hall&quot; (Y. M. C. A. Bldg.)</td>
<td>3,000</td>
<td></td>
</tr>
<tr>
<td>C.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A building to contain administrative offices; President's, Treasurer's, and Registrar's rooms; an assembly hall to seat 1500, with a dancing floor; and a small assembly hall to seat about 200. The offices and assembly hall may be separated into two buildings, if thought desirable.</td>
<td>12,000</td>
<td></td>
</tr>
</tbody>
</table>
I. Accommodation required for the existing departments of the university, with such growth as may be anticipated by the time of removal to new site.

II. Additional accommodation to be provided for increment in the indefinite future.

### Approximate Ground Area

<table>
<thead>
<tr>
<th>Buildings</th>
<th>Ground Area</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>D. One or two buildings as preferred by competitor; to be two to four stories in height and to contain in the aggregate twenty-five rooms, each seating about forty, to be used as class-rooms or lecture halls in non-laboratory subjects.</td>
<td>10,000</td>
<td>50%</td>
</tr>
<tr>
<td>E. 1. Six buildings for laboratory purposes, each including class-rooms and department libraries for subjects mainly taught by laboratory methods.</td>
<td>60,000</td>
<td>100%</td>
</tr>
<tr>
<td>F. Two museums in connection with these.</td>
<td>20,000</td>
<td>100%</td>
</tr>
<tr>
<td>G. Auditorium for audience of about 2000, with stage, etc. A distinct and somewhat monumental building not necessarily among the first to be erected.</td>
<td>12,000</td>
<td>100%</td>
</tr>
<tr>
<td>H. Three buildings for dormitories, three to five stories. 7500 sq. ft. each.</td>
<td>22,500</td>
<td>200%</td>
</tr>
<tr>
<td>I. Dining establishments, with kitchen and other domestic offices combined. Seating and serving capacity of about 300.</td>
<td>5,000</td>
<td>100%</td>
</tr>
</tbody>
</table>
I. Accommodation required for the existing departments of the university, with such growth as may be anticipated by the time of removal to new site.

II. Additional accommodation to be provided for increment in the indefinite future.

BUILDINGS.

J. Building or buildings containing provision for athletics, conveniently located for easy access to students and not necessarily combined with Athletic Grounds, which will probably be located at a more distant part of the site. 10,000 50%

K. Power House, site shown on survey. Provision will be made for supplying heat, light, etc., from this house by underground conduits to all buildings.

Approximate
Ground Area
sq. ft.

All the architects who were invited to take part in the competition accepted the invitation and all submitted drawings within the specified time.

I have now the honor to inform you that the Advisory Board have met for the purpose of examining the drawings submitted. They held meetings Thursday and Friday, October 27 and 28, being together for about twenty hours. During most of this time Mr. Keyser and I were with them. We visited "Homewood" and studied the plans on the grounds, in order to get as clear a conception of their significance as possible. As a result of this careful study the Advisory Board reported to me that they had reached a unanimous decision, to the effect that the design marked "A" at the time of opening was the most meritorious. I am very glad to be able to say that I agreed with the members of the Board, and, further, that Mr. Keyser, who is profoundly interested in the working out of the problem,
agrees with the Board and myself. The opinion is unanimous, and I may add that there is no doubt in the minds of any of us as to the justice of the decision. When this conclusion was reached the sealed envelope accompanying the design was opened, and Messrs. Parker and Thomas, of Boston and Baltimore, were found to be the successful competitors. Their design commended itself as showing great architectural ability in all its parts, and especially as being skillfully and intelligently adapted to the conditions imposed by the site, taking advantage of the open spaces and those where the least amount of grading is required, and preserving wherever possible the trees and other natural beauties.

It will easily be understood, however, that the scheme presented, having been prepared in competition, with no possibility of consulting those most interested in the result and most competent to advise in many matters of detail, is not and could not be complete and perfect in all respects, but presents a general plan and an excellent one, which must be modified and restudied in parts, in order to be entirely satisfactory. The programme provides for such further study and elaboration, and it would seem very desirable that the authors of the design should now be directed to proceed with this work. It is a subject of congratulation that it offers such an excellent basis for this further study.

I need scarcely add that every precaution was taken to secure absolute fairness in dealing with the problem.

All five competitors have evidently given serious and conscientious thought to the problem and have presented their results in admirable form, and there were points of decided merit in all of the plans submitted. In this connection I call attention to the following passage in section 2 of the specifications given in the first part of this report:

"Therefore the university does not guarantee that the actual carrying out of any of the work, or that the designing or erection of any of the buildings, which may from time to time be placed on the grounds, shall be in charge of the architect whose design and plan in this competition may be accepted."
From this it is clear that when the time for building comes, the trustees will be at liberty to employ such architect or architects as may seem best.

By referring to section 14 in the programme you will note that the competitors were prohibited from consulting the Trustees, Faculty, or the Advisory Board. The object of this was to eliminate local prejudices and to make it possible for the competitors to deal with the problem in the broadest possible way.

It will now be wise, as provided in section 5 of the programme, to have the accepted plan elaborated with the aid of the Advisory Board and of those most familiar with the work of the university, and, as there are funds on hand for this purpose, I respectfully suggest that this report with the accompanying plans be accepted, and the matter be again referred to me with instructions to have the elaborated plans prepared and submitted to the Board for its further consideration and final action.

If you conclude to take the step here suggested, the present situation, briefly stated, is this:

1. We have in our possession plans for the grouping of buildings and suggestions for the general style of architecture to be adopted for the university buildings at Homewood.

2. When the work of elaboration now proposed is completed, we shall, I am sure, have an intelligent and satisfactory plan for the systematic and harmonious development of our beautiful site.

3. I need not say that we shall not be able to proceed at once with the erection of buildings, for the simple reason that we have not the requisite money.

4. The buildings called for by the programme and provided for in the design submitted are not all necessary for the present work of the university. In a drawing, a copy of which I submit herewith, the buildings needed for our present work are indicated. I may add that I hope these buildings will not be palatial. My own preference is decidedly for simple and comparatively inexpensive buildings, though I feel very strongly that they should represent a high type of architecture. After consul-
Report of the President

In regard to the style of architecture for the buildings of the Johns Hopkins University at Homewood, the Advisory Board hereby suggest to the competing architects that their preference is for such buildings as are not elaborate and expensive in general scheme or detail, but rather for such as are simple and dignified, with characteristics indicative of the purpose, and as inexpensive as may be consistent with thoroughly good construction in all cases.

5. In regard to the sum required to enable us to move to Homewood I do not venture here to make a specific statement, but such calculations as I have been able to make on the above basis give me reason to believe that the problem of moving is one that can be solved.

Respectfully submitted,

IRA REMSEN,
President.

The location of the buildings, according to the plans of the successful competitors, is shown in the accompanying cut. Not all the buildings here planned for will be needed to carry on the present work of the university; I have therefore indicated the "Present Needs" and the "Future Needs."

If the problem were presented to us to-day to transfer the work of the university from its present site to Homewood, the buildings that would actually be needed are a library, a building devoted to class-rooms, a physical laboratory, a chemical laboratory, a geological laboratory, a biological laboratory, Levering Hall, a gymnasium, and a dormitory.
The library building could be so arranged as to provide for the offices of administration, and would include class-rooms for graduate students. It might possibly at first provide all the rooms needed for undergraduate students also. In this case a special building for class-rooms would not be required immediately. For the actual needs of the university, then, seven or eight buildings would be called for at the outset. I feel sure that these could be provided for a sum between $750,000 and $1,000,000. I do not think it would be wise to move until at least the smaller sum is available for buildings. As you well know, it has been deemed by you advisable to devote the entire present income of the university to strictly university work, and additional funds will therefore need to be provided in some way. It will not be feasible to transfer the university in parts without largely increasing our regular expenses for maintenance. The distance between the new site and the old is too great to make it convenient for a student to do part of his work in one place and part in the other. It has been suggested that the collegiate or undergraduate work be removed to Homewood before the graduate work is transferred, but the necessary buildings for the undergraduate work could not be provided for much less than the sum above mentioned, and, further, this plan would necessitate many duplications in the teaching staff and lead to a corresponding increase in our annual expenses.

Several things can be done, and, in fact, much is being done. Provision can be made for athletics on the new site, and arrangements by which members of the university can lease sites for homes to be erected by themselves, or,
on proper terms, by the university. So far as the athletic grounds are concerned, measures have already been taken to put these in order, and excellent progress has been made in this work. A fine track has been graded, and it is hoped that the grounds will be ready for use in the autumn of 1906. The Athletic Association has furnished a part of the money necessary for this work and the university has furnished the remainder. There is reason to believe that there will be sufficient money available to put the grounds, together with a fence and seats, in condition ready for use.

In regard to the houses for members of the university, the architects have promised soon to furnish plans for the development of the property for this purpose, and I see no reason why within the next year we should not be able to begin work along this line.

The teachers of biology wish to have a part of Homewood devoted to the purposes of a botanical garden. It is highly desirable that their wishes should be complied with. Within the next year this work should be taken up, and thus another portion of Homewood would come into use for university purposes.

Some changes have been made in the original plans, as it was felt that the distances between some of the buildings were too great. The location of the principal buildings is now marked by stakes, so that anyone visiting Homewood at present will be enabled to picture to himself the future group.
CONCLUSION

The following quotation from my last report is appropriate at present:

"In conclusion, permit me to say that, in my opinion, our work is now progressing satisfactorily. All the departments that are included in the scope of the university are well provided with books and apparatus, and the new needs are being met as they arise. I do not know of any important piece of work in the field of the natural sciences that is languishing for lack of apparatus or material; and I believe all the important books needed by those whose work lies in the field of the non-laboratory subjects are available, either in our own library or in other libraries that are easily accessible. We are, of course, constantly adding books and apparatus, and funds must be made available to provide them.

"I call attention to the fact that a few important subjects are not at present properly represented in the university. I need not here specify these subjects, but in due time I shall ask you to make provision for the departments I have in mind."

Attention will be given during the present year to the filling of vacant places and to the strengthening of the work of the university wherever it may seem to need it.

Respectfully submitted,

IRA REMSEN.

December 26, 1905.
REPORTS ON THE INSTRUCTION IN THE
CHIEF BRANCHES OF STUDY

Prepared by the Principal Instructors in the Several Departments

Mathematics

Professor Morley gave the following courses:

   This course was devoted to the general theory of collineations, correlations, and apolarity as manifested in the plane.

   An outline of Lie's Theory of Groups of Transformations was given, with especial reference to the use of a matrix.

   The Theory of Functions, from Weierstrass's point of view, was applied in detail to the Elliptic Functions. Geometrical applications were discussed, especially that of the double-six of lines in space.

4. Classic Authors. *Once a week through the year.*
   The works read and discussed were:
   Enriquez, Projektivische Geometrie; Klein, Ausgewählte Fragen der Elementargeometrie; Grassmann, Ausdehnungslehre.

Dr. Cohen gave the following courses:

Elementary Theory of Functions. *Twice weekly through the year.*
   This course had the character of an introduction to the Modern Theory of Functions. The greater part of it was devoted to the study of the theory of functions of the complex variable from the points of view of Weierstrass and of Cauchy and Riemann. For the former, Harkness and Morley's Introduction to Analytic Functions was used as a basis.

2. Ordinary Differential Equations. *Twice weekly through the year.*
   During the first half-year the subject was taken up from the point of view of the theory of functions. The greater part of this time was devoted to equations with fixed singular points. In the second half-year the Lie theory as applied to ordinary differential equations was studied.

   After a hurried study of Kinematics, this course was devoted mainly to the consideration of the motion of a single particle, of solid bodies and
rigid systems, and to the study of the general equations of Dynamics and
their integration.

Dr. Coble gave a course on the Theory of Invariants. *Twice weekly, through the year.*

In this course the symbolic method as developed by Clebsch and Gordan
was employed. In the binary domain applications of the theory to the
geometry of normcurves and the subject of typical representations were
discussed. In the ternary domain systems of conics and connexes were treated.
The connex (12) was studied in detail, with particular reference to the
double tangents of a quartic curve.

The Seminary met each week. In addition to our own students and
instructors, communications were made by Professor Scott, of Bryn Mawr,
and Professor Eiesland, of Annapolis.

The *American Journal of Mathematics* is in its twenty-seventh volume.
A portrait of G. W. Hill appeared in the January number.

The undergraduate courses were given by Professor Hulburt, Dr. Cohen,
and Dr. Coble.

*Frank Morley,*
*Professor of Mathematics.*

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**Physics**

The Physical Laboratory has been open daily during the year for the
work of advanced and undergraduate students. Regular courses of lectures
have been given, and meetings have been held weekly for the reading and
discussion of the current journals. The Physical Seminary has also met
once each week, and the list of papers presented is given below.

The regular courses of instruction were as follows:

By Professor Ames:
1. Physical Seminary. *One hour weekly through the year.*
2. General Physics: Mechanics, Elasticity, and Hydrodynamics. *Four
   hours weekly through the year.*
3. General Physics: Minor Course. *Three hours weekly through the
   year.*
4. Journal Meeting. *One hour weekly through the year.*

By Professor Wood:
1. Electricity and Magnetism. *Three hours weekly through the year.*

By Professor Bliss:
1. General Physics: Major Course. *Four hours weekly through the year.*
By Dr. J. B. Whitehead:
1. Applied Electricity. *Two hours weekly through the year.*
2. Reviews in General Physics: Minor Course. *Weekly through the year.*

By Dr. James Barnes:

By Mr. L. E. Jewell:
The Elements of Physical Astronomy. *Weekly through the year.*

The laboratory work for undergraduates has been under the direction of Dr. Whitehead, Dr. Barnes, Mr. Uhler, and Mr. Porter. The work in Applied Electricity has been directed by Dr. J. B. Whitehead, and that of the astronomical observatory by Mr. L. E. Jewell. The advanced work and the original investigations have been under the direction of Professors Ames and Wood.

In the Physical Seminary, papers on the following subjects were read and discussed:

Professor Ames—Introductory Remarks concerning Radio-activity; the Nature of White Light.
Professor Bliss—Inertia of Electrical Charges in Motion.
Dr. Whitehead—The Ratio of e/m; values of e and m.
Dr. Barnes—Properties of the Ether.
H. S. Uhler—Properties of Thorium; Explanation of Chemical Combination on the Electrical Theory of Matter.
J. T. Porter—History of Ionization; The General Properties of Matter.
S. J. Allan—Ionization of the Atmosphere; Velocity of α and β Rays.
J. A. Anderson—Theories of the Auroras; Stability of Systems of Electrons.
T. S. Carter—Electrical Theories.
F. L. Cooper—Radio-active Substances.
T. S. Elston—Photoelectric Phenomena; Velocity of Ions.
D. V. Guthrie—Theories of Gravitation.
L. G. Hoxton—Mechanism of Radiation and Absorption.
R. E. Loving—Laws of Discharge at Low Pressures; Electrical Theories of Lorentz and Larmor.
B. N. Simin—Explanation of X-rays.

Fifteen advanced students have followed Physics as their principal subject. Three of these have absolved the requirements for the degree of Doctor of Philosophy, their names and the titles of their dissertations being as follows:

R. E. Loving—The Arc in High Vacua.
Other investigations now in progress in the laboratory or completed during the year are:

1. A Redetermination of Rowland's Standard Wave-lengths, by Professor Ames and Dr. Barnes.
3. The Magnetic Effect of Electric Displacement Currents, by Dr. Whitehead.
4. A Study of the Magnetic and Electrostatic Deflections of the $\beta$ Rays from Radium, by S. J. Allan.
8. The Verification of Talbot's Law in Photometry, by E. P. Hyde.

Mr. L. E. Jewell has devoted his time during the year to keeping in good condition the dividing engines of the laboratory, and to the construction of a new screw and nut to replace those now in use on one of the machines. The work on this has so far progressed that it is now certain that this screw is far more accurate than any of those made in the past.

During the year Mr. Theodore Marburg has continued his annual gift of two hundred dollars for the purpose of buying books for the use of the physical department.

JOSEPH S. AMES,
Professor of Physics and Director of the Laboratory.

Chemistry

The lecture and class room instruction in Chemistry which has been given during the past year is indicated below:

By Professor Remsen:

- The Chemistry of the Compounds of Carbon. Three times weekly through the year.

Attendance: First half-year, 26; Second half-year, 26.

Meetings for reports on the Current Progress of Chemistry. Weekly through the year.

Attendance: First half-year, 27; Second half-year, 27.
By Professor Morse:
Inorganic Chemistry. *Twice weekly through the year.*
Attendance: First half-year, 24; Second half-year, 24.

By Professor Jones:
Physical Chemistry. *Three times weekly through the year.*
Attendance: First half-year, 17; Second half-year, 17.

By Professor Renouf:
General Chemistry for Undergraduates (Minor Course). *Four times weekly, first half-year.*
Attendance: 25.
Chemistry of the Compounds of Carbon for Undergraduates (Major Course). *Four times weekly, second half-year.*
Attendance: 27.

The number of students working in the laboratory was 118 during the first half-year and 117 during the second. Forty-two of this number were graduates, and thirty-four of these were following Chemistry as their principal subject.

Professor Remsen has directed the work in organic chemistry, and under his supervision Messrs. Bradshaw and Cobb have been engaged upon their dissertation work for the degree of Doctor of Philosophy.

Dr. Tingle has assisted Professor Remsen, and under his direction Mr. Hoffman has completed his work for the degree of Doctor of Philosophy.

Professor Morse has had charge of the work in quantitative chemistry, and under his supervision Dr. Frazer and Messrs. Gray, Straus, Taylor, and Williams have been engaged in research.

Professor Jones has directed the work in physical chemistry, and under his guidance Dr. Bassett and Messrs. McMaster, Ross, and West have been occupied with the investigation of certain problems in physical chemistry.

The laboratory work of the undergraduates in the major course and the work in qualitative analysis have been under the direction of Professor Renouf.

Dr. Gilpin, aided by Messrs. Blanck and Brunel, has directed the laboratory work of the undergraduates of the minor course.

Under grants from the Carnegie Institution to Professors Morse and Jones, Doctors Frazer and Bassett have been engaged in the investigation of problems connected with osmotic pressure and with the lowering of the freezing points of concentrated solutions.

Dr. S. F. Acree was appointed Henry E. Johnston Scholar in the department of Chemistry for the year 1904-05.
Seven students have absolved the requirements for the degree of Doctor of Philosophy. Their names and the titles of their dissertations are given below:

E. C. Bingham.—The Conductivity and Viscosity of Solutions of Certain Salts in Mixtures of Acetone with Methyl Alcohol and Ethyl Alcohol and Water.

H. Bradshaw.—I. Relative Rates of Oxidation of Ortho, Meta, and Para Compounds. II. Orthosulphaminebenzoic Acid and Related Compounds. III. Some Derivatives of Phenylglycocolorthosulphonic Acid.

P. H. Cobb.—A Further Investigation of the Chlorides of Orthosulphobenzoic Acid.

W. E. Hoffman.—Camphoroxalic Acid Derivatives.

H. P. Straus.—An Electrolytic Method for the Preparation of Pure Caustic Alkalis for the Laboratory.


A. P. West.—A Study of the Effect of Temperature on Dissociation and on the Temperature Coefficients of Conductivity in Aqueous Solutions.

Volumes XXXII and XXXIII of the American Chemical Journal have been issued during the academic year.

H. N. Morse,
Professor of Analytical Chemistry.

Geology

The Geological Laboratory was open daily during the year for the work of both advanced and undergraduate students. Lectures and class-room work were conducted as follows:

(a) General Geology, by Dr. Swartz. Four lectures and one afternoon in practical work each week throughout the year.

(b) Historical Geology; by Professor Clark. Two lectures each week throughout the year.

(c) Systematic Paleontology, by Professor Clark and Dr. Swartz. One afternoon of laboratory work each week throughout the year.

(d) Geological Physics, by Professor Reid. Two lectures each week throughout the year.

(e) Petrography, by Professor Mathews. Three lectures and two afternoons of laboratory work each week throughout the year.

(f) Geological Field Methods, by Professor Mathews. One afternoon each week for one-half year.
(g) Physiography, by Professor W. M. Davis. *Fifteen lectures, with laboratory exercises, in January and February.*

(h) Geological Conferences. *Weekly, throughout the year.*

*Original Work and Publications.* Original work was carried on by Professor Clark, in conjunction with several assistants, on various phases of Maryland geology, the results of which are appearing from time to time in the reports of the Maryland Geological Survey and other scientific publications. Professor Clark was also engaged in a general study of the Mesozoic and Cenozoic Echinodermata of the United States, in conjunction with Mr. M. W. Twitchell, a graduate student. He was also actively employed in the management of the State Geological Survey and State Weather Service, and in the supervision of the publications of those two bureaus, both of which are carried on under the auspices of the university. He also continued his work as Commissioner on behalf of the State of Maryland in the supervision of the survey of the Mason and Dixon Line.

Professor Reid continued his glacial and seismological studies. The Milne seismograph continues to record earthquakes occurring at great distances; a Bausch-Omori seismograph, lent by the U. S. Coast and Geodetic Survey, has also been recording for a part of the year; and a new instrument, consisting of a pendulum nearly 50 feet long, is in course of construction in the laboratory. Dr. Reid is in charge of the study of all earthquake records received by the U. S. Geological Survey.

Professor Mathews, in conjunction with his study of the geology of the Piedmont Province of Maryland, has presented several papers before the scientific societies, which have subsequently been published in their transactions. These papers give Professor Mathews' views on the general geological history of the Piedmont, as well as the results of detailed studies carried on by graduate students under his personal supervision. Dr. Mathews was also engaged during much of the year as Assistant State Geologist in directing certain phases of the State Geological Survey work, and in editing the various publications of that bureau. This work has occasioned an exhaustive study of the history of the boundaries of Maryland counties and some preliminary study of the Pennsylvania-Maryland controversies of the eighteenth century.

Associate Professor Shattuck was employed during the year in the completion of his studies in the Coastal Plain. The reports on St. Mary's and Calvert counties were prepared together with the Patuxent and St. Mary's folio, the latter to be published in cooperation with the U. S. Geological Survey. Dr. Shattuck had the assistance in this work of Dr. B. L. Miller and Mr. A. Bibbins.

Dr. Swartz continued his investigations in the Devonian formations of Ohio, securing important results regarding the correlation of the formations in the northern and southern portions of that State. He also undertook,
with the assistance of Messrs. Prouty and Stephenson, graduate students of the department, a study of the Devonian and Silurian deposits of western Maryland preparatory to more elaborate studies along these lines.

Dr. Fassig continued his detailed study of the climate of Baltimore and has practically completed his monograph on this subject, which will be printed as the second volume of reports of the State Weather Service. Dr. Fassig, as meteorologist of the State Weather Service, also carried on during the year a number of special studies, in addition to his regular work as Chief of the Baltimore office of the U. S. Weather Service. He has recently been placed in charge of the Investigations of the Upper Atmosphere by the U. S. Weather Service, and will conduct a series of studies at Mt. Weather, Va.

Several other investigations were started by members of the department, which will result in later publications.

Excursions. Numerous excursions were made with the graduate and undergraduate students into characteristic areas in the Coastal Plain and the Piedmont Plateau, as in former years. These excursions are regarded as an important adjunct to the class-room and laboratory work.

Scientific Societies. The fortnightly meetings of the Geological Society of Washington, as well as the meetings of the National Geographic Society, were attended from time to time during the winter by the instructors and students. By the courtesy of the Geological Society of Washington the graduate students of this department are elected to non-resident membership in that body.

Coöperation. Active coöperation was maintained, as in the past, with the chiefs of several of the National and State bureaus. The coöperation of the U. S. Geological Survey, through its chief, Hon. Charles D. Walcott, and of the U. S. Weather Bureau, through its chief, Professor Willis L. Moore, has been of much importance to the work of the department. Dr. L. A. Bauer is permitted annually by the Superintendent of the U. S. Coast and Geodetic Survey to give lectures on the subject of Terrestrial Magnetism to the students of the geological and physical departments.

Apparatus and Collections. Several valuable additions have been made to the apparatus and collections during the year. The library has been considerably enlarged by gifts of books and maps. Professor Cleveland Abbe has in particular added many books to the meteorological library which bears his name.

Wm. Bullock Clark,
Professor of Geology.
Zoology and Botany

During the past academic year the Biological Laboratory has been open for advanced and collegiate students, and lectures and class-room instruction have been given as follows:

By Professor Brooks:
Advanced Zoology. For graduate students. Two lectures a week on Theoretical Zoology, from October 1 to May 1.
Zoological Seminary. Twice a week in January, 1905. The work of the Seminary was based upon the Entwickelungsgeschichte of Korschelt and Herder.
Meeting of graduate students for reports on the current literature of Zoology and Botany. (With Dr. Andrews and Dr. Johnson.) Weekly throughout the year.

By Dr. Andrews:
General Biology. Nine hours a week, to April 1.
Elements of Embryology. Twice a week, from April 1 to end of session.

By Dr. Johnson:
Morphology of Plants. For graduate students. Two exercises a week, from October to April.
Physiology of Plants. For graduate students. From October to April.
Elementary Botany. Four times a week, from March 15 to end of year.
Botany (undergraduate elective). Twice a week, from January to April.

Dr. Grave:
Echinoderms. For graduate students. Five lectures in April.
Elementary Zoology. Four times a week, from October 1 to March 15.
Zoology (undergraduate elective). Twice a week throughout the year.

Advanced Work in Zoology and Botany

The degree of Doctor of Philosophy was conferred upon E. W. Gudger, whose dissertation is on the Development and Breeding Habits of the Pipe Fish; upon Samuel Rittenhouse, whose dissertation is on the Life History and Anatomy of Turritopsis and Stomatoca; and upon Forrest Shreve, whose dissertation is on Sarracenia purpurea.
Printed copies of the dissertation of D. N. Shoemaker on Hamamelis Virginiana, of O. C. Glaser, Ueber den Kannibalismus bei Fasciolaria tulipa (var. distans) und deren Larvale Excretionsorgane, and of E. W. Gudger have been sent to our library in accordance with our rules. The dissertation of R. P. Cowles, on Phoronis architecta, has been printed, but not yet received by our library. The dissertation of D. H. Tennent, on the Life-history of Gasterostomum, is in press.
The dissertation of C. P. Sigerfoos, who received our degree of Doctor of Philosophy in 1897, has not yet been printed.

A Johnston Scholarship was awarded to Henry S. Conard, who gave four lectures on the Morphology of Stems, and studied the structure and life-history of a fern (Dewustaedtia punctulata), completing the study of the root. The Adam T. Bruce Fellowship was awarded to O. C. Glaser, who continued his study of the development of Gasteropods. A university fellowship was awarded to Forrest Shreve, who completed a study of the development of Sarracenia purpurea, now in press.

The following publications by investigators in the laboratory have appeared during the year:

The Sperm-receptacle of Cambarus, by E. A. Andrews. (Univ. Circ. 178.)

The Oyster (new and revised edition), by W. K. Brooks. (Johns Hopkins Press.)


Nymphaea and the Monocotyls, by H. S. Conard. (Science.)

The Olympic Peninsula of Washington, by H. S. Conard. (Science.)


The Tentacle Reflex in a Holothurian, Cucumaria pulcherrima, by Caswell Grave. (Univ. Circ., No. 178.)

Notes on the Development of Phytolacca decandra, by I. F. Lewis. (Univ. Circ., No. 178.)

Gadow's Hypothesis of "Orthogenetic Variation" in Chelonia, by E. E. Coker. (Univ. Circ., No. 178.)

Seed-development in the Piperales and its bearing on the Relationship of the Order, by D. S. Johnson. (Univ. Circ., 178.)

The Life History of Gasterostomum, by D. H. Tennent. (In press.)

The Development of Sarracenia purpurea, by Forrest Shreve. (Univ. Circ., No. 178.)


The following are complete and ready for publication:

Dipleurosoma: A New Genus of Pyrosoma, with two plates, by W. K. Brooks.

The Notochord of Salpa, with one plate, by W. K. Brooks.

The Life History of Turritopsis, with six plates, by W. K. Brooks and S. Rittenhouse.
Physiology

The Life History of Stomatoca, with three plates, by W. K. Brooks and S. Rittenhouse.

On Rearing Marine Larvae, by Caswell Grave.

The Marine Laboratory of the U. S. Fish Commission at Beaufort, N. C., was directed this year, as in previous years, by Dr. Grave, and several graduate students from our laboratory accepted the invitation of the Commission, and spent the summer there in zoological research.

A party of four, from our laboratory, accepted the invitation of Dr. A. G. Mayer, the director of the Carnegie Marine Laboratory, at the Dry Tortugas, and spent part of the summer there in research.

Dr. Johnson had charge, during the summer, of the instruction in Botany, at the laboratory of the Brooklyn Institute at Cold Spring Harbor.

I desire to express my thanks to the Zoological Station, at Naples, for specimens of Salpa pinnata which were collected and preserved for me there this year, as in the preceding year.

WILLIAM K. BROOKS,
Professor of Zoology.

Physiology

The courses given during the past academic year were as follows:

By Professor Howell:

1. The physiology of nutrition and of the special senses. Lectures, recitations, and demonstrations. Four times a week from October to the Christmas recess.

2. The physiology of muscle and nerve and of the central nervous system. Lectures and demonstrations. Four times a week from January to March 15.

3. The physiological journal club, composed of instructors and advanced students, and organized for the systematic presentation and discussion of current literature. Once weekly from October to June.

4. The Physiological Seminary, composed of the instructors and advanced students, and organized for the purpose of discussing general topics in physiology. During the past session certain general addresses were presented, such as “Les rapports de la Médecine avec la Physiologie et la Bacteriologie,” by de Cyon, and “Ueber die Grenzen des Naturerkennens” by du Bois-Reymond.

By Professor Howell, assisted by Drs. Dawson, Erlanger, and Guenther:

A laboratory course in experimental physiology. Daily from 10 a. m. to 5 p. m., during October, November, and December.
By Dr. Dawson.
1. The physiology of circulation and respiration. *Three times weekly from March 15 to June.*
2. Laboratory course as specified above.

By Dr. Erlanger.
1. The physiology of secretion, digestion, and nutrition. *Three times weekly from March 15 to June.*
2. Laboratory Course as specified above.

Mr. A. E. Guenther was reappointed Fellow in Physiology, but resigned this position early in the session to accept an assistantship in Physiology made vacant by the resignation of Dr. Martin. Dr. Martin had resigned his position to accept an instructorship in Purdue University. Later in the session Dr. Robert Retzer received the appointment of Fellow in Physiology, and was engaged during the remainder of the year in an investigation of the finer structure of the auriculo-ventricular muscle bundle of the heart.


W. H. Howell,
Professor of Physiology.
Anatomy

The courses in Anatomy which have been given during the past academic year, are as follows:

By Professor Mall and Drs. Lewis, Streeter, and Bean.
Systematic course in human anatomy.

By Professor Mall and Drs. Harrison, Lewis, and Sabin.
Research in anatomy, embryology, and histology.
Advanced human embryology.

By Drs. Harrison, Sabin, and Knower.
General histology.
Histology of the organs.
Neurology.

By Dr. Harrison.
Lectures on histology and organology.
Experimental embryology.

By Dr. Lewis.
Study-room course in anatomy.
Topographical anatomy.
Special course in human anatomy for physicians.

By Dr. Sabin.
Lectures on neurology.
Advanced neurology.

By Dr. Knower.
Lectures on embryology.
Practical embryology.

By Dr. Streeter.
Advanced neurological technique.

By Dr. Bean.
Recitations in anatomy.
Conferences in anatomy.

By Dr. Howard.
Medical anatomy.

By Dr. Cushing.
Surgical anatomy.

During the past academic year experimental work upon the development of the tissues has been continued by Drs. Harrison, Lewis, and Knower, and advanced students, which has led to a number of important contributions.

Organ units have been studied by Drs. Mall, Sabin, and others, and several papers upon this subject are ready for publication.
Dr. Streeter has been engaged in the study of the tracts of the brain in early human embryos, and Dr. Sabin upon those that are medullated at birth. The brain of the negro has been compared with that of the European by Dr. Bean, who has found that there are marked racial characteristics.

Over fifty specimens have been added to the collection of human embryos, the anatomy of which is being studied by members of the staff, as well as by investigators at a number of other universities.

During the year Vol. 3 of the *American Journal of Anatomy*, Vol. 1 of the *Journal of Experimental Zoology*, and an anatomical number of the *Johns Hopkins Hospital Bulletin* were edited by Drs. Knower, Harrison, and Mall.

The following publications by members of the staff have appeared during the year, forming Vol. 9 of the "Collected Papers."

G. L. Streeter—The development of the cranial and spinal nerves in the occipital region of the human embryo. (*American Journal of Anatomy*, IV.)


B. D. Myers—Fixation of tissues by injection. (*Jour. Applied Microscopy*, VI.)


A. G. Pohlman—Concerning the embryology of kidney anomalies. (*Amer. Med., VII.*)
Greek

Under the direction of Professor Gildersleeve the advanced students of Greek have been organized into a Greek Seminary. According to the plan of the Seminary, the work of each year is concentrated on some leading author or some special department of literature. During the past year the work has been in the Attic Orators.

In the Seminary proper, which met twice a week during the academic year, the orators chiefly studied were Antiphon, Lysias, Isocrates, Isaeus, and Demosthenes. Special attention was paid to the development of language and style and to the antique canons of aesthetic criticism. The members were required to present in turn exegetical and critical commentaries on select portions of the orators, to make analyses of speeches, and to prepare introductory lectures and papers on special points.

The work of the Seminary was supplemented by the study, under the professor's guidance, of the rhetorical writings of Dionysius of Halicarnassus, and by courses of lectures on Greek Rhetoric and on the History of Attic Oratory.

Besides the Seminary course proper, Professor Gildersleeve conducted a series of twenty-one exercises in extemporaneous translation from Greek into English and English into Greek, and lectured once a week after the first of January on Pindar's Nemean Odes.

Dr. C. W. E. Miller conducted auxiliary courses in Demosthenes, Aristotle's Rhetoric, and Ps.-Longinus, twice weekly through the year. He also conducted the Greek Journal Club, which met weekly through the year.
Undergraduate courses were conducted as follows:

**Associate Professor Spieker:**

Demosthenes, *Oratio de Corona*. Twice weekly, first half-year.
Aristophanes, *Ranae*. Twice weekly, second half-year.
Demosthenes, *Oratio in Leptinem*. Three times weekly, first half-year.
Sophocles, *Antigone*; *Lyric Poets*. Three times weekly, second half-year.
Euripides, *Medea*. Three times weekly, second half-year.

**Prose Composition (two classes). Weekly, through the year.**

**Associate Professor Miller:**

Homer, *Iliad* (book vi); Herodotus, (book viii); Prose Composition. Three times weekly, through the year.

Undergraduates read privately for examination the following books:

Aeschylus, *Prometheus*.
Aristophanes, *Clouds*.
Homer, *Odyssey* (books i, ix, x).

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**B. L. Gildersleeve,**  
*Professor of Greek.*

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**Latin**

The organization and plan of the Latin Seminary are similar to those adopted in the department of Greek. Each year special attention is given to some one leading department of the literature. During the last session the centre of work was the Roman historians, more especially Livy, Tacitus, and Suetonius. Under the direction of Professor Smith, the Seminary met twice a week throughout the year. The members presented in turn papers founded upon various special investigations. They also gave critical and exegetical commentaries upon given passages of Sallust, Livy, Suetonius, Tacitus, Ammianus Marcellinus, and the Scriptores Historiae Augustae. The work of the Seminary was accompanied by a course of lectures on Livy and Tacitus given by the Director.

Besides the Seminary course and the auxiliary work, Professor Smith lectured once a week until February on Roman Historiography. He also held a conference once a week throughout the year on Roman Rhetoric, using as a basis the Incertus Auctor Herennium. He also conducted a Journal Club which met fortnightly throughout the year to report and discuss recent work of interest in the field of Latin philology.
Associate Professor Wilson lectured once a week throughout the year on Latin Epigraphy. This course was a continuation of the one given in 1903-4, and the lectures were accompanied by a series of practical exercises in the interpretation of selected inscriptions. He also met the advanced students each week for the rapid reading of the Roman historians.

Dr. L. C. Barret met the advanced students once a week during the second half-year for the study of Oscan and Umbrian.

Undergraduate courses were given as follows:

By Professor Smith:
History of Roman Literature. Weekly through the year.

By Associate Professor Wilson:
Seneca. Two hours weekly, first half-year.
Valerius Flaccus; Statius. Two hours weekly, second half-year.
Juvenal; Pliny. Three hours weekly, first half-year.
Plautus; Terence. Three hours weekly, second half-year.

By Dr. Barret:
Livy, two books. Three hours weekly, first half-year.
Horace (selections). Three hours weekly, second half-year.
Nepos (selections). Two hours weekly, first half-year.
Cicero; Ovid (selections). Two hours weekly, second half-year.
Prose Composition (three classes). Three hours weekly, through the year.

Undergraduates read privately for examination the following books:

Cæsar, Bellum Civile, book i.
Tacitus, Agricola.
Ovid, Fasti (selections).
Vergil, Aeneid, books ix and xii.
Quintilian, book x.
Plautus, Miles Gloriosus.

KIRBY FLOWER SMITH,
Professor of Latin.

Sanskrit and Comparative Philology

The plan of the Vedic Seminary provides for three well-defined subjects treated in rotation, each during one academic year. The subjects are, respectively, the Rig-Veda; the Atharva-Veda; and Vedic Prose. These courses furnish within the designated time the principal phases of early Indian language, literature, religion, and institutions.

The prose of the Veda was the subject treated in the Seminary during
the session of 1904-5. Vedic prose is present in three principal forms: Brāhmaṇa, Upaniṣad, and Śūtra. The so-called Brāhmaṇas are the earliest Hindu texts written in prose; they represent, indeed, the earliest prose in the entire domain of Indo-European speech. As regards their contents the Brāhmaṇas hold the same relation to the hymns of the Veda as the Talmud does to the Old Testament. They deal with the theological exposition of the Vedic hymns and the priestly sacrifices which accompanied their recital. They abound in mythical accounts of the origin and occasions of the sacrifice; this calls forth some of the most interesting legends of ancient India, such as the story of the flood, the advance of Aryan civilization in India, and the like. An introductory description of the language, style, and literary relations of these texts was followed by the critical interpretation of selections.

The Upaniṣads are a class of works devoted to theosophic and philosophical speculations on the nature of the world and man. As a specimen of this literature the sixth book of the Chāndogya Upaniṣad was studied. This contains one of the clearest statements of Hindu Monism, being very directly the forerunner of the later Vedānta Philosophy, that Philosophy which has growingly engaged the attention of Western thinkers from Schopenhauer to the present time.

As a specimen of the language of the Śūtras, the compendious, or 'rule,' form of Vedic rites and customs, the wedding ceremonies of the Grīhya Śūtra, or 'House-book' of Āyālāyana, were read and analyzed.

Sanskrit is one of the Indo-Iranian (Aryan) languages, the other being Persian. The Avesta of ancient Persia is a natural and necessary supplement to the Veda of India. The relation between the two is so close that the study of ancient Persian literature is rarely undertaken through any other channel than that of the Veda. Professor Geldner's excellent edition of the Avesta is now made more accessible through Professor Bartholomae's recent, authoritative lexicon of the Ancient Iranian dialects. A class of six advanced scholars were conducted through Avestan grammar and selected specimens of the literature. The course is to be continued next year.

During the second half-year there was a second, more elementary course of Vedic study. This is designed to be an introduction to the Vedic dialect, and to mark its relation to Classical Sanskrit. A short preliminary course in Vedic grammar was followed by the analysis of some hymns of the Rig-Veda. The metres, the accentuation, the special phonetic, morphological, and lexical peculiarities of the language of the hymns claimed the chief interest.

In Classical Sanskrit there were courses in the Hitopadeśa and the Law Book of Manu; also the regular beginners' course in Sanskrit, two hours weekly during the session, which is the formal introduction to the study of Indian philology, as well as to the Comparative Grammar of the Indo-
Maurice Bloomfield,  
Professor of Sanskrit and Comparative Philology.

Oriental Seminary

In the Oriental Seminary, under the direction of Professor Haupt, thirty-five courses in the various departments of Oriental research were given during the past year, special attention being paid to Biblical Philology and the Cuneiform Inscriptions bearing on the Scriptures.

Nineteen hours during the first half-year, and eighteen during the second, were devoted to the study of Hebrew and the Old Testament. In the Old Testament Seminary, two hours weekly through the year, Professor Haupt gave a Critical Interpretation of the Books of Ruth and Lamentations.
He also conducted a series of weekly exercises in *Hebrew Prose Composition*, the students translating idiomatic English sentences into Hebrew. The *Ancient Versions of the Book of Ruth* (Greek, Latin, Syriac, Aramaic) were studied during the first half-year under the guidance of Drs. Johnston, Foote, Blake, and Ember. Dr. Rosenau met a class for the reading of *Unpointed Hebrew Texts*, besides conducting a course in *Post-Biblical Hebrew*, two hours weekly through the year. Dr. Blake gave a series of lectures, through the year, on *Hebrew Phonology*, and conducted a course in *Semitic Epigraphy* (Siloam Inscription, Moabite Stone), during the first half-year. The instruction in *Elementary Hebrew* was given by Professor Haupt and Dr. Foote, two hours weekly through the year. Dr. Foote also conducted the *Second Year's Course in Hebrew*, and gave a course of lectures on the *Literature of the Bible*, on the basis of the Authorized Version, two hours weekly through the year. Dr. Ember conducted courses in *Rapid Reading of the Hebrew Bible*, *Neo-Hebraic Literature*, and *Hebrew Conversation (Askenazic)*, through the year, and *Hebrew Conversation (Sephardic)* during the first half-year.

Dr. Rosenau gave a series of lectures on the *Talmud* during the first half-year, and Dr. Ember met a class for the *Reading of the Talmud*, weekly, through the year.

Associate Professor Johnston lectured on the *History of the Ancient East* (Egypt, Babylonia, Assyria, Persia, Israel, and Judah), and on *Biblical Antiquities*, two hours weekly through the year.

Professor Haupt conducted a course in *Comparative Semitic Grammar*, with special reference to the structure of the verb, and Dr. Blake gave a series of lectures on the *Comparative Syntax of the Noun and its Modifiers* during the first half-year.

In *Biblical Aramaic*, Dr. Blake gave a course in the elements of the grammar, followed by the interpretation of the Aramaic portions of the *Book of Ezra*.

In *Arabic*, Professor Haupt conducted weekly exercises in *Prose Composition*, and Professor Johnston met a class for the reading of extracts from the *Arabian Nights*. The instruction in *Elementary Arabic* was given by Dr. Blake.

In *Ethiopic*, a second year's course was conducted by Dr. Blake during the first half-year, selections from the *Synaxaria* being read.

Five hours weekly during the first half-year, and four hours weekly during the second, were devoted to the study of *Assyriology*. Professor Haupt interpreted his edition of the *Babylonian Nimrod Epic*, and explained selected *Sumerian Hymns and Penitential Psalms* in his Akkadian and Sumerian Cuneiform Texts and in the fourth volume of *Sir Henry Rawlinson's Cuneiform Inscriptions of Western Asia*. He also conducted weekly exercises in *Assyrian and Sumerian Prose Composition*, the students translating Hebrew and Arabic sentences into Assyrian, and cuneiform Assyrian into
Sumerian. Professor Johnston met a class, during the first half-year, for the interpretation of the Code of Hammurabi, and Dr. Foote conducted a course in Elementary Assyrian.

In Egyptology, Professor Johnston conducted, through the year, classes in Hieroglyphic Egyptian (Erman's Christomathy), and the reading of Select Hieratic Papyri (Orbiney Papyrus). He also gave a course in Coptic, throughout the year.

In Malaya-Polynesian Philology, Dr. Blake gave, throughout the year, elementary and advanced courses in Tagalog, the principal language of the Philippine Islands, and a course in Hokan, the most important dialect of northern Luzon. During the second half-year he conducted a class in Malay, and gave a series of lectures on the Philippine Islands with special reference to the native tribes.

During the second half-year Dr. John R. Swanton, of the Bureau of American Ethnology, Washington, gave a series of lectures on American Ethnology, with special reference to the social organization and the mythology of the American races, and conducted a course in the Dakota language, with interpretation of selected texts.

As delegate of the United States Government, the Smithsonian Institution, the U. S. National Museum, the American Oriental Society, the Oriental Club of Philadelphia, and the Johns Hopkins University, Professor Haupt attended the Fourteenth International Congress of Orientalists, held at Algiers, April 19-26. He presented three papers at the Congress: (a) Greek Philosophy in the Old Testament; (b) Etymology of the name Sadducee; (c) Hebrew Poetry.

At the meeting of the Society of Biblical Literature, held in New York, December 27-28, Professor Haupt read three papers: (a) The Poetic Form of the Twenty-third Psalm (published in the American Journal of Semitic Languages, vol. xxi, No. 3, April, 1905); (b) Epicureanism and Stoicism in the Old Testament; (c) Difficult Passages in the Book of Ruth. Dr. Foote presented a paper on the Poetic form of Nahum i.

Before the University Philological Association the members of the Oriental Seminary read the following papers:—Professor Haupt (Dec. 16): Biblical Pessimism; Professor Johnston (Jan. 20): Erman's Christomathy and Glossary; Dr. Foote (March 17): Studies in Higher Criticism; Dr. Blake (April 21): Forms of the Hebrew numeral 'five.' Dr. Blake's paper on Heb. kamissâh kamîsûm and his paper on the Bisayan dialects, which he presented at the meeting of the American Oriental Society, held at Springfield, Mass., April 27-29, are published in the first half of vol. xxvi of the Journal of the American Oriental Society, pp. 117-136.

The third part (pp. 233-412) of the fifth volume of the Contributions to Assyriology and Comparative Semitic Grammar, edited, with the cooperation of the Johns Hopkins University, by Professor Haupt in conjunction with

Professor Haupt's new metrical version of the Book of Ecclesiastes, with Introduction and Explanatory Notes, was issued by the Johns Hopkins Press at the end of the session. His German translation of the Book was published at the beginning of the session under the title Kohelet oder Weltschmerz in der Bibel (Leipzig: J. C. Hinrichs). His critical edition of the Hebrew text of Ecclesiastes, which has been in type since July, 1904, will appear in No. 1 of Vol. vi of the Johns Hopkins Contributions to Assyriology and Comparative Semitic Grammar.

Mr. Wm. G. Seiple presented himself as a candidate for the degree of Ph. D. The title of his dissertation was The Seventy-second Psalm, and his subjects were Hebrew, Assyrian, and Greek. The dissertation of the Rayner Fellow in Semitic, Dr. Ember, The Pluralis Intensiva in Hebrew was published at the end of the session in Vol. xxi, No. 4 of The American Journal of Semitic Languages and Literatures.

**Paul Haupt,**

*W. W. Spence Professor of the Semitic Languages.*

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**English**

1. Advanced Courses.

The English Seminary, conducted by Professor Bright, met twice a week throughout the year, in sessions of two hours each. The earliest English Versions of Scripture were studied during the first half-year. The following subjects were investigated: The report of Bode's Translation of the Gospel of St. John; the relation of the Cedmonian poems to Scripture; the Kether Psalm; the Vespasian Psalter; the Paris Psalter; Spelman's Psalter; Eadwine's Canterbury Psalter; a survey of all the reported MSS. of the Psalter glossed or translated in Anglo-Saxon times; the Hymns attached to the Psalter; the Lindisfarne and Rushworth glossed texts of the Gospels; the West-Saxon Version of the Gospels. During the second half-year the poetry of Spenser was studied. The chief portion of the time was devoted to an historical study of the Shepheard's Calendar, and to an histori-
cal survey of Pastoral Literature. All the remaining minor poems of Spenser were analyzed with reference to the literary and philosophic traditions and influences of their production, and with reference to Spenser's influence upon his followers.

Professor Bright met a class (once a week throughout the year) for the interpretation of the Blickling Homilies, and for a study of the ecclesiastical history of the Anglo-Saxons (on the basis of The English Church from its Foundation to the Norman Conquest, by William Hunt).

At the beginning of the year Professor Bright gave ten lectures on the Principles of Phonetics.

A course in Historical English Grammar (two hours a week throughout the year) was conducted by Professor Bright. During the first half-year, lectures were delivered on the history of English Sounds and Inflections. Special problems in the History of English Syntax were studied during the second half-year. The director of the course gave a number of lectures, and the members of the class prepared and read reports of the history of opinion on specially assigned subjects.

The Journal Club of the English Seminary was conducted by Professor Bright. Sessions of two hours each were held on alternate Fridays throughout the year for reports of the current philological periodicals, reviews of new books, and the presentation and discussion of papers representing such independent investigations as were less directly connected with the concurrent work of the Seminary.

Professor Browne lectured once a week during the first half-year on the romantic movement in English Literature, from the first reactions against the classical school down to the present time. Papers by members of the class on subjects suggested by the instructor were also read.

Professor Browne also lectured once a week during the second half-year on the English drama of the eighteenth century.

2. College Courses.

The English major class in Anglo-Saxon, using Bright's Anglo-Saxon Reader as text book, was met twice a week by Dr. Nathaniel E. Griffin.

Professor Browne met the English major class twice a week. One hour weekly was given to readings from the Scottish poets of the fourteenth, fifteenth, and sixteenth centuries, and one hour weekly was given to (a) the Elizabethan poets, especially Shakespeare, and to (b) the literature of the fourteenth century.

The English minor class was conducted by Professor Browne. The work consisted of readings of Early and Middle English texts (two hours a week), with Morris and Skeat's Specimens as the text-book, and general English literature (two hours a week), with Arnold's Manual of English Literature.

A class in Rhetoric and English Composition met three times a week throughout the year. Until the seventh of November this class was taught by Professor Greene. The class was then divided into three sections, and
Mr. Albert H. Licklider and Mr. Christopher Longest assisted in the work of instruction and in the reading of manuscript. Theory was imparted by means of text-book (A. S. Hill's Principles of Rhetoric), lectures, and discussions; practice was obtained by the writing of about fifty short papers, of which a few from each set were read and criticised in the class-room, and by the writing of five essays, three of which (one in each term) were read and criticised privately with the writers. The weekly practice in writing was combined with an examination of the usage of standard writers. Each member of Section A made a careful study of the style of one prose author (in most cases of a nineteenth-century author), and presented the results of his study in a series of short papers. The class-work included a study of representative passages of description (Baldwin's Specimens of Prose Description). The members of Sections B and C made a careful study of specimens of standard prose, as contained in Brewster's Studies in Structure and Style and in Lewis's Specimens of the Forms of Discourse, and presented a series of short papers containing the results of their study. The members of the three sections read the poems contained in Palgrave's Golden Treasury of Songs and Lyrics, and wrote a series of short papers upon topics suggested by their reading.

Mr. Charles A. Myers conducted, once a week, a class in English Composition, primarily to supply additional instruction for students in special need of further training. In addition to those who were required to follow the course, a number of students voluntarily improved the opportunity thus afforded them.

A class in English Literature met Professor Greene three times a week throughout the year. This class made a general survey of English Literature from the beginning to the Restoration. A detailed study was made of the works of Chaucer, Spenser, and Shakspere. Of the writings of these poets, a considerable amount was studied critically in the class-room; and more was read by the members of the class in their private reading. In addition to the regular class-room exercises, five readings from the poems of Chaucer and eleven lectures upon the dramas of Shakspere were given for the benefit of those members of the class who desired to attend them.

An elective course in English Literature was given by Professor Greene, two hours a week, throughout the year. During the first half-year the study was centered upon the works of Dryden, Steele, Addison, Swift, and Pope; during the second half-year upon the works of Wordsworth, Coleridge, Keats, Shelley, and Byron. In connection with the weekly lectures and discussions the members of the class did a large amount of private reading. Each student prepared and read before the class a paper upon one of the principal writers studied.

3. Public Lectures on Literature.

The twelfth course of the Percy Turnbull Memorial Lectures on Poetry was given by Mr. George E. Woodberry. The lecturer treated his theme,
German

“Poetic Forms of Life,” in eight lectures: (1) Illusion; (2) The Poetic Form of Nature; (3) The Poetic Form of Intellect; (4) The Poetic Form of the Emotions; (5) The Poetic Form of the Will; (6) The Affirmation of Life; (7) The Denial of Life; (8) Reality.

James Wilson Bright,
Professor of English Philology.

William Hand Browne,
Professor of English Literature.

Herbert Eveleth Greene,
Collegiate Professor of English.

German

The German Seminary, under the direction of Professor Henry Wood, met three times weekly through the year. During the first half-year, the period in German literature from Goethe’s Italian Journey (1786) to the death of Schiller (1805) was studied. The subjects which received special attention were: Goethe’s period of pronounced classical sympathies in the drama and in lyrical poetry, and Schiller’s influence upon Goethe in the direction of subjectivism in poetry. The chief productions considered were Goethe’s Iphigenie, Egmont (also Schiller’s version of the play), and the Natürliche Tochter, Schiller’s later dramas and esthetical essays. Goethe’s direction of the theatre at Weimar was considered in detail. A comparative study of Schiller’s and Goethe’s Ballads was also made. During the second half-year, early Middle High German lyrical poetry was studied in Minnesangefrühling. The Austrian poets of the period were read in detail, and the question of song-books in Dietmar von Aist and Friedrich von Hausen was discussed. Heinrich von Morungen was studied with the object of constructing a text-book for the minnesong for modern students, from his poems.

The Germanic Society, which is composed of the director of the Seminary and the instructors and graduate students in German, met fortnightly through the year in an afternoon session. Besides reviews and reports, papers on the following subjects were presented, which gave from time to time preliminary results of studies still in progress: rhyme on penult and ultima in Otfried; the use of parenthesis in Kudrun; a fictitious Bible translator in the fifteenth century; ἀδὸν κατασφέσθη construction in Kudrun; etymology of guter Dinge sein, of behaupten, and of Fratze; the double infinitive in auxiliary use; the Bärenhäuter legend and Grimmelshausen’s Simplicissimus; Schiller’s religion; an early hostile judgment of Goethe; the suspended simile in modern German literature; the element of de-
scripive narration in Auerbach's earlier Dorfgeschichten; a suggested
German source for the refrain in Poe's Raven; Poe and Immermann.

Professor Wood gave a course in Gothic and the Elements of Comparative
German Grammar, twice weekly. Braune's *Gotische Grammatik* was studied.
For Comparative Grammar, Kluge, *Vorgeschichte der altgermanischen Dialekte*
was used.

Professor Wood read with a class in Old Norse—(twice weekly, first
half-year, and weekly, second half-year)—parts of the Prose Edda, the later
Asmundarsaga kappabana, supplementing the latter by a comparative
study of the Hildebrand and Helgi sagas. Noreen's shorter Icelandic
grammar and Holthausen's *Handbuch* were used as an introduction to
the course.

A course in German Romantic Literature was conducted by Professor
Wood, twice weekly, second half-year. The authors specially studied
were: Novalis, Friedrich Schlegel, August Wilhelm Schlegel, and Tieck.

In the undergraduate major course, Professor Wood conducted a class,
twice weekly, in Goethe's *Faust*, First Part, and Schiller's *Wallensteins*
(Lager and Piccolomini). *Wallensteins Tod* was assigned to the class as
private reading. In the Minor Course A, he conducted weekly exercises in
prose composition.

Associate Professor Vos gave an Introductory Course in Middle High
German, twice weekly during the first half-year. The phonology, inflec-
tion, and syntax were studied with the aid of Paul's *Mittelhochdeutsche*
Grammatik, and selections were read from Bachmann's *Mittelhochdeutsches*
Lesebuch.

He also gave a course, twice weekly during the first half-year, in *Kdurun*.
A preliminary acquaintance with this epic was presupposed, and the main
work of the class consisted of a critical examination of the main theories of
the composition and genesis of the poem, more especially in the light of
the recent investigations of Panzer.

During the second half-year he gave a course, twice weekly, in Old High
German. The *Althochdeutsche Grammatik* of Braune served as an introduc-
tion to the language, and selections from the chief prose monuments were
read from the *Althochdeutsches Lesebuch* of the same author. Considerable
attention was paid to the differentiation of dialects through contrasting the
phonological and morphological characteristics of the various extracts.

The following undergraduate courses were conducted by Associate
Professor Vos:

History of German Literature (Major Course), weekly. The text-book
read was Robertson's History of German Literature. The period covered
extended approximately from 1730 to 1850.

In the Minor Course A, the following works were read in class: Baumbach,
*Sommermärchen*; Seidel, *Leberecht Hühnchen*; Schiller, *Maria Stuart*;
Goethe, *Hermann und Dorothea*. Kleist's *Michael Kohlhaas* was assigned as
private reading.
In the course in Elementary German, three hours weekly, the instructor’s Essentials of German and Materials for German Conversation were used as introductory books. Subsequently Heyse’s L’Arrabbiata and four short stories of Baumbach were read.

Dr. Thomas S. Baker, Professor in the Jacob Tome Institute, gave a course of lectures, weekly through the year, on the history of English influence on German literature. An introduction was first given, on the literary influence of Germany upon England in the sixteenth century, after which the following subjects were considered; the Englische Comadianten in Germany; the German imitations and developments of the English weeklies, the influence of Milton; the German poetry of Nature in its relation to English models; the mock-epic; the influence of Richardson, Fielding, and Sterne on German literature.

Dr. William Kurrelmeyer gave undergraduate and special courses, as follows:

- Minor Course, Class B. Four hours weekly. Vos, Essentials of German; Gerstäcker, Germelshausen; von Wildenbruch, Das eßle Blut; Keller, Kleider machen Leute; Wilhelm, Einer muss heiraten; E. S. Buchheim, Elementary German Prose Composition; Whitney, German Grammar.

- Elective Course. Two hours weekly. Readings in Contemporary German Literature: von Wildenbruch, Harold, Der Letzte; Storm, Pole Poppenpæler; Gerstäcker, Germelshausen; von Ebner-Eschenbach, Die Freiherren von Gemperlein, Krambambuli; Keller, Kleider machen Leute, Romeo und Julia auf dem Dorfe; Meyer, Das Amulet; Hauptmann, Die Versunkene Glocke.

- Scientific German Readings. Two hours weekly. Lassar-Cohn, Die Chemie im täglichen Leben; Walther, Allgemeine Meereskunde; Wagner, Entwicklungsteiche; von Helmholtz, über Goethe’s Naturwissenschaftliche Arbeiten.

- Historical Readings. Two hours weekly. Freytag, Doktor Luther; von Sybel, Die Erhebung Europas.

Mr. Julius Hofmann conducted, in the major course, weekly exercises in prose composition. He also met a class of graduate students, twice weekly, for oral exercises in German. Correct pronunciation of German gave the key-note to the whole course. Idioms and synonyms were discussed, sentences were analyzed, and the laws governing sentence-accent enforced. The material used consisted of selected poems and prose essays.

**Henry Wood,**

Professor of German.
Romance Languages

Professor Elliott conducted advanced courses as follows:

Romance Seminary. Two hours fortnightly.

The work centered on the Fables of Marie de France, the object of the course being to acquire a working knowledge of the fable literature of Antiquity and the Middle Ages; to become acquainted with the characteristics of the Norman and Anglo-Norman dialects, in which some of the more important manuscripts are written; to present the fundamental principles of text-criticism and text-constitution, for which two fables were examined. A clear view of the morphology and phonetics of language was obtained as contrasted with those of the Isle-de-France; likewise of the Old-French construction as compared with that of the Modern French.

In addition to this, special investigations were made under Dr. Keidel's direction among the stray fables occurring in the Dialogus Creaturarum and the Bayeux Tapestry, and reports were given on the Mediæval fable collections occurring in the libraries of Austria and Italy.


The object here was to give the student an introduction to the phonetics and morphology of Folk and Low-Latin as the common basis for a scientific study of the Romance idioms. Meyer-Lübke's treatment of the subject in Gröber's Grundriss der romanischen Philologie was taken as the starting-point for this work, in connection with which lectures were given, contrasting the popular forms with the historic development of the classical forms.

Romance Club. Weekly.

The object of this organization, to which all members of the Romance department belong, is to foster a common interest in everything that concerns the study of the Romance idioms. Reviews of important journal articles, papers on original investigations, discussions of literary and scientific subjects, reports of correspondence of a professional nature, represent the chief proceedings of the club.

French Dialects. Weekly.

The dialects especially considered were the Lorraine, Burgundian, and Champagne groups. The method of work was, to a great extent, practical, and had in view a sufficient acquaintance with dialect forms to enable the student to discriminate Old-French texts belonging to these different idioms. To this end the leading characteristics of the old and the modern dialects were presented in a few lectures; then, through the use of early and later texts, the student was required to recognize and name the dialect features as they occur in the respective texts.

Lectures on Dante. Weekly.

The object of this course was to give the student a survey of the Dante
Romance Languages

science of to-day. In a few introductory lectures he was made acquainted with the leading philosophical and literary tendencies of Dante's time, the Inferno and Purgatorio doctrines before the author's epoch. The Inferno and Purgatorio were analyzed and presented in detail, both with reference to the previously existing ideas of punishment and recompense and to those peculiar to Dante.

Lais of Marie de France. Two hours fortnightly.
The work was concentrated on the Bisclavret, about one-third of which was exhaustively studied in reference to Old-French syntax, as compared with that of the Modern French. Under Dr. Keidel's supervision a study of werewolf traditions in Italy, Brittany, and Canada was made.

Two courses in mediaeval French literature were given in the month of December by Professor F. M. Warren. The one course, which consisted of twenty lectures, took for a subject the origins and development of lyric poetry in France. The forms and context of the various kinds of lyric were analyzed and defined, and their historical sequence was followed, from the appearance of the earliest specimens to the end of the mediaeval period. The work of individual authors was also considered.

The other course of nine lectures dealt with the imitations of well-known legends of antiquity by French poets of the twentieth century, particularly in the narrative poems of Thèbes, Énéas, Troïc, and Alexandre. The indebtedness of the mediaeval writers to their sources was discussed, their ideals and spirit were contrasted with the ideas of their Latin predecessors, and the influence of their work was traced in later romantic literature at home and abroad.

Associate Professor Marden conducted the following courses:

Spanish Seminary. Two hours weekly.
The work consisted in a study of the extant version of the Libre d'Apolonio as preserved in the Escorial manuscript. The Gesta Romanorum and the Historia Apollonii Regis Tyri (ed. Riese) were used constantly for elucidating or emending the many obscure portions of the Spanish poem. While special attention was devoted to problems of syntax and metre, an important feature of the work was the isolation and study of the various dialect forms, with the object of determining which of these forms belonged to the author himself and which were due to later copyists. Finally, the students made practical application of the results of their investigations by constructing a critical text for one hundred stanzas of the poem.

Old-Spanish Readings. Weekly.
The aim of this course was to give the students a reading knowledge of Spanish of the twelfth, thirteenth, and fourteenth centuries. In addition to selections in Keller's Altspanisches Lesebuch, the class read El Misterio de los Reyes Magos, Romance de Lope de Moros, Poema del Cid, and Poema de Fernan González.
Spanish Historical Grammar. Two hours weekly.
The students used Menéndez Pidal's Manual elemental de gramática histórica española, in connection with a course of lectures on Spanish phonology and morphology. Every fourth meeting was a quiz in preparation for which the members of the class studied passages of the Poema del Cid, looking up the etymologies of the individual words and applying the laws and principles deduced in the lectures.

Lectures on the Beginnings of Spanish Literature. Weekly.
The first two lectures were chiefly historical, describing Spain as a Roman province and showing the political, social, and intellectual condition of the people before the Germanic invasion. Then followed an analysis of the influences exerted by the Goths, Arabs, Jews, and French respectively. The literary evidences were then discussed under the headings Spanish Prose, Spanish Epic, Spanish Lyric, and each of these phases was studied from its earliest manifestations down to the middle of the thirteenth century. Special stress was placed upon the critical method for obtaining reliable data and sane conclusions in this field of investigation. An important chapter of the work was growth of narrative prose as shown by the legal documents, the anales, and the chronicles, in the order named, and the relation of the latter to early epic poetry.

Associate Professor Armstrong conducted the following courses:
French Phonology and Morphology. Three hours weekly.
Old-French sounds and inflexions were studied with reference to their historical connection with Folk-Latin and with modern French. A portion of the time was employed in the application of materials and methods embodied in the lectures to the text of La Vie de St. Alexis.

French Syntax. Two hours weekly.
The lectures in this course were devoted to mode and tense, and were a continuation of those of the preceding year, which also concerned the French verb considered from the historical and comparative standpoint.

A brief view of general principles and of existing phonetic schools was followed by a description of the organs of speech and a detailed examination of the mode of formation of French sounds. Practical exercises in pronunciation were included.

It was the aim of this course to furnish an introduction to the subject and to equip students for reading Old-French texts with some facility and accuracy. The texts read included Aucassin et Nicolette, the Lais of Marie de France, and portions of the Chanson de Roland.

Readings in Old-French Literature. Class A. Weekly.
The time was given to rather rapid reading, with attention to language,
style, and text-criticism. Selections from Bartsch's Romansen und Post- 
touwelen and the Encyclole were read.

Associate Professor Ogden conducted the following courses:

Romance Seminary: Literature. Two hours fortnightly.

The subject of the work chosen for special study was the formation of the
lyric capital in modern French literature, a process which can be traced
from the middle of the eighteenth century. The aim was to familiarize
the student with this most important department of French letters, and also to
encourage him to independence in point of view, and in the treatment of
his subject. It is the desire in this course to stimulate each student to use
and use to the best advantage what power he has in him, and avoid the
mechanical performance of a task. Special contributions were made by the
members of the Seminary, which were read and criticized before the entire
number.


An outline of the society at the period of the second Cénacle was followed
by a more detailed investigation of the various members of this literary
group. At a time of transition it proved most interesting, comprising
among other authors, Nodier, de Vigny, the Deschamps.

Lectures on the "Development of French Criticism in the nineteenth
century." Weekly.

The object of this course was to draw the students' attention to criticism
as a special and significant feature of French literature, and to trace the
development of the genre by characterizing in their mutual relation the
different schools of criticism which have arisen in France since the begin-
ing of the century. The rise and growth of the critical spirit was noted
in the seventeenth and eighteenth centuries; then the line of development
was carefully traced from Vilméain to Ste.-Beuve. The variations in the
hands of Taine and Nisard were illustrated, and the general sweep of the
science was followed down to the present day and the principles of Brune-
tière, Bourget, and Lemaitre. Each fresh factor in the progression was
studied in its objective relations, rather than in any personal application,
thus determining preferably the philosophic development of the literature.

Old Provençal Readings. Weekly.

The object in this course was to gain some familiarity with the literature
of the golden age of Provence, and to translate into lucid expression these
lyric efforts of the thirteenth century. Special attention was not paid to
the morphology and phonology of the period. As a mental training and
inducement to accurate thought and expression this course is most valuable.
The text-book employed was Appel's Provenzalisce Chrestomathie.

Dr. Keidel conducted the following courses:

Romance Methodology. Weekly, first half-year.
The general principles of cataloguing, proof-reading, original investigations, library research, and bibliography were explained and fully illustrated by numerous concrete cases of actual personal experience, while special stress was laid on the methods to be employed in the preparation of a dissertation and the writing of book-reviews.

Romance Paleography. Weekly.

By way of introduction a short account of the leading principles involved in the study of incunabula was given, with numerous illustrations from the works themselves. This was followed by a description of the various schools of writing developed on Romance territory during the Middle Ages, together with practical exercises in the deciphering of facsimiles of Old-French manuscripts. This course was intended to fit students for the investigation of incunabula and for copying medieval manuscripts.

Incunabula. Weekly, first half-year.

The principles of advanced research work among the great incunabulum collections of France and England were explained, special attention being paid to the literary aspects of the subject.

French Versification. Weekly, second half-year.

The fundamental principles of the versification of epic, didactic, and lyric poetry in the Old-French period were explained, with abundant illustration from some of the more important literary monuments. It was the special aim in this course to adapt it to the needs of beginners.

Dr. Shaw conducted the following courses:

Italian Seminary. Two hours weekly.

The subject of the Seminary work was the study of Boccaccio and the Decameron. Half the time was devoted to reading the text, with detailed commentary by the instructor, on the forms and constructions; there were read the Proemio, the Introduzione, and Novella II, 2. During the rest of the time reports were presented and criticised, by both instructor and students, on the birth and parentage of Boccaccio, his early life and love, his later life and public offices, his relation to Petrarch; on the date of composition of the Decameron, its title, and mss.


After introductory lectures on the origins of Italian poetry and the lyric previous to the dolce stil nuovo (special attention being paid to Guittone d'Arezzo, Chiario Davanzati, and Rustico di Filippo), the time was devoted to Guido Guinicelli, Guido Cavalcanti, and Cino da Pistoja. The remaining poets were only mentioned summarily. Bibliographical references were given in connection with each author.

Readings in Dante. Weekly.

The Inferno was read and interpreted; references in the text explained; linguistic peculiarities pointed out, and the state of opinion on disputed points outlined.
II. Undergraduate Courses:

French: Major Course. Four hours weekly.
The work this year has been divided as follows:

a. Literature: One hour a week. Associate Professor Armstrong. Lectures and recitations on the history of French literature, with Pellissier, Précis de l'Histoire de la Littérature française as basis for the work of the class.

b. Translation and Composition: Three hours a week. Mr. D. B. Easter. The following texts were read: Hugo: Quatrevingt-treize, Ray Blas; Musset: Fantasio, On ne badine pas avec l'amour; Gantier: Jettature; Balzac: Père Goriot; Dumas: L'Ami des femmes, La Dame aux camélias; Daudet: Tartarin de Tarascon; Zola: Paris; Rostand: Les Romanesques; Canfield: French Lyrics; Corneille: Polyèbe, Cinna; Racine: Athalie, Britannicus; Molière: Le Médecin malgré lui, Les Femmes savantes, Tartuffe, Le Malandrone; Voltaire: Candide, Le Siècle de Louis XIV; Balzac: L'Art poétique; Warren: French Prose of the XVIIth Century; La Fontaine: Fables. The work in composition was based upon Grandgent: French Composition.

Mr. Easter also conducted the following courses:

French: Minor A. Four hours weekly.

This is a second-year course in French literature and composition, designed to enable the student to translate smoothly from French into English and to write simple French prose. A view of the leading periods of the history of French literature is also given. The texts used in this class were as follows: Dumas: Les Trois Mousetaures; Augier: Le Fils de Giboyer; Daudet: Contes; Balzac: Scènes de la comédie humaine; Bowen: Modern French Lyrics; Hugo: Hernani; Corneille: Cid; Racine: Andromaque; Molière: L'Aigre, Les Précieuses ridicules; Pailleron: Le Monde où l'on s'ennuie. For private reading: Daudet: La Belle Ninvaise; Fortier: Histoire de France; Lamartine: Scènes de la révolution française. As the basis for the work of the class in literature: Kastner and Atkin's French Literature. The work in grammar and composition was based on Fraser and Squair's French Grammar, Part II.

French: Elective Course. Two hours weekly.

This is an advanced course for the rapid reading of French texts. Weekly practice in composition is also required. The class read: Dumas: Monte Cristo; Merimée: Colomba; Hugo: La Chute; Balzac: Le Curé de Tours; Augier: Le Gendre de M. Poirier; Dumas: La Question d'argent; Molière: Le Bourgeois Gentilhomme; Corneille: Horace; Rostand: Cyrano de Bergerac; Cameron: Tales of France. The composition was based on Storrs' Hints on French Syntax.

The gramophone method of the United States School of Languages is in use in all the undergraduate French courses as above outlined.
Associate Professor Ogden conducted the following course:
French: Minor B. Four hours weekly.

The aim of this course is to prepare the student for reading at sight, and is attended by candidates for the Doctor's degree who have this object in view, as well as by undergraduates. A few grammatical facts are mastered at the outset, but as soon as practicable the class is required to read easy prose. From this matter is drawn the needed illustration for grammatical points. The class was urged to read as much as possible, and translation at sight was also considered important. The ground covered was: Fraser and Squair, *French Grammar*; Verne, *Vingt Mille Lieues sous les Mers*; About, *La Mère de la Marquise*; Labiche et Martin, *Le Voyage de M. Perrichon*; de Musset, *Fantasio*, *On ne Badine pas avec l'Amour*; Hugo, *Les Misérables*; Selections.

Associate Professor Marden conducted the following courses:
Spanish: Minor Course. Four hours weekly.

After a few lessons in Hill and Ford's *Spanish Grammar*, the class began reading easy Spanish prose. The following works were then read in full: Alarcón, *El Capitán Veneno*; Pérez Galdós, *Doña Perfecta*; Echegaray, *El Gran Galeoto*; Cervantes, *El Cautivo*. Exercises in prose composition were discontinued after the first term, but drill in grammar was continued throughout the year. During the second term one hour a week was devoted to the history of Spanish Literature. The class prepared selected lessons in Butler-Clarke's *Spanish Literature*, and the instructor supplemented these lessons by informal talks on the literary masterpieces of the classic and modern periods.

Spanish: Elective Course. Two hours weekly.

Edgren's *Spanish Grammar* was used for the rudiments of grammar and for work in prose composition. The class then read selections from Matzke's *Spanish Readings*; Miguel Ramos Carrión y Vital Aza, *Zaragüeta*; Alarcón, *El Capitán Veneno*.

Dr. Shaw conducted the following courses:
Italian: Minor Course. Four hours weekly.

Translation of texts, weekly exercises in Italian composition, lessons in grammar with the translation, brief lectures on Italian literature weekly. The following text-books were used: Garnett, *History of Italian Literature*; Grandgent, *Italian Grammar and Composition*; Goldoni, *La Locandiera*; DeMarchi, *Demetrio Pianelli*.

Italian: Elective Course. Twice weekly.

Study of the grammar with translation. The following text-books were used: Grandgent, *Italian Grammar*; Serao, *Il Paeo di Cucagna*.

A. M. ELLIOTT,
Professor of Romance Languages.
History

The publication of the Studies in Historical and Political Science was continued during the year and the twenty-second series was brought to completion. The titles of the papers included in this volume are as follows: A Trial Bibliography of American Trade-Union Publications; prepared by the Economic Seminary and edited by Dr. G. E. Barnett, White Servitude in Maryland, 1634-1820, by E. I. McCormac; Switzerland at the Beginning of the Sixteenth Century, by J. M. Vincent; the Political History of Reconstruction in Virginia, by H. J. Eckenrode; Lay Sermons, by A. G. Warner (published as Notes Supplementary to the Studies); the Foreign Commerce of Japan since the Restoration, by Y. Hattori; Descriptions of Maryland: a bibliographical contribution, compiled chiefly from works of travel, by B. C. Steiner.

The twenty-third series is in progress and the following numbers have been sent to press: Reconstruction in South Carolina, by J. P. Hollis; State Government in Maryland, 1777-1781, by B. W. Bond, Jr.; Colonial Administration under Lord Clarendon, 1660-1667, by P. L. Kaye; Justice in Colonial Virginia, by O. P. Chitwood; Napoleonic Exiles in America, a Study in American Diplomatic History, 1815-1819, by J. S. Reeves.

The Historical and Political Science Association entered upon its twenty-eighth year. Meetings have been held fortnightly in the Historical Library for the discussion of original papers and current publications in history, political science, and political economy. The proceedings are published in the University Circulars, for November, 1904, January and May, 1905. During the year the following principal papers were presented: The Colonial Administration of the Earl of Clarendon, by P. L. Kaye; State Government in Maryland, 1777-1781, by B. W. Bond; Functions of the Knights of Labor and the Federation of Labor, by W. Kirk; the Transition from Slavery to Freedom in the Bahama Islands, by J. M. Wright; Trade Agreements in the Iron Moulders Union, by F. W. Hilbert; the Superior Courts of Colonial Virginia, by O. P. Chitwood; the Apprentice System in the Building Trades, by J. M. Motley; Tory Disturbances in Maryland, 1776-1781, by B. W. Bond, Jr.; the Finances of the Iron Moulders Union, by A. M. Sakolski; Secession in North Carolina, by H. M. Wagstaff; Structure of the Cigar Makers Union, by T. W. Glocker; Freedom of the Press in France, 1815-1848, by B. W. Bond, Jr.; an Historical Puzzle respecting the Birth of Talleyrand, by D. C. Gilman; the War Department under John Adams as seen in the McHenry Papers, by B. C. Steiner.

Dr. James Schouler gave his usual course of public lectures on American history. The general subject was the Life of the People during the Ameri-
can Revolution, this being the fourth and concluding series upon this theme. The special topics considered this year were religious influences; industrial pursuits; clubs and politics; with a special lecture upon the newly-opened manuscript collections of Calhoun, Jackson, and VanBuren, now in the Library of Congress.

Professor James A. James, of Northwestern University, delivered the Albert Shaw Lectures on Diplomatic History. The subject of the course was the Diplomatic Relations of the United States during the Administration of John Adams. The ten lectures were given as class work to graduate students.

Professor John Martin Vincent conducted the following courses:

1. *The Period of the Reformation*, two hours weekly, first half-year. This included a treatment of the causes and progress of the religious revolution in Germany, Switzerland, and England.

2. *Puritan Revolution*, two hours weekly, second half-year. This was a study of the social and political changes in England chiefly in the seventeenth century.

3. *Historical Seminary*. The subjects of investigation were selected problems in the municipal history of England. During the first half-year each student was given a city of England to be studied for social conditions during the fourteenth and fifteenth centuries. Each student was obliged to present a cross-sectional view of his particular city derived from original sources of information. In this connection the Peabody Library was of very great service. Reports upon these topics were given as follows: Canterbury, by J. C. Hildt; Gloucester, by D. S. Freeman; Coventry, by K. Morimoto; Exeter, by C. F. Ranft; Bristol, by J. R. Tucker; Newcastle, by H. M. Wagstaff; Shrewsbury, by J. M. Wright; Oxford, by S. L. Ware; York, by O. P. Chitwood; London, by B. W. Bond, Jr.; Winchester, by F. W. Hilbert.

During the second half-year certain cities were studied during the period of the suppression of the monasteries. The object of the report was to present a view of social and educational conditions at the time, and to note the exact process of the suppression and the effect upon the community. The following topics were reported upon: Canterbury, by J. C. Hildt; Gloucester, by D. S. Freeman; Exeter, by C. F. Ranft; Winchester, by F. W. Hilbert; Coventry, by K. Morimoto; Furness Abbey, by J. R. Tucker; Glastonbury, by H. M. Wagstaff.

As a special topic of inquiry, B. W. Bond, Jr. reported on French Revolutionary Journalism, showing the development of the freedom of the press in the nineteenth century.

4. *Medieval and Modern History*, two hours weekly during the year. For undergraduates of the second year.
Professor Friedrich Keutgen, of the University of Jena, was present as a resident lecturer from October to May, and conducted the following courses:

1. *History of the Germanic Nations* from the earliest times to the age of Charles the Great, dwelling chiefly on economic and constitutional aspects. Two hours weekly, first half-year.

2. *History of Germany* from the Ottonian age to the end of the twelfth century, especially the relations between Empire and Papacy. Two hours weekly, second half-year.

3. *Practical Exercises in Palæography and Diplomatics*, the development of Latin writing from the first to the fifteenth century, and the usages of the papal and the imperial chanceries. Two hours weekly, throughout the year.

4. *Seminary*. Reading of charters relating to early German municipal history and discussion of the origin of civil rights and of artisan organizations. Two hours weekly, throughout the year.

Professor Keutgen also gave three public lectures. In the first, given in February, 1905, he repeated an address made before the American Historical Association at Chicago, under the title the Necessity in America of the Study of the Early History of Modern European Nations. He gave in April two lectures on the Origin of Medieval Guilds.

Dr. J. C. Ballagh, Associate Professor of American History, has given particular attention to the class work and dissertations of advanced students in American history and has conducted the following courses:

For graduates:

*American History*. The lectures each year cover distinct periods and are so arranged that the courses given in each successive year continue or supplement those of the preceding year. During the past year they were:

1. *The Discovery and Colonization of America to 1763*. Two hours weekly, first half-year.

2. *Institutional History of the American Colonies*. Two hours weekly, first half-year.

Together these two courses considered important phases of colonial history to 1763. A critical study was made of the sources and European conditions of early American discovery. The development of American colonial policies and the administrative institutions established in their American colonies by Spain, France, England, and Holland were treated comparatively. Particular attention was given to the constitutional history of the English colonies; subjecting the colonial charters, instructions, and precedents given by colonizing agencies, as well as American local conditions, to careful analysis to trace their influence on institutional origins and growth. The colonial records and available sources were emphasized.

3. *History of Secession in the United States*. One hour weekly throughout the year.
This course on the historical development and assertion of the principle of secession in American federal history was supplementary to that upon Slavery in the preceding year. It involved a minute study of the political history of the United States in the period from 1850 to 1861, and attempted to determine the influence of general and local causes in the secession of the Southern States.

4. *American History Seminar*. One hour in alternate weeks, throughout the year.

By cooperative research upon topics in limited fields where the manuscript and printed sources are available, it was designed to train the student in correct methods of historical inquiry and in their practical application in the production of original contributions worthy of publication. Subjects for investigation were selected in American Diplomatic History, 1776–1801, and in other limited periods connected with the lecture courses. The methods and results of the student's inquiry were subjected to frequent discussion and criticism, privately and in the class. Through the courtesy of chiefs of government departments in Washington important manuscript sources there were made accessible. Among the papers embodying substantial results, some of which are published in abstract in the *University Circulars*, are: The Dana Mission to Russia, and Relations between the United States and Russia to 1817, by J. C. Hildt; the Early History of the Department of State, by B. F. Wilson; the Monroe Mission to France, by H. M. Wagstaff; the Negotiation of the Jay Treaty, by O. P. Chitwood; Military Aid rendered by Maryland in the Revolution, by B. W. Bond, Jr.; History of Secession in North Carolina, by H. M. Wagstaff; Parties in the Virginia Secession Convention, by D. S. Freeman; History of the Colonial Post Office, by C. F. Ranft; the Convention of 1800 with France, by J. R. Tucker. Dissertations presented in the subject of American history were Justice in Colonial Virginia, by O. P. Chitwood; Independent State Government in Maryland, by B. W. Bond, Jr.; Political History of Virginia during the Reconstruction, by H. J. Eckenrode.

5. *Examinations in History*. One hour in alternate weeks, throughout the year.

The course consisted of informal lectures, oral and written examinations, and was designed for candidates for the degree of Doctor of Philosophy and other advanced students in history. The subjects reviewed during the year were the history of Greece and Rome and a brief period of American history.

For undergraduates:

1. *Civilization and Politics in the Far East*, two hours weekly throughout the year. The lectures considered important features of the civilizations and foreign relations of China, Japan, and India. The history of religious missions was carefully presented, and oral and written reports upon assignments in special authorities were required.
Political Science

2. *Classical History*, four hours weekly throughout the year. The political and constitutional history of Greece and Rome were studied through the translated texts of Herodotus, Thucydides, Plutarch, Aristotle, Suetonius, and Tacitus, with the aid of selected modern authorities. Written reports were required at convenient periods.

Dr. Bernard C. Steiner, Associate in History, has acted as an adviser of graduate students in their researches in American history, and has conducted the following courses for undergraduates:

1. *American Constitutional History*, two hours weekly through the year. The course is provided as an advanced major subject in connection with the class in English Constitutional History, and is conducted by means of textbooks, lectures, and written reports.

2. *English Constitutional History*, two hours weekly through the year. The period covered extended from the beginnings of English history through the nineteenth century.

3. *Historical Politics*, two hours weekly through the year. This course is intended for students not following the historical group and forms part of the course called "History-Economics." The subjects considered explain the growth of political institutions from early beginnings to modern times.

J. M. VINCENT,
Professor of European History.

Political Science

The work in Political Science has been conducted by Associate Professor Willoughby, and has had for its primary aim the preparation of advanced students for professional and original work in the fields of Constitutional Law, International Law and Diplomacy, and Political Theory. In addition to the Historical and Political Science Association, at which the completed work of the students of the departments of History, Economics, and Political Science has been presented and criticized, a weekly Political Science Seminar has been held at which papers prepared by the students, dealing with current and unsettled questions of international law and foreign politics have been read and discussed. Among the papers thus presented were the following: "The International Status of China," by J. P. Bledsoe; "Parliamentary Government in Sweden," by G. A. Bagge; "The Evolution of the Monroe Doctrine," by S. Blum; "Questions of International Law involved in the British-Boer War," by R. G. Campbell; "Insurgency," by L. G. Corkran; "The International Law and Diplomacy of the Spanish-American War," by H. E. Flack; "Questions of International Law involved in the Chinese-Japanese War," by D. S. Freeman; "The Development of French Power in the Far East," by J. C. Hildt; "Russian-American Diplomacy,

The following courses of lectures were given:
1. Political Theories and Literature in France, Germany, and Italy, since 1750. Two hours weekly through the year.

This is one of a series of courses extending over three or more years, in which the attempt is made to cover the history of political theories since the earliest times. These theories are sought for not only as explicitly stated in formal political treatises, but as implicit in the political practice and general intellectual characteristics of the periods covered.

2. The Legal Aspects of Economic and Industrial Problems. Two hours weekly through the year.

In this course the chief legal points involved in the state regulation of public and private employments were discussed. Among the particular topics treated were: eminent domain, the police power, interstate commerce, factory legislation, capitalistic combinations, labor unions, employers’ associations, strikes, boycotts, industrial arbitration.

Mr. John Philip Hill, a member of the Bar of Baltimore City, gave a course of six lectures dealing with the Organization and Administration of the Executive Departments of the United States Government.

W. W. Willoughby,
Associate Professor of Political Science.

Political Economy

The courses in Political Economy were directed by Professor Hollander, who met students daily, in seminary organization, for formal instruction and for co-operative research. The activity of the Economic Seminary in the investigation of the history, structure, and activities of labor organizations in the United States was supplemented by courses of lectures on certain phases of the history and theory of economic science, and on the nature and influence of particular economic institutions. Dr. George E. Barnett, Associate in Political Economy, assisted in the conduct of the work.

Professor Hollander conducted the following courses:
1. Economic Seminary, weekly, alternating a two-hour evening with a one-hour morning session. During the current academic year, the Economic Seminary has continued its investigation into the history, activities, and influence of labor organizations in the United States. Its membership has been more narrowly limited to the advanced students preparing for a scientific
career in economic study, and its primary design has been the development of sound method in economic research. The material resources necessary for the inquiry have been supplied by the continued generosity of the donor whose original gift made its inception possible.

In March, 1905, Professor Hollander was directed by President Roosevelt to proceed to Santo Domingo as Confidential Agent of the United States, to investigate the financial condition of the island. With the approval of the university authorities, he was engaged in this mission during April and early May, returning to Baltimore in time to conduct the final student examinations. During his absence, the department was in charge of Dr. Barnett. In August, 1905, Professor Hollander was commissioned by President Roosevelt as Special Commissioner Plenipotentiary and paid a second visit to Santo Domingo and other of the West Indies, in performance of his duties.


Appreciable progress has also been made by individual members of the Seminary in the study of specific aspects of the several questions assigned for investigation. During the summer field work was carried on in various

Two members of the Seminary received the doctor of philosophy degree in June, 1905. Their dissertations will be published in the next series of the *Johns Hopkins University Studies in Historical and Political Science*, as follows: "The Finances of American Trade Unions," by Aaron M. Sakolski; "Labor Federations in the United States," by William Kirk.

From time to time the Seminary had the benefit of addresses from persons not formally connected therewith upon topics more or less closely related to its investigations, as follows: "Trade Unionism in Austria," by Professor Eugen von Philippovich, of Vienna; "Statistical Methods," by Hon. Charles F. Nell, United States Commissioner of Labor; "The Attitude of the Supreme Court towards Legal Regulation of Labor," by Mr. Theodore Marburg. Certain other economic studies which may be regarded as the outgrowth of Seminary activity were presented before the student body in one form or another and published as follows: "The Economic Association at Chicago," by Professor Hollander (published in *The Nation*, January 19, 1905); "The End of the Maryland Workman's Compensation Act," by Dr. George E. Barnett (published in *Quarterly Journal of Economics*, February, 1905); review of Nicholas P. Gilman's "Methods of Industrial Peace," by F. W. Hilbert (published in *The Nation*, March 2, 1905); review of Adams and Sumner's "Labor Problems," by Dr. George E. Barnett (published in the *Baltimore News*, February 15, 1905); "Baltimore Municipal Institutions," by S. Blum (published in *Annals of Academy of Political and Social Science*, March and May, 1905); "A Sketch of David Ricardo," by Professor Hollander (published in the *Jewish Encyclopedia*). A fuller account of the proceedings of the Seminary, with
abstracts of more important papers there presented, was published in *Johns Hopkins University Circular*, June, 1905.

2. *Economic Theories since Adam Smith*, two hours weekly through the year. A critical survey was made of the development of fundamental concepts of economic science from Adam Smith to current thought. The method of treatment was topical or cross-sectional, and the history of the theories of Wages, Interest, Profits, Rent, Value, Production, Distribution, and Consumption were successively reviewed. In connection with the course, members of the class were assigned representative texts for reading and study.

3. *American Public Finance*, two hours weekly during the year. The financial experience of the United States was taken as the basis for critical and comparative study. Attention was paid to federal, state, and local finance, and exercise was afforded in the use of original sources of financial information.

Dr. George E. Barnett, Associate in Political Economy, gave a course of lectures on Statistical Methods, one hour weekly through the year. During the first half-year attention was directed to the history and theory of statistical investigation. In the second half-year the chief problems of vital statistics were discussed.

Mr. John M. Glenn, A. M., President of the Board of Supervisors of City Charities, Baltimore, gave a course of ten lectures on Problems of Relief. The lectures dealt with causes and effects of poverty and crime, methods of prevention and treatment, and the responsibilities of the community in regard to them.

Mr. Clayton C. Hall, LL. B., A. M., of Baltimore, gave a course of lectures on Insurance in its economic and practical aspects. He explained the theory upon which systems of insurance are based, the conditions necessary for stability, and the application of mathematical and scientific principles in the practical operations.

In co-operation with the department of history and political science, opportunity was afforded in the Historical and Political Science Association for the presentation and discussion of original papers in economic science by instructors, advanced students, and invited speakers, and for the review of current publications of importance in these several fields.

A reading class was organized and successfully conducted by the more advanced students of the department for the co-operative study of economic texts and for the critical discussion of current economic literature.

The reception accorded the first series of Economic Tracts was so favorable that subscriptions were invited to a similar reprint of four important economic tracts of the seventeenth century, to be issued by the *Johns Hopkins Press* under the direction of Professor Hollander, in limited edition and for subscription at a moderate price. The series was announced

Further progress was made during the past year in the collection of trade-union documents. The Seminary is now in receipt of all important trade-union journals, proceedings of conventions, constitutions, and similar publications. Through purchase and gift the collection was augmented by the addition of similar printed material of earlier years, and notably by the addition of complete files of the publications of certain older unions, hitherto unrepresented. The additions have made accessible to students of trade unionism in the United States a larger amount of documentary material than is to be found in any other place in the country.

The Seminary collection of English economic texts has been strengthened by means of a further gift of money from Mr. A. G. Hutzler. Mr. William H. Buckler, Mr. Jacob Epstein, and Mr. George Cator have aided the work of the department by generous gifts.

Professor Hollander and Dr. Barnett conducted the following undergraduate courses:

1. Major Political Economy, four hours weekly through the year. The course was divided into two-hour sections extending through the year. In the first section, attention was given to recent economic theories, with Marshall's Principles of Economics as the text-book. In the second section, recent developments in economic organization were studied, with Hobson's Evolution of Modern Capitalism and Henry C. Adams's Finance as the text-books.

2. Minor Political Economy, four hours weekly through the year. This course was divided into two half-year sections. In the first half-year, the industrial development of England and the United States was studied. In the second half-year, systematic instruction was given in the elementary principles of economic science.

3. Elements of Economics, two hours weekly through the year. This course formed a part of "History-Economics," attendance upon which is required of all students not enrolled in Group VI, or who have not taken the minor course in Political Economy. Attention was given during the first half-year to the elements of political economy; during the second half-year, to the practical economic institutions.

Jacob H. Hollander,
Professor of Political Economy.
Philosophy and Psychology

During the year this department has had considerable development. It was inaugurated last year by the appointment of the present Professor of Philosophy and Psychology. A second appointment was that of Professor G. M. Stratton, of the University of California, to a chair of Experimental Psychology. Professor Stratton entered upon his duties at the beginning of the academic year 1904-05. In the same branch of the department, Dr. J. W. Baird, of Cornell University, was appointed Assistant.

Additional special lecturers, each giving one or more courses of lectures, as part of the regular work of the department, were Dr. C. Ladd Franklin, who has lectured on Symbolic Logic (first half-year) and Vision (second half-year); Dr. C. B. Farrar, who has lectured on Brain Structure and Function (second half-year); and Dr. I. Woodbridge Riley, who has lectured on American Philosophy in the Eighteenth Century.

Besides these courses of lectures on special topics, Professor Griffin has given courses in History of Philosophy and Ethics, Professor Stratton has offered work as described below, Dr. Baird has given courses in Reading of Philosophical Texts in German, and in the Interpretation of Experimental Results, and Professor Baldwin has lectured on General Psychology and Social Philosophy, besides conducting the Seminary in Genetic Logic and the Graduate Conference.

The department has been favored also with single lectures by Professor James Ward, LL. D., of Cambridge, England, and Principal Lloyd Morgan, of University College, Bristol. On the anniversary of the death of John Locke, a Locke Celebration was held in the University, arranged by the department, at which speakers from abroad and at home took part.

The department has been further reinforced by the appointment of Dr. I. Woodbridge Riley to one of the Johnston Research Scholarships.

As to the personal work of the members of the staff, the following items may be mentioned. Professor Baldwin has sent to press the first volume of his new work on Genetic Logic, has passed the proofs of the third and concluding volume of his Dictionary of Philosophy, and has edited Vol. XII of the Psychological Review and Vol. 1 of the Psychological Bulletin. He has also published papers, and made progress on other lines of work. Dr. Stratton's work is mentioned in his note below, and that of Dr. Baird as well. Mrs. Franklin has made progress with her proposed books on Logic and Sensation, and Dr. Riley's researches in early American Philosophy are proving fruitful as they develop.

There have been fifteen graduate students, four of them completing the second year of their work for the doctor's degree. In the last quarter of the year Professor J. B. Watson, of the University of Chicago, did special
work with us, and favored the department with reports of his investigations in Comparative Psychology.

As the establishment of the psychological laboratory is the event of importance in the year now closing, the following statement furnished by Professor Stratton will be found of interest:

The psychological laboratory has been established during the present year in a group of rooms in the biological building. Arrangements have been made for research and instruction, including provision for an experimental dark-room and a work-shop with bench and tools. The rooms have been wired, and provided with a central switch-board, battery, and supply wires from the university power-house. An equipment of materials and apparatus has been procured from the best makers in America and Europe, so that the laboratory is prepared now for its regular work.

A Training Course in the laboratory has been conducted by Professor Stratton and Dr. Baird, four hours a week throughout the year. The course has consisted of practical training in the technique of experimentation, with written reports of their work by the students, and has also included lectures on the general character and methods of experimental psychology, while regular meetings outside the laboratory have been held for the discussion of readings in the history of the subject.

Preparations for research have been made and a beginning of such work may be reported. Professor Stratton has begun a study of the apparent undulation of straight lines, and is continuing an investigation, already begun at the University of California, upon the relation between eye-movements and the estimation and enjoyment of special forms. Aside from the laboratory work, he has continued some studies in the Psychology of Religion and in the history of the Psychology of Perception and Illusion in preparation for a volume in Professor Baldwin's Library of Historical Psychology.

Dr. Baird has completed a report to the Carnegie Institution of his experiments at Cornell University upon the color-sensitivity of the peripheral retina, and this report has now been published by the Institution. In the laboratory he has undertaken experiments upon certain problems in binocular vision.

**UNDERGRADUATE COURSES**

Each candidate for the degree of Bachelor of Arts is required to attend, during the last year of residence, courses in philosophy, occupying five hours a week. The several subjects are distributed through the year as follows: Deductive and Inductive Logic, October 1 till the Christmas recess; Psychology, January 1 to April 15; Ethics, April 15 to June 1; Outlines of History of Philosophy, weekly.
The courses in Logic, Ethics, and History of Philosophy have been conducted by Professor Griffin; that in Psychology, by Professor Griffin and Professor Stratton.

Text-books have been used in each subject, as affording definite material of acquisition, but informal lectures, discussions in the class, and passages from various authors assigned for reading have been largely relied upon. Each member of the class has been required to prepare two essays.

J. Mark Baldwin,
Professor of Philosophy and Psychology.

Edward H. Griffin,
Professor of the History of Philosophy.
### TABULAR STATEMENT OF COURSES OF INSTRUCTION, 1904-05

<table>
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<th>INSTRUCTORS</th>
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**ENGLISH**

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<td>32</td>
</tr>
<tr>
<td>Baldwin.</td>
<td>Ethical Theories from Hobbes to Green.</td>
<td>1</td>
<td>33</td>
</tr>
<tr>
<td>Baldwin.</td>
<td>Continental Philosophy (Descartes to Kant).</td>
<td>1</td>
<td>34</td>
</tr>
<tr>
<td>Baldwin.</td>
<td>Deductive and Inductive Logic. (Until Dec. 10.)</td>
<td>5</td>
<td>35</td>
</tr>
<tr>
<td>Baldwin.</td>
<td>Ethics. (After April 1.)</td>
<td>5</td>
<td>36</td>
</tr>
<tr>
<td>Baldwin.</td>
<td>Psychology. (January to April.)</td>
<td>5</td>
<td>37</td>
</tr>
<tr>
<td>Griswold.</td>
<td>Psychology. (Training Course.)</td>
<td>5</td>
<td>38</td>
</tr>
<tr>
<td>Griswold.</td>
<td>Symbolic Logic.</td>
<td>5</td>
<td>39</td>
</tr>
<tr>
<td>Griswold.</td>
<td>Vision.</td>
<td>5</td>
<td>40</td>
</tr>
<tr>
<td>Griswold.</td>
<td>German Psychological Texts.</td>
<td>5</td>
<td>41</td>
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<tr>
<td>Griswold.</td>
<td>Recent Psychological Research.</td>
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<td>42</td>
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<td>Griswold.</td>
<td>Histology of the Cerebral Cortex.</td>
<td>5</td>
<td>43</td>
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<tr>
<td>Griswold.</td>
<td>American Philosophy in XVIII Century.</td>
<td>5</td>
<td>44</td>
</tr>
<tr>
<td>Whiteman.</td>
<td>Freehand, Constructive, and Perspective Drawing.</td>
<td>6</td>
<td>45</td>
</tr>
<tr>
<td>French.</td>
<td>Debate. (Alternate weeks.)</td>
<td>1</td>
<td>46</td>
</tr>
<tr>
<td>French.</td>
<td>Parliamentary Practice. (Alternate weeks.)</td>
<td>1</td>
<td>47</td>
</tr>
<tr>
<td>French.</td>
<td>Elements of Public Speaking.</td>
<td>4</td>
<td>48</td>
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<tr>
<td>French.</td>
<td>Elements of Parliamentary Law.</td>
<td>2</td>
<td>49</td>
</tr>
</tbody>
</table>

**POLITICAL SCIENCE**

**POLITICAL ECONOMY**

**PHILOSOPHY AND PSYCHOLOGY**

**DRAWING**

**FORENSICS AND ELOCUTION**
The academic staff included during the year 1904-05 one hundred and sixty-eight teachers, ninety-one in the philosophical department and seventy-seven whose work lay wholly in medicine. The number of students enrolled was seven hundred and forty-six, of whom three hundred and twelve were residents of Maryland, four hundred and sixteen came here from forty-five other States of the Union, and eighteen from foreign countries. Among the students were five hundred and sixty-three already graduated, one hundred and ninety-five of whom were enrolled in the department of Philosophy and the Arts, three hundred and sixty-eight in the department of Medicine. They came from one hundred and seventy-two colleges and universities. There were one hundred and sixty matriculates (or candidates for the degree of Bachelor of Arts) and twenty-three were admitted as special students, to pursue courses of study for which they seemed fitted, without reference to graduation. The enrolment for the year may be summarized as follows:

**Faculty**

President and Professors .................................................. 94
Clinical Professors .............................................................. 7
Associate Professors ............................................................ 31
Associates ........................................................................... 25
Instructors and Assistants .................................................... 49
Lecturers ........................................................................... 22

**Students**

Graduate Students:

Fellows by Courtesy .............................................................. 16
Fellows ............................................................................ 22
Other Graduate Students in Philosophy .................................. 167
Candidates for the degree of M. D. ........................................ 201
Physicians attending Special Courses ..................................... 79

Undergraduates:

Candidates for the degree of A. B. ........................................ 100
Not candidates for a degree ................................................... 53

Counted twice ................................................................. 183

Total ............................................................................... 748

During the past twenty-nine years, five thousand two hundred and five individuals have been enrolled as students, of whom nineteen hundred and ninety are registered as from Maryland (including sixteen hundred from
Report of the Registrar

Baltimore), and three thousand two hundred and fifteen from seventy-seven other States and countries. Three thousand four hundred and forty-six persons entered as graduate students, and seventeen hundred and fifty-nine entered as undergraduates. Of the undergraduates, four hundred and seventy-one have continued as graduate students, many of them proceeding to the degree of Doctor of Philosophy. It thus appears that three thousand nine hundred and seventeen persons have followed graduate studies here. The following table shows the enrolment of students in each year:

<table>
<thead>
<tr>
<th>Total Enrolled</th>
<th>Graduates (incl. Fellows)</th>
<th>Matriculates</th>
<th>Non-Matriculates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1876-77</td>
<td>89</td>
<td>54</td>
<td>12</td>
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<tr>
<td>1877-78</td>
<td>104</td>
<td>68</td>
<td>24</td>
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<tr>
<td>1878-79</td>
<td>123</td>
<td>79</td>
<td>25</td>
</tr>
<tr>
<td>1879-80</td>
<td>159</td>
<td>102</td>
<td>37</td>
</tr>
<tr>
<td>1880-81</td>
<td>175</td>
<td>99</td>
<td>45</td>
</tr>
<tr>
<td>1881-82</td>
<td>204</td>
<td>125</td>
<td>49</td>
</tr>
<tr>
<td>1882-83</td>
<td>249</td>
<td>159</td>
<td>53</td>
</tr>
<tr>
<td>1883-84</td>
<td>290</td>
<td>174</td>
<td>69</td>
</tr>
<tr>
<td>1884-85</td>
<td>314</td>
<td>184</td>
<td>96</td>
</tr>
<tr>
<td>1885-86</td>
<td>378</td>
<td>228</td>
<td>108</td>
</tr>
<tr>
<td>1886-87</td>
<td>420</td>
<td>231</td>
<td>127</td>
</tr>
<tr>
<td></td>
<td>231 Med., 11 Phil., 229</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1887-88</td>
<td>394</td>
<td>216</td>
<td>129</td>
</tr>
<tr>
<td></td>
<td>216 Med., 14 Phil., 202</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1888-89</td>
<td>404</td>
<td>229</td>
<td>130</td>
</tr>
<tr>
<td></td>
<td>229 Med., 20 Phil., 233</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1889-90</td>
<td>468</td>
<td>276</td>
<td>141</td>
</tr>
<tr>
<td></td>
<td>276 Med., 43 Phil., 298</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1890-91</td>
<td>547</td>
<td>337</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>337 Med., 39 Phil., 297</td>
<td></td>
<td></td>
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<tr>
<td>1891-92</td>
<td>551</td>
<td>447</td>
<td>133</td>
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<tr>
<td></td>
<td>447 Med., 60 Phil., 261</td>
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<tr>
<td>1892-93</td>
<td>522</td>
<td>344</td>
<td>123</td>
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<td>344 Med., 83 Phil., 254</td>
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<td>1893-94</td>
<td>589</td>
<td>412</td>
<td>126</td>
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<td></td>
<td>412 Med., 125 Phil., 229</td>
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<tr>
<td>1894-95</td>
<td>596</td>
<td>406</td>
<td>149</td>
</tr>
<tr>
<td></td>
<td>406 Med., 153 Phil., 210</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1895-96</td>
<td>520</td>
<td>344</td>
<td>144</td>
</tr>
<tr>
<td></td>
<td>344 Med., 194 Phil., 215</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1896-97</td>
<td>641</td>
<td>456</td>
<td>152</td>
</tr>
<tr>
<td></td>
<td>456 Med., 241 Phil., 210</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1897-98</td>
<td>649</td>
<td>462</td>
<td>163</td>
</tr>
<tr>
<td></td>
<td>462 Med., 232 Phil., 185</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1898-99</td>
<td>645</td>
<td>469</td>
<td>159</td>
</tr>
<tr>
<td></td>
<td>469 Med., 284 Phil., 168</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1899-1900</td>
<td>651</td>
<td>473</td>
<td>158</td>
</tr>
<tr>
<td></td>
<td>473 Med., 368 Phil., 202</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1900-01</td>
<td>651</td>
<td>473</td>
<td>158</td>
</tr>
<tr>
<td></td>
<td>473 Med., 308 Phil., 217</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1901-02</td>
<td>694</td>
<td>530</td>
<td>158</td>
</tr>
<tr>
<td></td>
<td>530 Med., 358 Phil., 187</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1902-03</td>
<td>695</td>
<td>552</td>
<td>147</td>
</tr>
<tr>
<td></td>
<td>552 Med., 345 Phil., 202</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1903-04</td>
<td>715</td>
<td>556</td>
<td>141</td>
</tr>
<tr>
<td></td>
<td>556 Med., 354 Phil., 185</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1904-05</td>
<td>746</td>
<td>563</td>
<td>160</td>
</tr>
</tbody>
</table>
The next table indicates the geographical distribution of the students:

<table>
<thead>
<tr>
<th>From Maryland</th>
<th>From Other States and Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>1876-77</td>
<td>29</td>
</tr>
<tr>
<td>1877-78</td>
<td>71</td>
</tr>
<tr>
<td>1878-79</td>
<td>76</td>
</tr>
<tr>
<td>1879-80</td>
<td>92</td>
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<tr>
<td>1880-81</td>
<td>95</td>
</tr>
<tr>
<td>1881-82</td>
<td>97</td>
</tr>
<tr>
<td>1882-83</td>
<td>100</td>
</tr>
<tr>
<td>1883-84</td>
<td>121</td>
</tr>
<tr>
<td>1884-85</td>
<td>130</td>
</tr>
<tr>
<td>1885-86</td>
<td>135</td>
</tr>
<tr>
<td>1886-87</td>
<td>162</td>
</tr>
<tr>
<td>1887-88</td>
<td>199</td>
</tr>
<tr>
<td>1888-89</td>
<td>253</td>
</tr>
<tr>
<td>1889-90</td>
<td>215</td>
</tr>
</tbody>
</table>

The growth of the medical department is shown by the following table of enrolment since its opening:

<table>
<thead>
<tr>
<th>Candidates for the Degree of M. D.</th>
<th>Doctors of Medicine</th>
<th>Total Enrolment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1893-94</td>
<td>18</td>
<td>63</td>
</tr>
<tr>
<td>1894-95</td>
<td>51</td>
<td>77</td>
</tr>
<tr>
<td>1895-96</td>
<td>84</td>
<td>69</td>
</tr>
<tr>
<td>1896-97</td>
<td>123</td>
<td>11</td>
</tr>
<tr>
<td>1897-98</td>
<td>167</td>
<td>74</td>
</tr>
<tr>
<td>1898-99</td>
<td>197</td>
<td>55</td>
</tr>
<tr>
<td>1899-1900</td>
<td>211</td>
<td>73</td>
</tr>
<tr>
<td>1900-01</td>
<td>200</td>
<td>96</td>
</tr>
<tr>
<td>1901-02</td>
<td>229</td>
<td>129</td>
</tr>
<tr>
<td>1902-03</td>
<td>258</td>
<td>69</td>
</tr>
<tr>
<td>1903-04</td>
<td>278</td>
<td>78</td>
</tr>
<tr>
<td>1904-05</td>
<td>291</td>
<td>77</td>
</tr>
</tbody>
</table>

The attendance upon the courses given in the principal subjects has been as follows during the last five years:

<table>
<thead>
<tr>
<th>Subject</th>
<th>1900-01</th>
<th>1901-02</th>
<th>1902-03</th>
<th>1903-04</th>
<th>1904-05</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics and Astronomy</td>
<td>49</td>
<td>52</td>
<td>66</td>
<td>62</td>
<td>88</td>
</tr>
<tr>
<td>Physics</td>
<td>84</td>
<td>76</td>
<td>68</td>
<td>89</td>
<td>126</td>
</tr>
<tr>
<td>Chemistry</td>
<td>121</td>
<td>92</td>
<td>106</td>
<td>120</td>
<td>84</td>
</tr>
<tr>
<td>Geology and Mineralogy</td>
<td>27</td>
<td>26</td>
<td>20</td>
<td>37</td>
<td>60</td>
</tr>
<tr>
<td>Biology (Zoology, Botany, Physiology)</td>
<td>144</td>
<td>168</td>
<td>211</td>
<td>34</td>
<td>41</td>
</tr>
<tr>
<td>Zoology and Botany</td>
<td></td>
<td></td>
<td></td>
<td>173</td>
<td>147</td>
</tr>
<tr>
<td>Physiology</td>
<td></td>
<td></td>
<td></td>
<td>28</td>
<td>28</td>
</tr>
<tr>
<td>Pathology and Bacteriology*</td>
<td>36</td>
<td>50</td>
<td>33</td>
<td>40</td>
<td>45</td>
</tr>
<tr>
<td>Greek</td>
<td>28</td>
<td>33</td>
<td>32</td>
<td>32</td>
<td>36</td>
</tr>
<tr>
<td>Latin</td>
<td>56</td>
<td>60</td>
<td>63</td>
<td>53</td>
<td>66</td>
</tr>
<tr>
<td>Sanskrit, etc</td>
<td>29</td>
<td>43</td>
<td>36</td>
<td>33</td>
<td>51</td>
</tr>
<tr>
<td>Semitic Languages</td>
<td>23</td>
<td>49</td>
<td>41</td>
<td>33</td>
<td>105</td>
</tr>
<tr>
<td>German</td>
<td>131</td>
<td>128</td>
<td>283</td>
<td>100</td>
<td>77</td>
</tr>
<tr>
<td>French, Italian, and Spanish</td>
<td>89</td>
<td>107</td>
<td>95</td>
<td>68</td>
<td>171</td>
</tr>
<tr>
<td>English and Anglo-Saxon</td>
<td>144</td>
<td>149</td>
<td>162</td>
<td>135</td>
<td>168</td>
</tr>
<tr>
<td>History, Economics, and Politics</td>
<td>125</td>
<td>114</td>
<td>111</td>
<td>89</td>
<td>21</td>
</tr>
<tr>
<td>Political Science</td>
<td>3</td>
<td>10</td>
<td>73</td>
<td>73</td>
<td>80</td>
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<tr>
<td>Political Economy</td>
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<td></td>
<td>78</td>
<td>82</td>
<td>88</td>
</tr>
<tr>
<td>Philosophy</td>
<td>49</td>
<td>57</td>
<td>64</td>
<td>62</td>
<td>49</td>
</tr>
</tbody>
</table>

* Including only the courses offered to graduates in medicine.
Report of the Registrar

The degree of Bachelor of Arts was conferred, in 1904-05, upon thirty-three candidates, the degree of Doctor of Medicine upon fifty-three, and thirty-five were promoted to the degree of Doctor of Philosophy. Since degrees were first conferred, in 1878, eight hundred and seventy-two persons have attained the Bachelor's degree, six hundred and eighty-nine have been advanced to the degree of Doctor of Philosophy, and three hundred and seventy to the degree of Doctor of Medicine, as appears from the following table,—the whole number of individuals graduated being seventeen hundred and fifty-nine:

<table>
<thead>
<tr>
<th>B. A.</th>
<th>Ph. D.</th>
<th>B. A.</th>
<th>Ph. D.</th>
<th>M. D.</th>
</tr>
</thead>
<tbody>
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<td>1877-78</td>
<td>0</td>
<td>4</td>
<td>1881-82</td>
<td>41</td>
</tr>
<tr>
<td>1878-79</td>
<td>2</td>
<td>6</td>
<td>1882-83</td>
<td>40</td>
</tr>
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<td>1879-80</td>
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<td>1883-84</td>
<td>41</td>
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<tr>
<td>1880-81</td>
<td>12</td>
<td>9</td>
<td>1884-85</td>
<td>37</td>
</tr>
<tr>
<td>1881-82</td>
<td>15</td>
<td>9</td>
<td>1885-86</td>
<td>37</td>
</tr>
<tr>
<td>1882-83</td>
<td>10</td>
<td>6</td>
<td>1886-87</td>
<td>36</td>
</tr>
<tr>
<td>1883-84</td>
<td>23</td>
<td>15</td>
<td>1887-88</td>
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<td>1884-85</td>
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<td>1889-90</td>
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<td>1893-94</td>
<td>37</td>
</tr>
<tr>
<td>1890-91</td>
<td>51</td>
<td>28</td>
<td>1894-95</td>
<td>45</td>
</tr>
</tbody>
</table>

872 689 370

Certificates of proficiency in applied electricity were awarded to ninety-one persons from 1889 to 1899.

T. R. BALL,
Registrar.
DOCTORS OF PHILOSOPHY


Degrees Conferred


William John Miller, of Manton, Cal., S. B., University of the Pacific,
1900. **Subjects**: Geology, Mineralogy, and Physical Chemistry. **Dissertation**: The Crystalline Limestones of Baltimore County, Maryland. **Referees on Dissertation**: Professors Clark and Mathews.


Aaron Morton Sakolski, of Syracuse, N. Y., Ph. B., Syracuse University, 1902. **Subjects**: Political Economy, Political Science, and History. **Dissertation**: The Finances of American Trade-Unions. **Referees on Dissertation**: Professor Hollander and Dr. Barnett.


Roswell Powell Stephens, of Barnesville, Ga., A. B., University of Georgia, 1896. **Subjects**: Mathematics, Physics, and Electricity. **Dissertation**: I. On a Curve of the Fifth Class. II. On a System of Parascloids. **Referees on Dissertation**: Professor Morley and Dr. Cohen.


Ronald Taylor Abercrombie, of Baltimore, A. B., Johns Hopkins University, 1901.

Clarence Allen Baer, of Milwaukee, Wis., S. B., University of Wisconsin, 1901.

Leon Kahn Baldauf, of Henderson, Ky., A. B., Johns Hopkins University, 1901.

Alice May Ballou, of Providence, R. I., Ph. B., Brown, 1900.

Klieber Heberden Beall, of Fort Worth, Texas, S. B., University of Texas, 1899; M. D., Fort Worth University, 1900.

Bertram Moses Bernheim, of Louisville, Ky., A. B., Johns Hopkins University, 1901.

Kosciusko Walker Constantine, of Birmingham, Ala., A. B., Johns Hopkins University, 1901.

Calvin Duvall Cowles, Jr., of Baltimore, A. B., University of North Carolina, 1901.

William Dick Cutter, of Brooklyn, N. Y., A. B., Yale University, 1899.
Degrees Conferred

Martin Phillip Rindlaub, Jr., of Platteville, Wis., B. L., University of Wisconsin, 1896.
Frank Peyton Rous, of Baltimore, A. B., Johns Hopkins, 1900.
Oscar Menderson Schloss, of Eufaula, Ala., S. B., Alabama Polytechnic Institute, 1901.
Robert Barnard Slocum, of Albany, N. Y., Ph. B., Rochester, 1900.
Lewis Frederic Smead, of Columbus, O., A. B., Wooster, 1901.
Caroline Benson Towles, of Baltimore, A. B., Woman's College of Baltimore, 1893.
Douglas VanderHoof, of Baltimore, B. L., Dartmouth College, 1901.
George Hoyt Whipple, of Ashland, N. H., A. B., Yale, 1900.
Hiram LaMont Youtz, of Des Moines, Iowa, Ph. B., Brown, 1900.

Bachelors of Arts

Walter Albert Baetjer, of Baltimore.
Byron Treat Banghart, of Baltimore County, Md.
James Alvin Bass, of Catonsville, Md.
Benjamin Abram Bernstein, of Baltimore.
William Graham Boyce, of Baltimore.
Riggin Buckler, of Baltimore.
John Francis Cremen, of Baltimore.
Walter David Eiseman, of Baltimore.
Leman Edwin Goldman, of Baltimore.
Rufus King Goodenow, Jr., of Baltimore.
Robertson Griswold, of Baltimore.
Hugh Asbury Hackett, of Baltimore.
William Harkinson Hudgins, of Baltimore.
Andrew Wilmer Hull, of Baltimore.
John Long Jackson, of Baltimore.
Richard Newton Jackson, of Salisbury, Md.
Irving Henry Kohn, of Baltimore.
Thomas Poole Maynard, of Mt. Airy, Md.
Jonathan Earle Mifflin, of Baltimore.
Edward Leyburn Moreland, of Baltimore County, Md.
Harmon Vail Morse, of Baltimore.
Thomas Owings, of Baltimore.
William Watters Pagon, of Baltimore.
Sifford Pearre, of Baltimore.
Nathan Pumphrey Pitcher, of Baltimore.
Carl Samuel Stern, of Savannah, Ga.
William Ringgold Straughn, of Baltimore County, Md.
Thomas Shenton Strobhar, of Baltimore.
John Morris Super, of Baltimore.
Isaac Chandler Walker, of Portland, Me.
Gustav Herman Woltereck, of Baltimore.
Lawrence Counselman Wroth, of Baltimore.
Robert Bamford Zeigler, of Hagerstown, Md.
REPORT ON THE OFFICIAL STATE BUREAUS CONNECTED WITH THE UNIVERSITY

TO THE PRESIDENT OF THE JOHNS HOPKINS UNIVERSITY:

I submit herewith a report concerning the work of the official State Bureaus conducted under the auspices of the Johns Hopkins University. The investigations of these organizations are carried on in large measure by the instructors and students of the geological department, and, therefore, properly constitute a part of the university work.

THE MARYLAND GEOLOGICAL SURVEY

The Maryland Geological Survey, which has been in existence somewhat over nine years, having been established by an Act of the General Assembly in March, 1896, has been in charge of Professor Clark as State Geologist since its establishment. The appropriations for the first two years were $10,000 annually, but were increased in 1898 by the passage of two Acts, one providing for the making of topographic maps for which $5,000 were appropriated, and the other appropriating $10,000 annually for the investigation of the subject of road-building and the preparation of plans and specifications for highway construction. In 1904 a State Aid Highway Act was passed, the administration of which was placed in the control of the Geological Survey. By this Act $200,000 are appropriated annually by the State to meet one-half the cost of the new highways; the other half of the expense is met by the county authorities. With these increases in the annual appropriations have come added duties and increased responsibilities. The work of the Survey now covers a wide field, including geology, topographic surveying, terrestrial magnetism, forestry, hydrography, agricultural soils, and highway engineering.

The geological work which is directly under the charge of the State Geologist, is divided into three divisions covering the areas of the Piedmont Plateau, the Appalachian Region, and the Coastal Plain. Investigations are in progress in all these districts and important areas in each have been thoroughly studied. Reports and maps have been issued for Allegany, Garrett, and Cecil counties, while several others are ready for the press. In the conduct of the geological work the aid of numerous experts in various portions of the country has been sought, particularly in the study of the various groups of fossil plant and animal remains. Monographs on the Eocene and Miocene deposits of the State have already been published, and reports on the Pliocene-Pleistocene, on the Devonian, on the Carboniferous-Permian, and on the Cretaceous deposits are now in process of preparation.

The topographic work has been continued in cooperation with the U. S. Geological Survey. The results of this work are presented to the public in
the form of topographic and election-district maps, which show in a very detailed manner not only the relief of the land but all cultural features as well. Maps of Allegany, Garrett, Harford, Cecil, Kent, Worcester, Prince George's, Calvert, and St. Mary's counties have already been issued, as well as a map of Baltimore and vicinity. Surveys are also completed for Baltimore, Queen Anne's, Caroline, Talbot, Dorchester, Wicomico, and Somerset counties, and maps for all these counties are now in press. Three-fourths of the State has now been surveyed on the scale of one mile to the inch.

The Highway Division of the Survey is under the direction of Mr. W. W. Crosby, as Chief Engineer. He has a large force of assistants, most of whom are actively engaged in the preparation of plans and specifications for new highways and in the supervision of the construction of such roads as are now in process of building. The State Aid Road Act which became operative on January 1, 1905, has been extensively availed of by the various counties of the State, eighteen out of the twenty-three counties making application for aid prior to March 1 as required by law. Surveys, followed by plans and specifications on which estimates for cost of construction were based, were furnished during the past season for 73 miles of roads, of which over 40 were contracted for during the season of 1905. This is regarded as an excellent showing for the first year, and it is expected that a still larger mileage will be undertaken during the second year. Much delay was caused early in the season because the constitutionality of the Act was questioned. The Court of Appeals of the State decided favorably to the Act in the middle of February.

Numerous tests were also made by the Highway Division in its testing laboratory of materials for city streets and country roads, a work which has resulted in much more intelligent methods of construction being employed throughout the State. The city of Baltimore has for several years submitted to the Highway Division samples of the vitrified brick and crushed stone which it proposed using on the city streets. By this means the city has been protected against the purchase of inferior materials. Similarly tests of cement for State and municipal construction have also been made from time to time. The aid which the Highway Division is rendering to the various public interests of the State is coming to be more fully appreciated year by year.

**The Maryland Weather Service**

The Maryland Weather Service has been in existence fourteen years, having been organized in May, 1891, under the joint auspices of the Johns Hopkins University, the Maryland Agricultural College, and the U. S. Weather Bureau. It was incorporated as an official organization by an Act of the General Assembly in 1892, which was approved by the Governor in April of that year. The State Service under this Act was permanently established at the Johns Hopkins University under the direction of a board of control, who are nominated by the heads of the three institutions above
mentioned and subsequently commissioned by the Governor. The appropriation for the maintenance of the Bureau has been $2,000 annually from the beginning, the fund being employed mainly for investigations relating directly to the climatology of the State. Professor Clark is the chief of the bureau.

The investigations of the Maryland Weather Service during the past year have mainly centered around the study which is being given to the climate of Baltimore by the meteorologist of the bureau, Dr. Fassig, and his assistants. This work is now partly in press and will be published as a monograph. It is planned to make the study much more complete than has ever been given to a similar area.

**The Mason and Dixon Line Re-Survey**

By an Act of the General Assembly of 1900, provision was made for the re-survey and re-marking of the Mason and Dixon Line, which had become partially obliterated in the lapse of over a century since the boundary between Pennsylvania and Maryland was first established. Many of the monuments which marked the line had become destroyed or otherwise displaced, and an appropriation of $5,000 was made on behalf of each of the States of Maryland and Pennsylvania to re-locate and re-mark the line. Professor Clark was appointed Commissioner on behalf of the State of Maryland, and since the year 1900 has been engaged with the Commissioner on behalf of the State of Pennsylvania in carrying out the provisions of the Act authorizing the survey. The work has been directly in charge of an expert engineer detailed by the Superintendent of the U. S. Coast and Geodetic Survey, his assistants being selected in part from Maryland and in part from Pennsylvania. The survey is now completed and a report is being prepared by the Commissioners for submission to the Governors of the two States.

Much aid has been rendered the State official organizations above mentioned by the chiefs of the various national scientific bureaus. Particular reference should be made to the cooperation granted by Hon. Charles D. Walcott, Director of the U. S. Geological Survey, Professor Willis L. Moore, Chief of the U. S. Weather Bureau, Professor O. H. Tittmann, Superintendent of the U. S. Coast and Geodetic Survey, and Mr. Gifford Pinchot, Chief of the U. S. Forest Service, all of whom have cordially supplemented the work of the State bureaus in highly important ways. The work of the State organizations is in progress along so many lines, that it affords admirable opportunities to the advanced students of the geological department to obtain much-desired practical experience both in the field and in the laboratory; at the same time the State has received a large return at little cost, so that the benefits are mutual.

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Wm. Bullock Clark,

State Geologist and Director.
REPORT OF THE DEAN OF THE MEDICAL FACULTY

TO THE PRESIDENT OF THE JOHN HOPKINS UNIVERSITY:

I beg leave to submit the following report of the medical department for the session of 1904-05. The total number of students enrolled during the session as candidates for the degree of Doctor of Medicine was 291 as compared with 276 during the previous session. Twenty-two of these students were women. The entering class was smaller than in the previous year. Eighty-four satisfactory applications had been received at the beginning of the term, but only seventy-four of the candidates reported for formal matriculation. Three of this number were admitted to the second year after passing the usual examinations and presenting certificates covering their preparatory and medical studies.

At the beginning of the session we were so fortunate as to have with us Dr. T. Clifford Allbutt, F. R. S., Regius Professor of Medicine in the University of Cambridge, England. He consented to give an opening address to the students and members of the faculty on the evening of October 5, 1904. The address attracted a large audience and was much enjoyed.

The medical instruction during the year was greatly aided by the conveniences offered by the new surgical building. This building, erected by the Trustees of the Johns Hopkins Hospital, was completed during the latter part of the session of 1903-04. It offers ample quarters for clinical and laboratory instruction in medicine and surgery, and has added much to the effectiveness of the instruction during the last two years of the course.

Another improvement, long discussed, was inaugurated during this session. For a number of years the students in our third year have been given practical exercises in operative surgery, especially upon animals suffering from various troubles amenable to operations. This instruction has been supervised very carefully and has been carried on with the greatest possible care in the matter of treatment of the animals. Very inadequate quarters, however, were assigned to this work, and since experience has shown that it is a feasible and very valuable training for our medical students, the Trustees of the University generously appropriated an adequate sum for the erection of a new laboratory which should provide suitable accommodations for this work, as also for research and instruction in experimental pathology, and moreover should contain more commodious quarters for the animals used in the various laboratories. The plans for

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this new building were decided upon and its construction begun during the latter part of the session. In thus devoting a special laboratory and equipment to systematic instruction of medical students in the technique of practical surgery, there has been inaugurated a new departure in medical training.

At the Commencement exercises in June, fifty-three students were awarded the degree of Doctor of Medicine. Of this number the twelve whose records were the highest for the entire four years, were nominated to the Trustees of the Johns Hopkins Hospital for appointment as House Officers for the ensuing year. The twelve students who won this honor are, in order of merit, as follows: D. VanderHooft, F. P. Rous, P. K. Gilman, G. H. Whipple, K. H. Beall, R. P. Higgins, J. T. Haller, W. L. Moss, J. A. E. Eyster, C. M. Faris, H. I. Wiel, and M. S. Danforth.

Owing to the fact that some of this number had accepted hospital positions elsewhere or had made other plans, the following students, in order of merit, were nominated to fill possible vacancies: R. B. Slocum, E. H. Richardson, and F. R. Ford. In addition to the graduates who received these nominations, the following members of this class have obtained positions in hospitals or medical schools, or are pursuing advanced studies in the hospitals of Europe:

Ronald Taylor Abercrombie, A. B., 1901.—Director of the Gymnasium; Resident Physician, Church Home and Infirmary, Baltimore.

Clarence Allen Baer, B. L., Univ. of Wisconsin, 1900, and S. B., 1901; Univ. of Michigan, Summer of 1901.—Graduate Student, St. Louis Hospital, Paris.

Leon Kahn Baldauf, A. B., 1901.—Bender Hygienic Laboratory, Albany, N. Y.

Alice May Ballou, Ph. B., Brown Univ., 1900, and A. M., 1901.—Interne, New England Hospital, Roxbury, Mass.

Bertram Moses Bernheim, A. B., 1901.—Graduate Student, Europe.

Kosciusko Walker Constantine, A. B., 1901.—Graduate Student, Univ. of Vienna.

Calvin Duvall Cowles, Jr., A. B., Guilford College, 1900, and Univ. of North Carolina, 1901.—Assistant Resident Obstetrician.

William Dick Cutter, A. B., Yale Univ., 1899; Student, Univ. of Bern, 1900.—Interne, The French Hospital, New York.

Murray Snell Danforth, A. B., Bowdoin College, 1901.—Interne, Rhode Island General Hospital, Providence, R. I.

Otho Lee Dascombe, A. B., Bowdoin College, 1901.—Resident Physician, The Waltham Hospital, Waltham, Mass.

Howard Irving Davenport, A. B., Hamilton College, 1901, and A. M., 1904.—Demonstrator of Bacteriology and Pathology, Syracuse Univ. Med. Sch., Syracuse, N. Y.
Homer J. Davidson, S. B., Wabash College, 1899.—Resident Physician, Seattle General Hospital, Seattle, Wash.

Solon Arthur Dodds, Ph. B., Wesleyan Univ. (Conn.), 1901.—Assistant Resident Obstetrician.

Charles Edward Downman, Jr., A. B., Emory College, 1901; Student, Vanderbilt Univ., 1901.—Graduate Student, Univ. of Berlin.

John Augustine English Eyster, S. B., Maryland Agricultural College, 1899; Graduate Student, 1899-1901.—Assistant in Physiology.

Allen Wier Freeman, S. B., Richmond College, 1899: Graduate Student 1900-01.—Resident Physician, Newark City Hospital, Newark.


Sarah Mabel Grier, A. B., Bucknell Univ., 1901, and A. M., 1904.—Resident Physician, Syracuse Hospital, Syracuse, N. Y.

Edith Hale, A. B., Radcliffe College, 1901.—Interne, New England Hospital, Roxbury, Mass.

Francis Jenks Hall, A. B., Yale Univ., 1899.—Interne, Methodist Episcopal Hospital, Philadelphia, Pa.

Helen Hempstead, A. B., Allegheny College, 1900; Cornell Univ., 1900-01.—Interne, New York Infirmary for Women and Children, N. Y.

Norval Thomas Hepburn, A. B., Randolph-Macon College, 1900, and A. M., 1901.—Interne, The Hartford Hospital, Hartford, Conn.

Donald Russell Hooker, A. B., Yale Univ., 1899, and M. S., 1901.—Graduate Student, Univ. of Berlin.

Henry Spencer Houghton, Ph. B., Ohio State Univ., 1901.—Fellow, Rockefeller Institute for Medical Research, N. Y.

George Bilton Lawson, A. M., Randolph-Macon College, 1899.—Resident Physician, King's Co. Hospital, Brooklyn, N. Y.

Eugene Joseph Leopold, A. B., 1901.—Graduate Student, Univ. of Berlin.

David Marine, A. B., Western Maryland College, 1900; Graduate Student, 1900-01.—Resident Physician, The Lakeside Hospital, Cleveland, O.

Henry Augustus Martelle, A. B., Bowdoin College, 1901.—Interne, The Hartford Hospital, Hartford, Conn.

Archibald Leete McDonald, A. B., Univ. of North Dakota, 1901.—Instr. in Anatomy and Physiology, Univ. of North Dakota, Grand Forks, N. D.

Arthur William Meyer, A. B., Univ. of Wisconsin, 1898.—Assistant in Anatomy.

Eugene Bishop Mumford, S. B., Univ. of Wisconsin, 1901.—Interne, Gouverneur Hospital, New York.

James Edgar Paullin, Jr., A. B., Mercer Univ., 1900, and Graduate Student, 1900-01.—Interne, Rhode Island General Hospital, Providence, R. I.

Charles Rickshe, S. B., Parsons College, (Ia.), 1901.—Resident Physician, Sheppard and Enoch Pratt Hospital, Towson, Md.
Oscar Menderson Schloss, S. B., Alabama Polytechnic Institute, 1901.—Resident Physician, King's Co. Hospital, Brooklyn, N. Y.
Lewis Frederic Smead, A. B., Wooster Univ., 1901; Summer School, Univ. of Wisconsin, 1901.—Resident Physician, Union Protestant Infirmary, Baltimore.
Charles Walter Stone, A. B., Washington and Jefferson College, 1901, and A. M., 1904.—Interne, Lakeside Hospital, Cleveland, O.
Caroline Benson Towles, A. B., Woman's College of Baltimore, 1893.—Graduate Student, University of Prague.
George Hoyt Whipple, A. B., Yale Univ., 1900.—Assistant in Pathology.

The special courses offered to graduates in medicine were attended by forty-six physicians. Almost all of these courses involved individual instruction, and, in accordance with the announcement in our catalogue, were intended to place the instruction to graduates upon a higher plane than has been attempted heretofore, that is, to supplant general elementary instruction to large numbers by special courses of a more advanced character. This change has brought about a decrease in the total number of graduate students in attendance, but it is believed that the results accomplished are of more value, and that in the future this opportunity will be more generally utilized. The total enrollment of students, graduates and undergraduates, for the year amounted to 337.

The following members of the faculty resigned their positions during the year: Dr. R. B. Bean, Assistant in Anatomy, Dr. C. E. Brush, Assistant in Medicine, Dr. J. A. Sampson, Assistant in Gynecology, Dr. J. S. Billings, Lecturer on the History of Medicine, Dr. R. Fletcher, Lecturer on Forensic Medicine, Dr. W. Osler, Professor of Medicine, Dr. S. Paton, Associate in Psychiatry, Dr. H. B. Jacobs, Associate in Medicine, Dr. A. E. Guenther, Assistant in Physiology, and Dr. G. B. Holden, Assistant in Gynecology. Leave of absence was granted to Dr. G. L. Streeter to pursue studies in Naples from May 1 to October 1, 1905.

The following students withdrew during the year on account of ill health, W. J. Boland and J. N. McCaughrin.

W. H. Howell, Dean.
The several serials have been continued through the year, as follows:

Of the Studies in Historical and Political Science, edited by Professor Vincent, Professor Hollander, and Professor Willoughby, the twenty-second series is completed. It contains 662 pages, octavo. The twenty-third series is now in progress. The issues have included Reconstruction in South Carolina, State Government in Maryland, 1777-1781, English Colonial Administration under Lord Clarendon, Justice in Colonial Virginia, and Napoleonic Exiles in America. Two more numbers now in press will conclude the series for 1905.

Of the American Journal of Mathematics, edited by Professor Morley, the twenty-sixth volume has been completed. Volume twenty-seven is now in progress. A portrait of Dr. G. W. Hill was issued with the volume.

Of the American Chemical Journal, edited by President Remsen, volume thirty-three has been completed, and volume thirty-four is now in progress.

Of the American Journal of Philology, edited by Professor Gildersleeve, volume twenty-five has been completed, and volume twenty-six is in progress.

Of the Modern Language Notes, edited by Professor Elliott, volume twenty is in progress.

Of the Journal of Terrestrial Magnetism and Atmospheric Electricity, edited by Dr. Bauer, volume nine has been completed, and volume ten is in progress.

Nos. 173 to 180 of the University Circulars have been issued since the last report. These Circulars are now issued as part of the official publications of the University.

Of the Journal of Experimental Medicine, numbers four, five, and six of volume six, completing the volume, were issued in February. These contain 238 pages, octavo, and 21 plates. This journal will be hereafter published by the Rockefeller Institute for Medical Research.

The publication of the second series of Reprints of Economic Tracts, under the editorial direction of Professor Hollander, was begun during the year. The first number, A Discourse of Trade, by Nicholas Barbon, London, 1690, has been issued, and the other numbers are in press.

Of the Johns Hopkins Hospital Reports, volume twelve has been issued.

Of the Bulletin of the Johns Hopkins Hospital, volume sixteen is now in progress.
Of the Hebrew Text of the Polychrome Bible, edited by Professor Haupt, the Book of Kings has been issued since the last report. This contains 315 pages.

Of the Baltimore Lectures on Molecular Dynamics and the Wave Theory of Light (716 pages, octavo), by Lord Kelvin, we have become the American publishers during the year.

A new and revised edition of Professor Brooks’s book on the Oyster has been issued. It contains 225 pages, octavo.

A metrical translation of the Book of Ecclesiastes, with introductory and explanatory notes, by Professor Haupt, has also just appeared.

The twenty-ninth Report of the President was issued in December, the Catalogue of the Medical Department in March, and the University Register in April.

The system of exchanges has been conducted as in previous years.

There have been received, in accordance with the regulations, 150 copies of the dissertations accepted for the degree of Doctor of Philosophy, from:

Bassett, H. P.—Determination of the Relative Velocities of the Ions of Silver Nitrate in Mixtures of the Alcohols and Water and on the Conductivity of such Mixtures.

Berg, G. O.—Metaphor and Comparison in the Dialogues of Plato.

Bond, B. W., Jr.—State Government in Maryland, 1777-1781.

Carroll, C. G.—I. A Study of the Conductivity of Certain Electrolytes in Water, Methyl and Ethyl Alcohols, and Binary Mixtures of those Solvents. II. The Relation between Conductivity and Viscosity.

Chitwood, O. P.—Justice in Colonial Virginia.

Critclilow, F. L.—On the Forms of Betrothal and Wedding Ceremonies in the Old-French Romans d’Aventure.

Farr, J. M.—Intensives and Reflexives in Anglo-Saxon and Early Middle-English.

French, J. C.—The Problem of the Two Prologues to Chaucer’s Legend of Good Women.

Glenn, L. C.—The Pelecypoda of the Miocene of Maryland.

Gould, W. E.—The Subjunctive Mood in Don Quijote de la Mancha.

Guenther, A. E.—A Study of the Comparative Effects of Solutions of Potassium, Sodium, and Calcium Chlorides on Skeletal and Heart Muscle.

Harry, P. W.—A Comparative Study of the Aesopic Fable in Nicole Bozon.


Hollander, L. M.—Prefixal S in Germanic together with the Etymologies of Fratze, Schraube, Guter Dinge.

Hollis, J. P.—The Early Period of Reconstruction in South Carolina.

Jones, T. M.—Case Constructions of Similia and its Compounds.

Kurrelmeyer, H.—The Historical Development of the Forms of the Future Tense in Middle High German.
Pattillo, N. A.—Certain Partial Differential Equations connected with
the Theory of Surfaces.
Bouth, J. E., Jr.—Two Studies on the Ballad Theory of the Beowulf.
Snavely, C.—A History of the City Government of Cleveland, Ohio.
Springsteen, H. W.—The Magnetic Rotatory Dispersion of Sodium
Vapor.
Taylor, L. S.—An Electrical Method for the Combustion of Organic
Compounds.
Wheaton, L. N.—The Maryland and Virginia Boundary Controversy
(1663–1894).
Winter, W. P.—An investigation of Sodamide and of its Reaction-
products with Phosphorus and with Phosphorus Pentachloride.
Wright, J. M.—History of the Bahama Islands, with a Special Study of
the Abolition of Slavery in the Colony.

1905, September 1.

N. Murray.
ABSTRACT OF THE REPORT OF THE LIBRARIAN

The number of bound volumes in the library is now 123,698, the accessions during the year amounting to 5,308.

The number of pamphlets and unbound volumes received exceeds 5,000. The total number of pamphlets is estimated at 100,000. Over 1,500 serials are regularly received.

Among the important gifts of the year were:

From Mr. A. G. Hutzler, the sum of $500 (his second gift) for the purchase of economic classics.

From Mr. E. Schmeiser, the sum of $500 for the purchase of books for the German Seminary.

From Mr. Jacob Epstein, the sum of $500 for the purchase of books in political economy.

From Mr. Theodore Marburg, a number of works in physics, in continuation of previous gifts.

From an anonymous source, the International Catalogue of Scientific Literature, published by the Royal Society, in continuation of previous gifts.

From Mr. George A. Von Lingen, the German consul at Baltimore, the publications of the Geological Survey of the German Empire, in continuation of previous generous gifts.

From a gentleman of Baltimore, a set of Lord Overstone's Collection of Economic Tracts.

From an anonymous source, through Mr. J. M. Glenn, one hundred and twenty miscellaneous volumes.

From the Belgian government, a large and important set of the publications of the Belgian Antarctic Expedition.
From the University of Chicago, a full set of its Decennial Publications.
From the Carnegie Institution, Washington, a set of its publications.
From Dr. E. R. L. Gould, of New York, a large collection of books and pamphlets on economics.
From the Government of Mexico, seventy-five volumes of publications.
From Mrs. D. L. Bartlett, twenty-two volumes in Italian literature.
From the A. S. Abell Co., a set of the Sun Almanac, 1878-1905.
From President Gilman, one hundred and forty miscellaneous volumes.
From President Remsen, thirty-one volumes, chiefly in chemistry.
From Professor Gildersleeve, a large number of books, principally in the classics.
From the Duc de Loubat, a number of works on American archaeology.
From Professor H. Hyvernat, his Album de Paléographie Copte.
Mr. Henry Holt has continued his generous gifts of his publications.
Important gifts have also been received from Professor Baldwin, Professor Bright, Professor Smith, Mr. H. J. Rogers, the Republic of Uruguay, Mr. W. F. Melton, Mrs. Joseph Howland, and others. A list of gifts is appended to this report.
The usual academic exchanges have been received from the universities of Europe and America.
The books purchased have been generally devoted to the work of the courses in progress.
Among the more noteworthy additions during the year are:
In the seminary library of philosophy and psychology. A number of important books have been purchased under the direction of Professor Baldwin. All the volumes in these subjects have been removed from the general library. The collection now numbers about 1,500 volumes, of which over 300 have been purchased during the year, and may be considered a well-equipped seminary collection.
In the German seminary library. About 700 volumes have been purchased with the gift of Mr. Schmeisser ($500); above referred to, and with $200 of the Wehrhane income for the year. The books were selected by Professor Wood, and add greatly to the value of the library. Among works purchased were sets of Ifland, Sudermann, Auerbach, Anzengruber, Fückler-Muskaau, Hebbel, Förster, Campe, Gottscheff, and other German authors.
In the historical department. A collection of books, mainly sources of European history, has been purchased under the direction of Professor Keutgen. Many important and costly works were secured.
In the collection in economics. This has been increased by purchases from the Hutzler gift, the Labor and Capital fund, and other donations. An admirable collection is being got together through the efforts of Professor Holland. The Hutzler collection now includes about 600 volumes and the Labor and Capital collection over 300, with a large amount of
unbound material. To this is to be added the collection of works in economics previously in the possession of the university.

In the biological library. There has been added a considerable number of botanical books, including Engler's Das Pflanzenreich, in course of publication, and other costly biological books, including the Reports of the German Deep Sea Expedition.

Accessions have been made to the physical library through purchases for the Rowland Memorial Library and Mr. Marburg's gift for physical books.

For the romance seminary library has been purchased the Atlas Linguistique de la France, a number of definitive editions of the classical French authors, and other works.

The gift of Mr. Crane is enabling us to purchase books on international law that have been long needed. A number of works in political science have also been secured for this collection by exchange.

To the classical library have been added some important works, especially in archaeology and epigraphy. Among these are the works of Borghesi, Furtwängler and Reichold's Griechische Vasenmalerei, Richter and Taylor's Classic Christian Art, Collitz's Greek Dialect Inscriptions, the Corpus Inscriptionum Etruscarum, the Oxford Greek Texts, etc.

To the Semitic library have been added the volumes needed to complete the set of the Semitic Text and Translation Series, the Turin Papyrus, and other works.

For the geological library important purchases have been made. These include a set of the Lethaea Geognostica, etc., and the volumes needed to keep up sets of transactions and serials.

A number of volumes have also been added to our English, mathematical, and chemical collections.

Many purchases for the medical library have been made, including Graefe-Saemisch's Handbuch, Kolle and Wasserman's Mikroorganismen, Gall and Spurzheim's Anatomy of the Nervous System, Roth's Anatomical Atlas, sets of Frommel's Jahresbericht, Beiträge zur Kinderheilkunde, Archiv für Anthropologie, etc.

By the authority of the Trustees, the librarian has deposited with the Maryland Historical Society a portion of the collection of Scharf MSS. and pamphlets. These are held on deposit by the society, subject to recall by the university at any time.

The administrative staff of the library consists of Dr. M. L. Raney, assistant librarian, and Mr. August Munzner, assistant to the librarian.

The general reading room has been in charge of Miss Frieda C. Thies.

The classical library has been in charge of Dr. C. W. E. Miller, under the supervision of Professor Gildersleeve.

The modern language library has been in charge of Dr. Keidel, under the supervision of Professors Wood and Elliott.

The English library has been under the direction of Professor Bright.
The historical collection has been in charge of Miss Daran, under the direction of Dr. Vincent.
The chemical library has been in charge of Dr. H. C. Jones, under the direction of President Remsen.
The biological library has been under the direction of Professor Brooks and Dr. Andrews, with a library attendant.
The geological library has been in charge of Dr. Mathews, under the supervision of Professor Clark, with Miss Ryan as an assistant librarian.
The astronomical library has been in charge of Dr. Hulburt.
The physical and mathematical collections have been under the supervision of Professor Ames.
The library of philosophy and psychology has been in charge of Professor Baldwin.
The library of the medical department has been under the supervision of Professor Howell, with Miss Gordon as the attendant in charge, and with the cooperation of Miss Blogg, who is in charge of the hospital library and of the university books there deposited.
During the year the New Book Department has purchased 1,750 volumes of the estimated value of $3,500. Since the opening of the department, over 111,000 volumes of the estimated value of about $178,000 have been received for inspection.
The library is especially indebted to the Librarian of Congress for many courtesies and services during the year, as well as to the Smithsonian Institution and other governmental departments in Washington.

N. Murray,
Librarian.

1905, October 1.
GIFTS TO THE LIBRARY
(Also see report of the Librarian)

ABBE, C. A large number of volumes for the Abbe Meteorological Library.


ABERDEEN, UNIVERSITY LIBRARY. Aberdeen University Studies. 5 vols. O.

AIX, UNIVERSITY OF. Eighteen academic publications.

ALBERT, F. (Author.) La Proteccion I Replantacion de las Salvas; La Seccion de Ensayos Zoológicos I Botánicos del Ministerio de Industria. Santiago, 1903. O.

AMERICAN LUMBERMAN. One Hundred Eminent Lumbermen. Chicago, 1905. Q.

ANONYMOUS. ("A friend of the University.") Collection of Lord Overstone's Tracts. London, 1856, 57 and 59. 7 vols. O.

ANONYMOUS. Cyclopedia of Political Science, Political Economy and U. S. History; ed. by J. L. Laiser. Chicago, 1882-84. 3 vols. Q.

ANONYMOUS. An anonymous gift through John M. Glenn of one hundred and twenty miscellaneous volumes.

ANONYMOUS. The International Catalogue of Scientific Literature in continuation of previous gifts.

ANONYMOUS. A set of Chateaubriand's works in eighteen volumes.

ANTHONY, SUSAN B. George William Curtis in the New York State Constitutional Convention, 1867. D; and two other volumes. O.


The English Ancestors of the Shippen Family. Philadelphia, 1904. Q.

BALDWIN, J. M. A number of volumes in psychology.

BALTIMORE GEOGRAPHICAL SOCIETY. The Bahama Islands; ed. by G. B. Shattuck. New York, 1905. Q.

BARBER, E. M. (Author.) A Contribution to the History of Commercial Education. O.

BARNETT, G. E. A number of volumes on capital and labor.

BARTLETT, MRS. D. L. Opere Volgari di Giovanni Boccaccio, Edizioni Prima. Firenze 1827-34. 17 vols. O.


Boccaccio, G., Rime. Livorno, 1802. O.

Boccaccio, G., La Vita di Dante. Firenze, 1888. O.


BELGIUM, GOVERNMENT OF. Seventeen publications.

BERGENS MUSEUM. Nordgaard, O., Hydrographical and Biological Investigations in Norwegian Fjords. Bergen, 1905. F.

BERLIN, TECHNISCH NE Hochschule. Three academic publications.

BERLIN, UNIVERSITY OF. Two hundred and thirty-eight academic publications.

BESANÇON, UNIVERSITY OF. Two academic publications.


Anecdota Oxoniensia, Medieval and Modern Series, Part XII. Oxford, 1905. O.
Gifts to the Library

BOND, W. R. Record of North Carolina in the War of 1861-65. Goldsboro, 1904. O.
Bonn, University of. Academic publications for the year.
BONDEDAH, University of. One hundred and seventy-four academic publications.
BRAND, W. F. Reid, G. W., Conscience. New York, 1905. D.
BRAZILIAN GOVERNMENT. Brazil at the Louisiana Purchase Exposition. St. Louis, 1904.
BRIGHT, J. W. A number of volumes in English literature.
BUCKLER, W. H. A number of publications. (See p. 110).
CAM, University of. Thirty academic publications.
CAPEY, F. G. (Author.) Suffrage Limitations at the South. Boston, 1905. O.
CAMBRIDGE (Mass.) CITY CLERK. Annual Documents, 1904. O.
CARNEGIE INSTITUTE OF WASHINGTON. Twenty-six publications.
CHARLESTON, S. C., MAYOR OF. (Hon. R. Goodwyn Rhett.) Year Book for 1904.
CHAZAL, P. E. (Author.) A Sketch of the South Carolina Phosphate Industry, Charleston, 1904. O.
CHICAGO, University of. Seventy-five academic publications. (See p. 111.)
CINCINNATI, University of. Publications for the year.
CLARKE, D. N. Y. Clearing House Association, 1854-1905. O.
CLERMONT-FERRAND, University of. Five academic publications.
COLOMBIA UNIVERSITY. Publications for the year.
COPENHAGEN, University of. Twenty academic publications.
CORNELL UNIVERSITY LIBRARY. Publications for the year.
DANSEY, C. W. (Author.) Man in the Democracy. O.
DERRY, G. H. (S. J.) Casey, P. H. (S. J.). Notes on a History of Auricular Consecu-

Phillyadelphia, 1899. D.
DUJON, University of. Twenty-one academic publications.
DODGE MANUFACTURING COMPANY. Power Transmission Engineers. O.
DREYFUSS-BRIAS, E. (Author.) Plagiats et Reminiscences ou le Jardin de Racine. Paris, D.
DUNN, J. P. (Author.) The Negro Issue. Indianapolis, 1904. O.
EIGHTHALL, E. d. (Author.) Alexis de Tocqueville et la Démocratie Libérale. Paris, 1897. D.
ENGEL, J. S. (Author.) Analytic Interest Psychology and Synthetic Philosophy. Baltimore, 1904. O.
EURLANDEN, University of. One hundred and seventy-nine academic publications.
EVANS, H. R. (Author.) The Napoleon Myth. Chicago, 1905. O.
FALT, W. (Author.) Der Elweiss-stoffwechsel bei der Allkaptonurie. Nurnburg, 1904. O.
Johns Hopkins University Circular

FIELD, A. M. (Author.) Six of his recent studies of ants.
FRANCE, MINISTER OF PUBLIC INSTRUCTION. Statistique de l’Enseignement Primaire, Paris, 1904; and a number of other official publications.
FRANKLIN, C. L. Dedekind, R., Essays on the Theory of Numbers; tr. by W. W. Beman. Chicago, 1901. O.
COURANT, M. Oskouo. Paris, 1904. D.
FREDERIKSEN, D. M. (Author.) The Old Common Law and the New Trusts. O.
FREIBURG, UNIVERSITY OF. One hundred and fifty academic publications.
GENEVA, PUBLIC LIBRARY. Aubert, H. Notes sur l’Histoire de ses Ressources Financieres pour les Acquisitions. Geneva, 1905. O.
GERMAN COMMISSION, WORLD’S FAIR, ST. LOUIS. Gedenkblatter für das goldene Buch der Deutschen in Amerika.
GIESSEN, UNIVERSITY OF. Seventy-two academic publications.
GILDER BLEEKE, E. L. A number of miscellaneous volumes.
GILMAN, D. C. One hundred and forty-four miscellaneous publications.
GÖTTINGEN, UNIVERSITY OF. One hundred and forty-nine academic publications.
GOFFELSBORED, F. (Author.) Studien über die Anwendung der Capillaranalyse. Basel, 1904. O.
Gould, E. R. L. A large collection of books and pamphlets in economics.
GRANGER, W. S. Guild, R. A. Early History of Brown University. Providence, 1897. O.
GRAZ, UNIVERSITY OF. Two academic publications.
GREEN, S. A. Joseph Elliot, Minister of Guilford, Conn., 1664-1694; a number of other miscellaneous works.
GREENE, H. E. Four volumes in English literature.
GREENWICH ROYAL OBSERVATORY. Magnetical and Meteorological Observations. Edinburg, 1904. E.
GRIEFSWALD, UNIVERSITY OF. One hundred and forty-five academic publications.
GREENBRO, UNIVERSITY OF. Thirteen academic publications.
GROSS, R. J. (Author.) The American Consular Service. Chicago, 1905. O.
HARLEM, SOCIETE HOLLANDAISE DES SCIENCES. Oeuvres de Christian Huygens. Vol. 10. La Haye, 1905. Q.
HARPER, J. O. Sixteen miscellaneous volumes.
HARVARD COLLEGE: ASTRONOMICAL OBSERVATORY. Publications for the year.
HARVARD COLLEGE: MUSEUM OF COMPARATIVE ZOOLOGY (Prof. A. Agassiz, Director). Publications for the year.
2 Vols. Q.
Quinquennial Catalogue of the Officers and Students, 1865-1905. Cambridge, 1905. O.
A number of other volumes.
HARVARD UNIVERSITY, LAW SCHOOL. Quinquennial Catalogue, 1871-1904. Cambridge, 1905. O.
HATSWALD, H. (Author.) Two books on polarized light. Magdeburg, 1902-04. F.
HEIDELBERG, UNIVERSITY OF. Academic publications for the year.
HEIDINGSFELD, M. L. (Author.) Twenty-two volumes.
HILL, JR. J. (Author.) The Contemporary Development of Diplomacy.
HINDBERG, L. K. (Author.) Practical Bacteriology. Baltimore, 1904. O.
Action of Light as a Therapeutic Agent. Providence, 1904. O.
Gifts to the Library

HOLT, HENRY, & Co. Their publications for the year.
HOLT, L. H. (Trans.) The Elene of Cynewulff, tr. into English prose. New York, 1904. O.
HOWLAND, Mrs. J. Seventeen squeezes of Egyptian subjects.
A book of Cuban prints; A map in relief.
ILLINOIS CENTRAL RAILROAD COMPANY. Abraham Lincoln as Attorney for the Illinois Central Railway Company. O.
IOWA STATE HISTORICAL SOCIETY. Messages and Proclamations of the Governors of Iowa. Iowa City, 1904-05. Q.
ITALY, MINISTER OF PUBLIC INSTRUCTION. Le Opere di Galileo Galilei, Edizione Nazionale, Vol. XV. Firenze, 1904. Q.
Government In State and Nation. New York, 1904. O.
Observations sur les Guepes. Paris, 1903. O.
Observations sur les Fourmis. Limoges, 1904. O.
JANNEY, J. J. Lake Mohonk Conference of Friends of the Indian, 1904. O.
JANNEY, O. E. Friends' General Conference held at Toronto, 1904. O.
JOHN CREASE LILRARY. A List of Cyclopedias and Dictionaries with a List of Directories. 1904. Q.
JOHNSON, HENRY W. Facsimile of the First Issue of the Maryland Journal, now called the Baltimore American, No. 1, August, 1773.
JONES, F. A. (Author.) New Mexico Mines and Minerals. Santa Fe, 1904. O.
JUSTI, H. A collection of papers on the labor problem.
KESSLER, N. A. (Author.) The Relative Positions of the Arc and Spark Lines of the Spectra of Titanium, etc.
KESTLER, F. (Author.) Die Ermittlung des richtigen elektrodynamischen Elementargesetzes. Budapest, 1905. O.
KIEL, UNIVERSITY OF. One hundred and sixty-six academic publications.
KNOWLE, H. McC. Three volumes on medical subjects.
KÖCHELBURG, UNIVERSITY OF. Eighty-two academic publications.
LANIER, C. His photograph and an autograph copy of his sonnet entitled, "To a Foot Dying Young, S. L." received through Mr. W. F. Melton.
LAYAL UNIVERSITY. Publications for the year.
LEIPZIG, UNIVERSITY OF. Five hundred and fifty-nine academic publications.
LEVASSEUR, E. (Author.) Géographie et Statistique. 1905. O.
LEYDEN, UNIVERSITY OF. Fifteen academic publications.
LICHTENSTEIN, G. (Author.) Early Social Life in Edgecombe. Richmond, 1904. O.
LIGON, UNIVERSITY OF. Five academic publications.
LILLER, UNIVERSITY OF. Sixty-four academic publications.
Codex Borgia; ed. by E. Seler. Band I. Berlin, 1904. F.
LOVEMAN, R. His photograph and an autograph copy of his poem entitled, "Rain Song," received through Mr. W. F. Melton.
LYONS, UNIVERSITY OF. Two hundred and thirty-six academic publications.
MACFARLAND, C. S. (Author.) Jesus and the Prophets. New York, 1905. O.

McGILL, UNIVERSITY LIBRARY. Seven academic publications.

MACKALL, L. L. Burkhardt, C. A. H., Zur Kenntniss der Goethe-Handschriften II. Wien, 1899. O.

Knapp, A., Auf Göthe's Hingang am 28 March, 1832. Elberfeld, 1832. O.

Maltland, F. W., Domesday Book and Beyond. Cambridge, 1897. O.

Copy of a Schiller note.

MADRID. ASTRONOMICAL OBSERVATORY. Observaciones Meteorologicas. Madrid. 1904. O.

MADRID, BIBLIOTECA NACIONAL. Catálogo de la Exposición Celeste en la Biblioteca Nacional en el tercer Centenario de la Publicación del Quijote, 1905. Q.

MARBURG, THEODORE. A number of works in physics.

MARR, B. (Author.) Die Symbolik der Lunation. 1905. D.

MARRS, C. E. (Author.) Bacteriology and the Bacteriological Laboratory. O.

MARYLAND HISTORICAL SOCIETY. Archives of Maryland. Baltimore, 1905.


Titres et Traités Scientifiques. 1905. Q.

MASSACHUSETTS, BUREAU OF STATISTICS OF LABOR. Cotton Manufacturers in Massachusettts and the Southern States. Boston, 1905. O.

MASSACHUSETTS, COMMONWEALTH OF. The Acts and Resolves of the Province of the Massachusetts Bay. Vol. XII. Boston, 1904. Q.

MELCHER, MRS. E. S. AND STEVENS, C. E. Stevens, C. E., Stevens Genealogy. New York, 1904. O.

MELTON, W. F. A Rubbing from the Tomb of Shakespeare.


Melton, W. F. The Preacher's Son. Nashville, 1894. D.

MEXICO, REPUBLIC OF, FOREIGN OFFICE. Seventy-four volumes of works relating to the history and resources of Mexico.

MICHIGAN, UNIVERSITY OF. Twenty-six academic publications.


MIDLAND INSTITUTE. (Birmingham.) Meteorological Observations taken at Edgbaston, 1904.


MONACO, PRINCE ALBERT 1ST DR. (Author.) Résultats des Campagnes Scientifiques. Fasc. 27-29. Monaco, 1904-05. P.

Bulletin du Musée Océanographique de Monaco, nos. 18-33, 33-41. 1904-05. O.

MONFALLET, D. (Author.) Four of his recent publications.

MONTANA HISTORICAL SOCIETY. Contributions to the History of Montana. Vols. IV and V. Helena, 1903-04. O.

MONTAUBAN, UNIVERSITY OF. Twenty-three academic publications.

MONTEVIDEO, UNIVERSITY OF. Anales Montevideo, 1904. O.

MONTPELLIER, UNIVERSITY OF. One hundred and thirty-nine academic publications.

MOORE, C. B. (Author.) Aboriginal Urn-burial in the United States. 1904. O.

MOORE, J. B. (Author.) Brazil and Peru Boundary Question. New York, 1904. O.

MOREHEAD, J. M. (Author.) Address to the Battle Ground Oak at Old Guilford Courthouse. Greensboro, 1904. D.

MORTON, W. J. (Author.) Memoranda Relating to the Discovery of Surgical Anaesthesia. 1905. O.

MURPHY, E. G. (ed.) Conference for Education in the South. 7th Session. New York, 1904. O.
Gifts to the Library

MURRAY, DAVID. One hundred and twenty-six volumes of works relating to Japan. Two cases containing Japanese objects of interest.

MUSTARD, W. P. (Author.) Classical Echoes in Tennyson. N. Y., 1904. D.

NANCY, UNIVERSITY OF. Sixty-three academic publications.


NEW JERSEY STATE LIBRARY. Archives. Three vols. 1901-03. Q.

NEW MEXICO, LEGISLATIVE ASSEMBLY. Acts, thirty-sixth session. Santa Fe, 1905. Q.

NEW SOUTH WALES GOVERNMENT. Report of Commissioners on Education. Sydney, 1903. F.

NEW YORK STATE LIBRARY. Eighty-two documents. Thirty-four miscellaneous volumes.

NOBLE, C. P. (Author.) Three recent publications. Philadelphia, 1904. Q.

NOBLE, J. (Author.) Seven recent publications. Records of the Court of Assistants of the Colony of the Massachusetts Bay, 1630-1692. Boston, 1901-04. 2 vols. Q.

OSLER, W. (Author.) Acquainmitas, with Other Addresses. Philadelphia, 1904. Q.

PARIS, UNIVERSITY OF. Ecole Supérieure de Pharmacie Centenaire de l'Ecole Supérieure de Pharmacie, 1843-1903.

PARIS, UNIVERSITY OF, FACULTÉ DE DROIT. Two hundred and seventy-eight academic publications.

PARIS, UNIVERSITY OF, FACULTÉ DES LETTRES. One hundred and twenty-four academic publications.

PARIS, UNIVERSITY OF, FACULTÉ DE MEDICIN. Six hundred and six academic publications.

PENNSYLVANIA STATE LIBRARY. Twenty-eight official publications.

PENNSYLVANIA, UNIVERSITY OF. Publications for the year.

PETERS, J. E. (Author.) The Nippur Library. O.

PHILADELPHIA, MAYOR OF. (John Weaver.) First Annual Message. Philadelphia, 1904. 3 vols. Q.

PHILIPPINE CIVIL SERVICE BOARD. Manual of Information relative to the Philippine Civil Service. Manila, 1904. Q.

POITIERS, UNIVERSITY OF. Seventeen academic publications.


PRINCETON UNIVERSITY LIBRARY. Littmann, E. A., List of Arabic Manuscripts. Princeton, 1904. Q.

PROVIDENCE: RECORD COMMISSIONERS. The Early Records of the Town of Providence, Vol. XVIII. Providence, 1904. Q.


Robertson, C. G. (ed.) Select Statutes, Cases and Documents to Illustrate English Constitutional History. N. Y., 1904. Q.

PYFHERDEN, O. Exposition Internationale du Petit Outillage. Gand, 1904. Q.

RENNEK, IRA. Thirty-one miscellaneous publications.

RENNEK, UNIVERSITY OF. Twenty-eight academic publications.

RICHARDS, R. C. (Author.) On the Proper Handling of Freight Traffic. 1904. Q.

RIO DE JANEIRO, BIBLIOTHECA NACIONAL. Four works on Brazilian affairs.

ROBBINS, R. C. (Author.) Poems of Personality. Cambridge, 1904. D.

ROGERS, H. J. Twenty Monographs on “Education in the United States.”

ROWLAND, R. MILLER, J. Metaphysics or the Science of Perception. New York, 1904. D.

ST. LOUIS, CITY REGISTER'S OFFICE. The Mayor's Message. St. Louis, 1905.
Sampaio, José P. (Author.) ThéorieExacte et Notation Finale de la Musique. Porto, 1902. O.

Sargent, F. H. Mary Elizabeth Sargent. D.


Schneider, O. C. Chicago's Schiller-Gedenkfeier Souvenir. Chicago, 1905. O.


Scott, O. His photograph and an autograph copy of his poem entitled, "If Only the Dreams Abide," received through Mr. W. F. Melton.


Sewanee University Press. Sternberg, H. E., Baron Speck v. American and German University Ideals. Sewanee, 1904. O.


Sherman, F. D. His photograph and an autograph copy of his poem entitled, "Dies Ultima," received through Mr. W. F. Melton.

Siam Royal Commission. The Kingdom of Siam; ed. by A. C. Carter. New York, 1904. D.


Zielinski, T., Das Clauselgesetz in Ciceros Rolen. Leipzig, 1904. O.

Candel, J., De clausulis a sedulio in eis libris qui inscribuntur Psalms opus antiquita. Tolosae, 1854. Q.

Cholmeley, R. J., (ed.) The Hylls of Theocritus. London, 1901. O.

Solar Physics Observatory. Lockyer, Sir N., On the Temperature Classification of Stars, No. 2. Q.

South Australia, Department of Mines. A Short Review of Mining Operations. Adelaide, 1904. O.

Straus, O. S. (Author.) The United States and Russia. O.

Sykes, F. H. (Author.) Syllabus of a Course on English Literature in the Nineteenth Century. New York, 1904. O.


Tingle, J. B. Twelve pamphlets on chemical topics by S. F. Acree. Four miscellaneous volumes.

Toulouse, University of. One hundred and thirteen academic publications.


Turner, L. McK. (Author.) Quartz from the Uplanda, Piermont, 1905. O.


Uruguay, Republic of. (Through Prudenco de Maruguindo, Consul General for Uruguay, Baltimore.) Eighteen miscellaneous books and pamphlets relating to Uruguay.

Vasconcellos, J. L. de. (Author.) Three recent publications.


Vorzel, T. (Author.) Feuerbestattung oder Erdbeigrabnis? Brooklyn, 1904. O.
Gifts to the Library

VON LINGEN, G. A. The publications of the Geological Survey of the German Empire in continuation of previous gifts.


WALKER, J. B. (Author.) New Hampshire's Five Provincial Congresses. Concord, 1903. O.

WALLIS, C. S. (Author.) The Elwoods. London. D.


WILLIAMSON, H. C. (Author.) Two of his recent publications.

WISCONSIN, University of. Twelve academic publications.

WOODHEAD, H. (Author.) The First German Municipal Exposition held in Dresden in 1903. Q.

WORCESTER FREE PUBLIC LIBRARY. Green, B. S. Andrew Haswell Green. Worcester, 1904. Q.

WÜRZBURG, University of. Academic publications for the year.

WYATT, J. B. N. Two hundred and fiftieth Anniversary of the Settlement of Cambridge, Mass. Cambridge, 1881. Q.

WYETH, J. A. His photograph and an autograph copy of his poem entitled, "My Sweetheart's Face," an Engraving of Dr. J. Marion Sims, with his autograph and a bibliography of his works.

YALE UNIVERSITY. Academic publications for the year.

Reports and other current publications have been received from the societies and institutions named below. The list does not cover reports, catalogues, and other publications received in regular exchange.

American Bible Society; American Board of Commissioners for Foreign Missions; American Climatological Association; American Institute of Mining Engineers; American Irish Historical Society; American Laryngological Association; American Laryngological, Rhinological and Otological Society; American Mathematical Society; American Museum of Natural History; American Scenic and Historic Preservation Society; Army War College; Association of Collegiate Alumni; Baltimore and Ohio Railway Company; Baltimore Chamber of Commerce; Belgium, Royal Observatory; Belleville Public Library; Black Hills Mining Men's Association; Boston Athenæum; Boston Board of Overseers of the Poor; Boston City Auditor; Boston, City Registry Department; Boston, Executive Department; Boston, Museum of Fine Arts; Boston Port and Seamen's Aid Society; Boston Public Library; Boston School Committee; Boston, Schoolhouse Department; British Association for the Advancement of Science; Brooklyn Institute of Arts and Sciences; Buenos Aires, Direction General de Estadística; Buffalo Public Library; California, Attorney-General; Canada, Geological Survey; Carnegie Museum; Central Conference of American Rabbis; Charity Organization Society (Baltimore); Chicago Civil Service Commission; Chicago Historical Society; Chicago Public Library; Chicago, Special Park Commission; Cincinnati Chamber of Commerce; Cincinnati Museum Association; Cincinnati Public Library; Cleveland Public Library; Colorado Historical Society; Columbus Public School Library; Connecticut, Bureau of Labor Statistics; Connecticut State Library; Dayton Public Library; District of Columbia, Health Department; Enoch Pratt Free Library; Essex Institute; Field Columbian Museum; Forbes Library; Friends' Free Library (German-town); Grand Rapids Public Library; Guy's Hospital; Haverhill Public Library; Hawaiian Evangelical Association; Holland, Minister of Colonies; Illinois, Bureau of Labor Statistics; Illinois State Historical Library; India, Government of; Indian Rights Association; Indiana State Medical Association; Iowa Academy of Sciences; Iowa Geological Survey; Ireland, Royal Academy of Medicine; Jamaica, Department
The university is indebted, as in previous years, for many and valuable gifts from the departments at Washington.
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REPORT

TO THE TRUSTEES OF

THE JOHNS HOPKINS UNIVERSITY:—

Gentlemen:

I have the honor to submit to you my report for the last academic year, extending from September 1, 1905, to August 31, 1906.

CHANGES IN THE BOARD

Mr. Waldo Newcomer was elected a member of the Board of Trustees at the January meeting, and subsequently appointed a member of the Finance Committee. Mr. Newcomer's election is especially interesting for the reason that he is an alumnus of the University, having received the degree of Bachelor of Arts in 1889. He has held several positions of trust in the financial world of Baltimore, and is now President of the National Exchange Bank in succession to the late Mr. William T. Dixon, who also was a member of the Board of Trustees.

RECENT APPOINTMENTS

The new appointments and promotions in the faculties for the coming year are mentioned below:
In the Philosophical Faculty

To be Professors:

- Charles M. Andrews, Ph. D., History. (Beginning September 1, 1907.)
- Duncan S. Johnson, Ph. D., Botany.
- Harry L. Wilson, Ph. D., Roman Archaeology and Epigraphy.

To be Associate Professors:

- George E. Barnett, Ph. D., Political Economy.
- Caswell Grave, Ph. D., Zoology.
- Herbert S. Jennings, Ph. D., Physiological Zoology.

To be Associates:

- Solomon F. Acree, Ph. D., Chemistry.
- Frank R. Blake, Ph. D., Oriental Languages.
- Joseph C. W. Frazer, Ph. D., Chemistry.

To be Instructors and Assistants:

- Edward W. Berry, Paleontology.
- Knight Dunlap, Ph. D., Psychology.
- Aaron Ember, Ph. D., Hebrew.
- James M. Motley, Ph. D., Political Economy.
- August H. Pfund, Ph. D., Physics.

In the Medical Faculty

To be Associate Professors:

- Thomas McCrae, M. D., Medicine and Clinical Therapeutics.
- Arthur S. Loewenhart, M. D., Pharmacology and Physiological Chemistry.
- William W. Ford, M. D., Bacteriology (also Lecturer in Hygiene).
- Max Brodel, Art as applied to Medicine.

To be Lecturer:

- Rupert Norton, M. D., Forensic Medicine.

To be Associate:

- F. Harry Baetjer, M. D., Surgery (in the department of Actinography).

To be Instructors:

- Richard A. Urquhart, M. D., Pediatrics.
- Edgar R. Strobel, M. D., Dermatology.
- Francis C. Goldsborough, M. D., Obstetrics.
- Robert Retzer, M. D., Anatomy.
- George H. Whipple, M. D., Pathology.
- J. A. English Eyster, M. D., Physiology.
- Arthur D. Hirschfelder, M. D., Medicine.
To be Assistants:

John M. Bergland, M. D., Obstetrics.
Benson A. Cohoe, M. D., Medicine.
Marshal Fabyan, M. D., Pathology.
Henry M. Fitzhugh, M. D., Pediatrics.
John T. Geraghty, M. D., Genito-Urinary Surgery.
Donald R. Hooker, M. D., Physiology.
Henry T. Hutchins, M. D., Gynecology.
Charles W. Larned, M. D., Medicine.
Roger S. Morris, M. D., Medicine.
J. Frank Ortschild, M. D., Surgery (in the Hunterian Laboratory).
H. Lee Smith, M. D., Medicine.
Carl Voegtlin, M. D., Medicine (in the Clinical Laboratory).
Samuel Wolman, M. D., Medicine (in the Clinical Laboratory).
Christian Dencker, M. D., Medicine (Voluntary).
John L. King, M. D., Medicine (Voluntary).
Henry Klien, M. D., Medicine (Voluntary).
John C. Meakins, M. D., Medicine (Voluntary).
H. A. Stewart, M. D., Medicine (Voluntary).

PERSONAL MENTION

Dr. Henry M. Hurd, who has been Superintendent of the Johns Hopkins Hospital since its opening in 1889, and for thirteen years Professor of Psychiatry in the University, presented his resignation of the professorship in May last. The Trustees reluctantly accepted the resignation and voted that he be made Professor Emeritus. It is understood that he will remain a member of the Advisory Board of the Medical Faculty and of its Executive Committee.

The Trustees have elected to a professorship of History Dr. Charles McLean Andrews, of Bryn Mawr College. Dr. Andrews graduated at Trinity College, Conn., in 1884, and was a student and Fellow in this University from 1886 to 1889. In the latter year he received the degree of Doctor of Philosophy, and has since been a member of the faculty of Bryn Mawr College, holding at present the professorship of History. He is the author of numerous
monographs on institutional history and of several noteworthy volumes on English and American history. His duties here will begin in September, 1907.

Dr. Duncan S. Johnson, who has been Associate Professor of Botany since 1901, has been made Professor of Botany. Dr. Johnson graduated from Wesleyan University, Conn., in 1892, and received the degree of Doctor of Philosophy here in 1897. During the year 1896-97 he held a fellowship in Botany, and was during the next four years Bruce Fellow, Instructor, and Associate.

Dr. Harry L. Wilson, Associate Professor of Latin, has been promoted to a professorship of Roman Archæology and Epigraphy. Dr. Wilson is a graduate of Queen's University, Ont., in 1887, and he has been successively a student, Fellow, Instructor, Associate, and Associate Professor in this University since 1893. In 1896 he was made a Doctor of Philosophy. He is spending the year 1906-07 in Rome, as Professor of Latin in the American School of Classical Studies.

Dr. Caswell Grave, who has been connected with the University since 1895, has been made Associate Professor of Zoology. He was graduated in 1895 from Earlham College, and during the next four years he was a student and Fellow of this University, receiving the degree of Doctor of Philosophy in 1899. He was Bruce Fellow in 1900-01, Assistant, 1901-02, and Associate, 1902-06. In May last he was designated by the Board of Public Works as a member of the Shell Fish Commission for the State of Maryland, authorized by an act of the last Legislature. He
is in every way well qualified for this important work. It is interesting to note that the early investigations of Professor Brooks on the development of the oyster have had a marked influence on public opinion, culminating last winter in the passage of the law to promote the cultivation of oysters. It is eminently fitting that one who received his training largely from Professor Brooks and has his entire confidence, should be called upon by the State to act as the scientific member of the Commission charged with carrying out the provisions of the law.

Dr. Herbert S. Jennings has been elected Associate Professor of Physiological Zoology, a subject that is now receiving much attention in this country. Dr. Jennings received the degree of Bachelor of Science from the University of Michigan in 1893 and the degrees of Master of Arts and Doctor of Philosophy from Harvard University in 1895 and 1896. He was an Assistant Professor in the University of Michigan from 1900 to 1903 and in the University of Pennsylvania from 1903 to 1906. He has contributed freely to the current scientific journals; he is an Associate Editor of the Journal of Comparative Neurology and Psychology and of the Journal of Experimental Zoology, and the author of a book on The Behavior of the Lower Organisms, published by Columbia University as No. X of its Biological Series. Dr. Jennings is the most prominent advocate of the opinion that the organic machinery of living beings is far more important, as a factor in determining behavior under given conditions, than the external stimulus, as opposed to those who regard the movements of organisms as "tropisms" which are the simple and immediate effects of the stimuli.
Dr. George E. Barnett, who has been connected with the University as student and teacher since 1897, holding a fellowship in 1899-1900 and receiving the degree of Doctor of Philosophy in 1901, has been made Associate Professor of Political Economy. Dr. Barnett has made an important study of the later history of State Banking in the United States. During the past three years he has been actively identified with the Economic Seminary in the investigation of American Trade Unionism. He has compiled a "Trial Bibliography of American Trade Union Publications" and in association with Professor Hollander has edited a volume of "Studies in American Trade Unionism."

By invitation of the Mexican Government, Professor Baldwin spent some time in inspecting the educational institutions of that country and counselling the authorities in matters of higher education.

During the year Professor Hollander continued, with the approval of the University authorities, to act as Special Agent of the United States in regard to affairs in Santo Domingo. At the instance of the Department of State he served as financial adviser of the Dominican Republic in the negotiations carried on during the summer for the adjustment of the Dominican debt.

JOHNSON SCHOLARSHIPS

In my last report I called your special attention to the first holders of the Johnston Scholarships, Doctors Solomon Farley Acree, Henry S. Conard, and Isaac Woodbridge Riley, as fair examples of the type of young men that the
Report of the President

Academic Council consider worthy of appointment. At the close of the academic year, Messrs. Acree and Conard resigned, Dr. Acree being appointed an Associate in Chemistry in this University and Dr. Conard becoming Professor of Botany and Bacteriology in Iowa College. The places thus left vacant were filled by the appointment of Dr. Ralph S. Lillie and Dr. S. Grant Oliphant. A statement concerning the attainments of the two new appointees is appended:

Ralph Stayner Lillie (James Buchanan Johnston Scholar) is a graduate of the University of Toronto, as a Bachelor of Arts, in 1896. He spent the year 1896-97 in the University of Michigan and was a Fellow in Zoology in the University of Chicago for three years, receiving the degree of Doctor of Philosophy in 1901. During the Spring Quarter of 1901 he was Assistant in Embryology in the University of Chicago, Assistant and Instructor in Physiology in the Harvard Medical School, 1901-02 and 1905-06, and Instructor and Adjunct Professor in the University of Nebraska 1902-05. Since 1901 he has given instruction during the Summer months in the Marine Biological Laboratory at Wood's Holl, Mass. The Winter of 1904-05 was spent at the Zoological Station at Naples as a Research Assistant of the Carnegie Institution. He has published a number of papers bearing on his special line of work, among them the following: Structure and Development of the Nephridia of Arenicola Cristata Stimpson; Oxidative Properties of the Cell Nucleus; Relation of Ions to Ciliary Movement; Action of Salt-Solutions on Ciliary and Muscular Movements in Arenicola Larvae; Relation between Contractility and Coagulation of Colloids in the Ctenophore Swimming Plate; Physiology of Cell-Division—Experiments on the Conditions determining the Distribution of Chromatic Matter in Mitosis.

Samuel Grant Oliphant (Henry E. Johnston Scholar) was graduated at Princeton University as a Bachelor of Arts in 1891.
He was Professor of Greek in Parsons College, Iowa, from 1891 to 1895, Instructor in Phillips Exeter Academy, 1895 to 1899, and Professor in Washington and Jefferson College, 1899 to 1902. Since 1902 he has pursued advanced studies in Sanskrit and Comparative Philology, Greek, and Latin in this University, holding a fellowship from 1904 to 1906. He has also assisted Professor Bloomfield in the work of instruction. In June 1906 he received the degree of Doctor of Philosophy, submitting as his dissertation a study of the Vedic Dual.

COMMENORATION DAY

The annual exercises of Commemoration Day were held in McCoy Hall on the twenty-second of February. Addresses were delivered by Professor L. F. Barker and the Honorable Charles J. Bonaparte, Secretary of the Navy. These addresses were printed in the University Circular for February 1906. Two young men were advanced to the degrees of Doctor of Philosophy and Doctor of Medicine respectively. The general Alumni Association held its annual meeting just before the morning exercises, and the annual banquet took place in the evening at the Merchants' Club.

COMMENCEMENT

Degrees were conferred at the public exercises of Commencement, in the Academy of Music, on the afternoon of Tuesday, June 12. Forty-eight Bachelors of Arts, thirty-one Doctors of Philosophy, and eighty-four Doctors of Medicine received diplomas. The chief address was given by Dr. Bliss Perry, Editor of the "Atlantic Monthly." In the evening the usual reception to the graduates and their friends was held in McCoy Hall.
PRIZES

The John Marshall Prize, which consists of a bronze likeness of Chief Justice Marshall, was given this year to John Spencer Bassett, (Ph. D., 1894), in recognition of his recent work entitled "The Federalist System, 1789–1801." The prize is awarded annually to that graduate of the University who is considered to have made within the year the most valuable contribution to historical or political science. The recipients in past years are named below:

1892. Henry C. Adams, Ph. D. 1893. Charles D. Hazen, Ph. D.
1892. Charles H. Levermore, Ph. D. 1899. Jacob H. Hollander, Ph. D.
1892. John M. Vincent, Ph. D. 1900. James M. Callahan, Ph. D.
1892. Woodrow Wilson, Ph. D. 1901. John H. Latané, Ph. D.
1895. Albert Shaw, Ph. D. 1904. Davis R. Dewey, Ph. D.
1896. Westel W. Willoughby, Ph. D. 1905. Herbert Friedenwald, Ph. D.
1897. J. Franklin Jameson, Ph. D. 1906. John S. Bassett, Ph. D.

The Tocqueville Medal, the gift of the Baron Pierre de Coubertin, of Paris, commemorating the name of the illustrious Frenchman, Alexis de Tocqueville, was awarded to Ormond Willson Hammond, Jr. (A. B., 1906), for his essay on "Socialism and Democracy under the Second Republic." It is offered by the University to that student who shall write the best essay on some subject illustrating any phase of French History, political or social, from 1815 to 1890, or a review of some important historical work published in France since 1890. The medal has been awarded to the following young men:

1900. James Edward Routh, Jr., A. B.
1903. Harry King Tootle, A. B.
1904. Gerald Benjamin Rosenheim, A. B.
1905. John Francis Cremen, A. B.
1906. Ormond Willson Hammond, Jr., A. B.
The various serial publications of the University have appeared as usual. The list now includes the following journals:

The American Journal of Mathematics, in its twenty-eight volume; the American Journal of Philology, in its twenty-seventh volume; the American Chemical Journal, in its thirty-sixth; Studies in Historical and Political Science, of which the twenty-third series is completed, and several extra volumes have been issued; and Modern Language Notes, of which twenty-one volumes are nearly complete. The Contributions to Assyriology, the Memoirs from the Biological Laboratory, and the Journal of Terrestrial Magnetism have also been issued under the editorial direction of university professors.

ACADEMIC CELEBRATIONS

The University has been represented at several important academic gatherings. At the commemoration of the four hundredth anniversary of the founding of the University of Aberdeen, Dr. Kelly was our delegate; Professor Haupt represented us at the celebration of the two hundredth anniversary of the American Philosophical Society; President Remsen at the inauguration of Dr. Charles L. Smith as President of Mercer University, Georgia, at the inauguration of Dr. E. J. James as President of the University of Illinois, and at the annual convention of the Association of American Universities, held in San Francisco; Dr. Ballagh at the seventy-fifth anniversary celebration of the
University of Alabama; Professor Hollander at the quarter-centennial celebration of Tuskegee Institute; and Dr. E. E. Reid, an alumnus, at the inauguration of Dr. Houston as President of the University of Texas.

GIFTS AND BEQUESTS

Professor Josiah Royce, of Harvard University, one of our most distinguished graduates, who lectured before our students of philosophy in January, has presented the sum of two hundred and fifty dollars, the amount of his honorarium, for the purchase of books pertaining to the History of Philosophy, particularly American Philosophy. The collection is to be designated the "Royce Collection" and will be appropriately labelled and installed in the Philosophical Seminary room.

Several Baltimore gentlemen gave the University six hundred dollars to pay the stipend of a fellow in the Semitic Languages during the year 1905-06.

We have received from the Executive Committee of the Wallis Memorial Association the sum of $1361.99, for the establishment of "The Severn Teackle Wallis Memorial Fund," the income to be bestowed from time to time as a prize upon a student of this University for an essay on some subject connected with Spanish literature or history, or for some original work done in either of these subjects.

Mrs. Joseph Howland, of Newport, R. I., has presented several interesting medals commemorating historical events.

Mr. Henry Sonneborn has continued to make important additions to the Sonneborn Collection of Jewish Ceremonial Objects.
Mr. Francis M. Jencks, a member of the Board of Trustees, has presented to the library a valuable collection of books on the subject of Teratology.

The University has received from the General Alumni Association a gift of nearly fourteen hundred dollars, which has been added to the sum already received from the Association for the endowment of an "Alumni Scholarship"; this fund now amounts to about $2400.

Mr. Abram G. Hutzler has continued for a third year his gift of five hundred dollars for the purchase of economic books; and the sum of twelve hundred and fifty dollars, to aid in the study of labor organizations, has been received from the source which has for three years past made provision for this work.

PUBLIC LECTURES AND ADDRESSES

The second course of lectures on the Herter foundation was given October 4 and 5, by Professor Hans H. Meyer, M. D., Director of the Pharmacological Institute of the University of Vienna, on subjects relating to pharmacology and physiology.

The Percy Turnbull Memorial Lectures on Poetry, were given by Dr. Henry van Dyke of Princeton, March 19-27. The subject was The Service of Poetry, and there were six lectures.

Professor George W. Knox, D. D., of the Union Theological Seminary, New York, gave six lectures, November 7-17, on the Religions of Japan.

Professor Eugen Kühnemann, of the University of Bonn,
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lectured November 2 and 3, on Gerhart Hauptmann and on The Faust Idea in the Centuries.

William Poel, Esq., of London, founder of the Elizabethan Stage Society, gave an illustrated lecture on The Elizabethan Play House, November 22.

Dr. James Schouler gave his annual course of four lectures on American History, March 8-13; his subject being Ideals of the American Republic.

Associate Professor H. L. Wilson, conducted on Saturday mornings during the session three courses of twenty lessons each in Latin and one in Greek for persons not connected with the University; and Dr. T. C. Foote, conducted a course of twenty lessons in the study of the Bible, the class meeting in two sections, Friday afternoons and Saturday mornings.

A series of public lectures by members of the Faculty was given between October 31 and March 15, the lecturers and their subjects being as follows: Professor Bloomfield, on Recent Archæological Discoveries in Chinese Turkestan; Associate Professor Wilson, on Roman Epitaphs; Professor Hollander, on Santo Domingo; Professor R. W. Wood, on Electrical Discharge in Gases; Professor Stratton, on Experiments on the Mind—their character and value; Professor Ames, on Modern Problems in Physics; Professor Smith, on The Poet Ovid; Professor Reid, on Glaciers; Professor Bright, on The External Form of English Poetry.

Professor Baldwin gave, on Saturday mornings, February 17-March 24, six lectures on Educational Psychology for teachers, about two hundred persons being in regular attendance.
Professor Josiah Royce delivered a course of ten lectures on Aspects of Post-Kantian Idealism before the members of the department of philosophy and other persons, in Levering Hall, January 29–February 10.

Professor H. F. Reid gave a lecture on Earthquakes, Friday afternoon, May 22.

Lectures, under the auspices of the Archaeological Institute of America (Baltimore Society), were given by Rev. John P. Peters, Ph. D., on the Latest Discoveries in Babylonia, December 8; Professor Harold N. Fowler, on Excavations in Crete, January 30; Dr. Alfred M. Tozzer, on Some Aspects of Archæological Work in Central America, March 1.

A course of ten lectures on the Bible, arranged by the Young Men's Christian Association of Baltimore, was given before a large audience on Monday evenings, January 10–March 12, by Rev. Wilbert W. White, D. D., President of the Bible Teachers' Training School of New York.

Under the auspices of the Municipal Art Society of Baltimore, lectures were given as follows: Mr. J. B. Noel Wyatt, of Baltimore, on Architecture, its True Significance, January 17 and 18; Mr. Lorado Taft, of Chicago, on American Sculpture, February 13; Mr. Frank Miles Day, of Philadelphia, on the City Beautiful and Convenient, March 16.

Under the direction of the State Board of Health, a series of nine lectures on Milk was delivered Tuesday evenings, February 20 to April 25; and May 7-14 an exhibition presenting the hygienic, dietetic, economic, and technical relations of milk was conducted.

A lecture on Missionary Work in the Soudan was given April 2 by Rev. Dr. Karl W. Kumm, of London.
A lecture on the Yellowstone National Park was delivered April 16.

Public meetings have been held as follows:

For a discussion of the "Mosquito Problem," November 1; Baltimore Society of the Archaeological Institute of America, November 9; Maryland Branch of the National Red Cross, November 14; Maryland State Horticultural Society, December 6 and 7; Federated Charities of Baltimore, December 12; American Historical Association, American Economic Association, American Political Science Association, and Bibliographical Society of America, December 26-29; Maryland Association for the Prevention and Relief of Tuberculosis, January 25; Maryland Child Labor Committee, February 10; Maryland Prisoners' Aid Association, February 14; in the interest of the bill before the State Legislature regulating the labeling of patent medicines, February 17; Consumers' League of Maryland, February 26; address by Dr. Luther H. Gulick of New York, March 23, under the auspices of the Children's Playground Association and the Arundell Club; lecture before the Designers and Artisans' Club of Baltimore, by Mr. Frederick A. Whiting, of Boston, March 29; lecture by Capt. Charles Lynch, Surgeon, U. S. A., and address by Miss M. T. Boardman, under the auspices of the Maryland Branch of the National Red Cross, April 5; address before the Social Service Club of Baltimore, by Miss M. T. Boardman, April 23; Medical and Chirurgical Faculty of Maryland, April 24-26 (several sessions); Maryland Civil Service Reform Association, May 21, with addresses by Secretary Taft and Secretary Bonaparte.
STATE AID

The Maryland Legislature at its last session renewed the annual appropriation of twenty-five thousand dollars, which the University has received for a number of years past.

CHANGES IN COLLEGIATE INSTRUCTION

Your attention is called to some important changes that have been made during the year in the plans of the college, or undergraduate, department. The University maintains, in addition to the graduate department for which it is best known, an undergraduate, or collegiate, department, especially for the benefit of residents of Baltimore and Maryland. Others are, of course, welcome, and there are always some students from other states enrolled among our undergraduates, but the number is necessarily small under our present conditions. It will be remembered that the first president and the first board of trustees held that emphasis should be laid on the graduate work of the University. It is this work which has given the institution its reputation and enabled it to exert a very wide influence upon higher education in this country and, to some extent, in other lands. The result would unquestionably have been entirely different if the decision at the outset had been to take up collegiate work alone. There was no great demand for an additional college. Colleges were widely distributed and within comparatively easy reach of young men in nearly every neighborhood. But there was real need of an institution for post-collegiate or post-graduate work. Students were at that
time in large numbers seeking opportunities for this kind of work abroad, and there was not a single college or university in this country that made special provision for such students. While then it was decided to try the experiment of providing for advanced students, and the results of the experiment have shown the wisdom of the decision, it is not to be forgotten that provision was made at the same time for college students. Many of the leading men of this community hold the bachelor's degree of this University, and, judging of the future by the past, it appears to be safe to predict that the time will come when the majority of the leading professional men and a fair proportion of the business men of the state will be alumni of the Johns Hopkins University. This is much to be desired, for the life of the University will always largely depend upon the sympathy and help of the people of this city and state. For these and other reasons the maintenance of an undergraduate department has always been held to be important and there is no desire to neglect the work of that department. On the contrary there is every desire to make that work as good as possible. This subject has engaged our earnest attention during the past year, and certain changes in our plans have followed a careful study of the problem before us. These changes are described in a general way in the report of the Dean of the College Faculty, Dr. Edward H. Griffin, to which you are respectfully referred. For the sake of emphasis I quote here a paragraph of that report:

"The most important question with which the committee had to deal was that of the period of residence. The original plans, adopted at the founding of the University, established a three years' course, in the case of those candidates for the degree of
Bachelor of Arts who should fully absolve at entrance the requirements for matriculation, these requirements being made, in view of the shortened period of attendance, considerably higher than those of other institutions. The advanced standard of matriculation proved a source of embarrassment. Many applicants were unable to meet it, and were received, if at all, only as "candidates for matriculation," under the disability of "conditions" more or less serious. About one-half of those entering each year have been thus burdened. As a means of relief, a scheme of studies corresponding, in general, to the freshman year of other colleges was organized, a few years ago, in order that persons possessing the ordinary college preparation might be admitted, free of drawbacks, and might complete their matriculation under instruction provided by the University. This plan only partially fulfilled its purpose. Those availing themselves of it were not enrolled in the several "groups," but in what was termed the "Preliminary Year," and were, not unnaturally, looked upon as preparatory students rather than full members of the University. Moreover, the normal length of residence being understood to be three years, many—quite without reason—felt it to be discreditable to remain longer. It was apparent that the only effective way of dealing with the situation was through a rearrangement of the program of studies on the basis of a four years' residence, thus making possible a reduction of the matriculation requirements to the standard maintained at other institutions. It was felt to be important to do this, however, in such a way as not to take away the privilege, enjoyed from the first, of obtaining the bachelor's degree in three years. The regulations which have been adopted secure this opportunity to all who are justified in claiming it. A student may (1) anticipate certain of the courses by special examination at entrance; (2) present himself, at the beginning of an academic year, for examination in a single course, provided the Committee on Admission, being satisfied that the student can obtain competent instruction, has authorized him, in advance, to prepare this course during the summer vacation; (3) take, under certain conditions, in any year of residence except the first, a greater number of
Report of the President

courses than is called for in the program; (4) offer nineteen courses for graduation instead of twenty, provided a certain standing has been maintained, each year, since entrance. It is expected that, under the new arrangements, the length of residence, for the majority, will be four years, but that many will obtain graduation in shorter time. One of the best features of the undergraduate instruction at the Johns Hopkins has been the liberty afforded each individual to push forward as rapidly as his attainments and abilities would allow, unrestrained by the requirements of the ordinary class system; this liberty is fully preserved."

It is hoped and believed that the changes that have been made will make the collegiate work better and more attractive, and that increasing numbers of the young men of Baltimore and Maryland will follow this work.

NEEDS OF THE MEDICAL DEPARTMENT

There is urgent need for improved and increased accommodations for the work in pathology in the medical school. The pathologists have from the beginning occupied a building owned by the hospital and rented to the University. While it has been fairly satisfactory, a careful examination of the present situation will show that the building is now inadequate. There should be a new building erected on the grounds belonging to the medical department, where are the three buildings known as the Women's Fund Memorial Building, the Physiological Building, and the Hunterian Laboratory. This should provide ample room for the work in pathology, and a part of it should be so constructed as to supply fire-proof quarters for the library. The Dean of the Medical Faculty, Dr. William H. Howell, refers to this need in his report in these words:
Our library is increasing in importance and in service with each succeeding year. The appropriation made yearly for its maintenance is insufficient to meet all the just demands of our students and staff, and the rooms assigned to it, while comfortable and practical, might be greatly improved. It is to be hoped that before long we shall be able to provide appropriate fire-proof quarters for this collection, and to obtain by gifts or otherwise a more adequate income for its maintenance and extension.

In this connection I call special attention to the noteworthy gifts by Messrs. Francis M. Jencks and William A. Marburg to the medical library of the University. It is proposed to have a meeting at the medical school early in January, when official notice of these two gifts will be publicly taken.

Homewood

There is no one subject that has been more frequently discussed during the past year by the friends of the University than Homewood. For the state of the problem at the beginning of the last academic year I can not do better than refer to my last annual report. After showing what had already been accomplished by way of preparation for the future, I used these words:

"If the problem were presented to us to-day to transfer the work of the University from its present site to Homewood, the buildings that would actually be needed are a library, a building devoted to class-rooms, a physical laboratory, a chemical laboratory, a geological laboratory, a biological laboratory, Levering Hall, a gymnasium, and a dormitory." . . . For the actual needs of the University, then, seven or eight buildings would be called for at the outset. I feel sure that these could be provided for a sum between $750,000 and $1,000,000. I do not think it
would be wise to move until at least the smaller sum is available for buildings."

The general situation has not changed. Work has been in progress on the athletic grounds under the direction of the Athletic Association, and, though there have been unexpected delays, the grounds are approaching completion and will no doubt be ready for use as soon as communication with the city by means of trolley lines is established. We have reason to believe that this will be not later than the autumn of 1907.

The Advisory Board, consisting of Mr. Walter Cook, of New York, Mr. Frederick Law Olmsted, Jr., of Brookline, Mass., and Mr. J. B. Noel Wyatt, of Baltimore, has been engaged permanently to aid us in everything pertaining to the development of Homewood. This Board has recently held an important meeting and, as a result, has made recommendations to the Board of Trustees looking to the carrying out of certain lines of work during the present year. It need only be said now that it is the purpose of those who have the responsibility for the work to push it forward as rapidly as the means at our command will permit, so that when the money is provided for the necessary buildings we may be prepared to move with as little delay as possible.

Respectfully submitted,

IRA REMSEN.

December 26, 1906.
REPORTS ON THE INSTRUCTION IN THE
CHIEF BRANCHES OF STUDY

Prepared by the Principal Instructors in the Several Departments

Mathematics

Professor Morley gave the following courses:

1. Vector Analysis. Twice weekly, first half-year.
   Starting from the analysis of planar displacements, the course proper
   began when the thing displaced is a point. The course was an introduction
   to and development of some memoirs of the lecturer.

2. Theory of Functions. Twice weekly, second half-year.
   The Riemann surfaces, as exhibiting algebraic correspondence, were
   explained, and the elliptic case was taken up in detail. Weierstrass's
   theory of elliptic functions concluded the course.

3. Higher Geometry. Two hours weekly.
   The course began with projective space-geometry, but the questions
   arising in course 1 were somewhat imperative, and were in this course gone
   into more deeply with the help of the more advanced students.

4. The reading class took up Quaternions and the study of the continum.
   The students in rotation presented the subjects consecutively.

Dr. Cohen gave the following courses:

1. Elementary Theory of Functions. Twice weekly, through the year.
   This course had the character of an introduction to the Modern Theory
   of Functions. The greater part of the time was devoted to the study of
   properties of analytic functions of the complex variable, the ideas of Cauchy,
   Riemann, and Weierstrass being equally developed. Harkness and Morley's
   Analytic Functions and Burkhardt's Theorie der Analytischen
   Functionen were used as a basis.

2. Calculus of Variations. Three times weekly, first half-year.
   After a hurried survey of the older theory the modern theory as developed
   by Weierstrass, Kruser, Hilbert and others was taken up in detail. The
   entire time was devoted to the study of the variation of simple integrals.
   Bolza's Lectures on the Calculus of Variations was used as a basis.

3. Dynamics and its Differential Equations. Three times weekly, second
   half-year.
After a detailed discussion of the motion of solid bodies and systems of bodies, the study of the general equations of Dynamics and their integration was taken up. A large number of illustrative problems were worked out in this course.

Dr. Coble gave a course on the Theory of Finite Groups.

During the first half-year, the abstract theory of finite groups as exemplified in the substitution groups was considered. A short account of the Galois theory of equations was given and applied to the solution of the general equation of the fifth degree. In this connection the Form-Problem of Klein served as an introduction to the collineation groups which were treated in some detail in the second half-year. The course closed with a brief introduction to the linear groups in finite-number fields.

Dr. Fabian Franklin gave a short course on Probability during the second half-year.

The Seminary met weekly. From outside addresses were given by Professor Royce, of Harvard, Professor Eiesland and Dr. Sisam, of Annapolis, and Mr. Hinton, of Washington.

The American Journal is in its twenty-eighth volume. A portrait of Georg Cantor appears in the January number.

The usual undergraduate courses were given by Professor Hulburt, Dr. Cohen, and Dr. Coble.

FRANK MORLEY,
Professor of Mathematics.

Physics

The Physical Laboratory has been open daily during the year for the work of advanced and undergraduate students. Regular courses of lectures have been given, and meetings have been held weekly for the reading and discussion of the current journals. The Physical Seminary has also met once each week, and the list of papers presented is given below.

The regular courses of instruction were as follows:

By Professor Ames:
1. Physical Seminary. One hour weekly, through the year.
2. General Physics: Electricity and Magnetism. Four hours weekly, through the year.
3. General Physics: Minor Course. Three hours weekly, through the year.
4. Journal Meeting. One hour weekly, through the year.

By Professor Wood:
1. Physical Optics. Three hours weekly, through the year.
2. Recent Progress in Physics. Occasional lectures, through the year.
By Professor Bliss:
1. General Physics: Major Course. *Four hours weekly, through the year.*

By Dr. J. B. Whitehead:
1. Applied Electricity: Advanced Course. *Two hours weekly, through the year.*
2. Applied Electricity. *Two hours weekly, through the year.*

By Dr. James Barnes:
2. Reviews in General Physics: Minor Course. *Weekly, through the year.*

By Mr. L. E. Jewell:
The Elements of Physical Astronomy. *Weekly, through the year.*

By Mr. S. J. Allen:

By Mr. H. E. Ives:
The Theory and Practice of Photography. *Ten lectures and practical exercises.*

The laboratory work for undergraduates has been under the direction of Professor Bliss, with the assistance of Dr. Whitehead, Dr. Barnes, Mr. Hoxton, and Mr. Pfund. The work in Applied Electricity has been directed by Dr. J. B. Whitehead, and that of the astronomical observatory by Mr. L. E. Jewell. The advanced work and the original investigations have been under the direction of Professors Ames and Wood.

In the Physical Seminary, papers on the following subjects were read and discussed:

Professor Ames—Mechanism and Laws of Radiation.
Professor Bliss—Optical Resonance.
Dr. Whitehead—Gravitational and Electrical Quantities.
Dr. Barnes—Absolute Measurement of Wave-length.
Mr. Jewell—Rowland's Dividing Engines; Peculiarities of Gratings.
Mr. A. H. Pfund—Dispersion Formulae; Metallic Reflection.
Mr. L. O. Hoxton—Solar Radiation; Measurement of Temperature.
Mr. E. P. Hyde—Talbot's Law in Photometry.
Mr. S. J. Allen—Pressure due to Light; Verification of Planck's Law of Radiation.
Mr. J. A. Anderson—Spectra of Sunspots, the Corona, etc.; Spectroscopic Reversals.
Mr. T. S. Elston—Laws of Spectra; Efficiency of Spectroscopes.
Mr. F. L. Cooper—Types of Stellar Spectra; Radiation in Absolute Measure.
Mr. T. S. Carter—Temperature of the Sun; Verification of Stefan's Law.
Mr. D. V. Guthrie—Selective Reflection; Verification of Kirchhoff's Law.
Mr. L. O. Grondahl—Spectroscopic Apparatus.
Mr. C. M. Kilby—Fluorescence and Phosphorescence.
Mr. H. E. Ives—Luminescence.
Mr. W. W. Strong—Lyman's False Spectra.
Mr. H. C. Rentschler—Zeeman Effect.

Sixteen advanced students have followed Physics as their principal subject. Four of these have absolved the requirements for the degree of Doctor of Philosophy; their names and the titles of their dissertations are as follows:

S. J. Allen—The Velocity and Ratio $\frac{e}{m}$ for the Primary and Secondary $\beta$ Rays of Radium.
T. S. Elston—The Absorption and Fluorescent Spectra of Anthracene Vapor.
E. P. Hyde—The Verification of Talbot's Law as Applied to the Rotating Sectored Disk.

In April the University Circular was devoted to a series of articles describing the work of the laboratory. The Table of Contents of this Circular was as follows:

The Resonance Radiation or Fluorescence of Sodium Vapor, by R. W. Wood.
Cathode Luminescence of Sodium Vapor, by R. W. Wood.
A New Standard Table of Wave-Lengths, by James Barnes.
Infra-Red Polarization, by A. H. Pfund.
Rest-Strahlen, by A. H. Pfund.
A Simple Photometer, by A. H. Pfund.
Minute Concave Mirrors for Galvanometers, by A. H. Pfund.
The Velocity and Ratio $\frac{e}{m}$ for the Primary $\beta$ Rays of Radium, by S. J. Allen.
The Secondary Radiations caused by the $\beta$ Rays of Radium, by S. J. Allen.
Spectra of Erbium, by J. A. Anderson.
The Absorption Spectra of the Aniline Dyes, by Horace S. Uhler.
The Absorption Spectra of certain Salts as affected by certain other Salts acting as Dehydrating Agents, by Harry C. Jones and Horace S. Uhler.

The Fluorescence of Anthracene Vapor, by T. S. Elston.

Improvements in Diffraction Color Photography, by Herbert E. Ives.

Talbot's Law as applied to the Rotating Sectored Disk, by E. P. Hyde.

Observations made during the Total Solar Eclipse of August 30, 1905, at Camp Dixie, near Guelma, Algeria, by L. E. Jewell.

Velocity of the Cathode Rays, by A. M. Morrison.

The Present Condition of Rowland's Ruling Machines, by J. S. Ames.

Natural Radiation and X-Rays, by J. S. Ames.

Recent Publications in Physics.

Mr. L. E. Jewell has devoted his time during the year to keeping in good condition the dividing engines of the laboratory. A new nut and screw to replace those on one of the old machines have been completed and are now being tested. The usual number of gratings have been ruled.

During the year the local branch of the American Institute of Electrical Engineers has held regular meetings in the laboratory and many interesting papers have been presented.

In April the laboratory was visited by Professor L. A. Lorentz, of the University of Leyden, who made a short address before the students on Physical Theories.

JOSEPH S. Ames,
Professor of Physics and Director of the Laboratory.

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Chemistry

The lecture and class-room instruction in Chemistry which has been given during the past year, is indicated below:

By President Remsen:
The Chemistry of the Compounds of Carbon. Three times weekly, through the year.

Attendance: First half-year, 26; second half-year, 26.

Meetings for reports on the Current Progress of Chemistry. Weekly, through the year.

Attendance: First half-year, 32; second half-year, 32.

By Professor Morse:
Inorganic Chemistry. Twice weekly, through the year.

Attendance: First half-year, 26; second half-year, 26.

By Professor Jones:
Physical Chemistry. Three times weekly, through the year.

Attendance: First half-year, 22; second half-year, 23.
The Electrical Nature of Matter and Radioactivity. *Once weekly during the second half-year.*
Attendance: 39.

By Professor Renouf:
General Chemistry for Undergraduates (Minor Course). *Four times weekly, through the year, with weekly reviews* by Mr. Brunel.
Attendance: First half-year, 49; second half-year, 48.

By Dr. J. E. Gilpin, Associate in Chemistry:
Inorganic Chemistry for Undergraduates (Major Course). *Four times weekly, first half-year.*
Attendance: 26.
Chemistry of the Compounds of Carbon for Undergraduates (Major Course). *Four times weekly, second half-year.*
Attendance: 25.

The number of students working in the laboratory was 106 during the first half-year, and 112 during the second. During the first half-year thirty-five of these were graduates and thirty-two were following Chemistry as their principal subject; during the second half-year the graduates numbered thirty-eight, thirty-three of them following Chemistry as their principal subject.

President Remsen has had general supervision of the work in organic chemistry.
Professor Morse has had charge of the work in quantitative chemistry, and under his supervision Dr. Frazer and Messrs. Dunbar, Gray, Hoffman, Holmes, Hopkins, Kennon, and Lovelace have been engaged in research.
Professor Jones has directed the work in physical chemistry, and under his guidance Dr. Uhler and Messrs. McMaster, Pearce, Rouiller, Stine, and Veazey have been engaged in the investigation of certain problems in physical chemistry.

Dr. Tingle has assisted President Remsen, and under his direction Messrs. Blanck, Gorsline, Robinson, and Williams have been engaged in research work.

Dr. S. F. Acree, who was reappointed Henry E. Johnston Scholar in the department of Chemistry for the year 1905–06, has been engaged in research work, and has had the assistance of Messrs. Brunel, Johnson, Shadinger, and Syme.

The laboratory work of the undergraduates in the major course and the work in qualitative analysis have been under the direction of Professor Renouf.

Dr. Gilpin, aided by Messrs. Shadinger and Veazey, has directed the laboratory work of the undergraduates of the minor course.

Under grants from the Carnegie Institution to Professors Morse and Jones, Doctors Frazer and Uhler have been engaged in the investigation
of problems connected with osmotic pressure and the absorption spectra of certain salts in the presence of other salts acting as dehydrating agents.

During the present year, the lecture room on the second floor of the laboratory, in which the instruction in chemistry in this university was begun thirty years ago, and the smaller room adjacent to it—hitherto devoted to the preparation of organic compounds—have been converted into a laboratory for Physical Chemistry, which comprises a room for students engaged in routine work, an office for Professor Jones, and four smaller rooms for the accommodation of students engaged in research.

Nine advanced students have absolved their requirements for the degree of Doctor of Philosophy. Their names and the titles of their dissertations are given below:

R. F. Brunel.—On the Salts of Tautomeric Compounds; Reactions of Urazole Salts with Alkyl Halides.


E. J. Hoffman.—A Redetermination of the Osmotic Pressure of Cane-Sugar Solutions.

B. S. Hopkins.—The Osmotic Pressure of Glucose Solutions; the Densities and Freezing-Point Depressions of Glucose and Cane-Sugar; some Experiments on the Osmotic Pressure of Urea Solutions.

W. L. Kennon.—The Osmotic Pressure of Cane-Sugar Solutions.

L. McMaster.—The Conductivity and Viscosity of Solutions of Certain Salts in Water, Methyl Alcohol, Ethyl Alcohol, Acetone, and in Binary Mixtures of these Solvents.

C. J. Robinson.—A Continuation of the Study of the Action of Amines on Camphoroxalic Acid. The Combustion of Halogen Compounds in the Presence of Copper Oxide. Some Experiments Relating to the so-called "Infusible Diamide" of Parasulphaninebenzoic Acid.

C. A. Rouiller.—The Relative Migration Velocities of the Ions of Silver Nitrate in Water, Methyl Alcohol, Ethyl Alcohol, Acetone, and in Binary Mixtures of these Solvents, together with the Conductivity of such Solutions.

W. A. Syme.—Some Constituents of the Poison Ivy Plant (Rhus Toxicodendron).

Thirteen other advanced students entered upon their dissertation work during the year.

Volumes XXXIV and XXXV of the American Chemical Journal have been issued.
Geology

The Geological Laboratory was open daily during the year for the work of both advanced and undergraduate students. Lectures and class-room work were conducted as follows:

(a) General Geology, by Dr. Swartz. Four lectures and one afternoon of practical work each week throughout the year.

(b) Paleontology, by Professor Clark. Two lectures each week throughout the year.

(c) Systematic Paleontology, by Professor Clark and Dr. Swartz. Laboratory work throughout the year.

(d) Geological Physics, by Professor Reid. Two lectures each week throughout the year.

(e) Petrography, by Professor Mathews. Three lectures and two afternoons of laboratory work each week throughout the year.

(f) Geological Field Methods, by Professor Mathews. One afternoon each week for one-half year.

(g) Economic Geology, by Professor James F. Kemp, of Columbia University. Ten lectures in April and May.

(4) Geological Conferences. Weekly, throughout the year.

Original Work and Publications. Original work was carried on by Professor Clark, in conjunction with several assistants, on various phases of Maryland geology, the results of which are appearing from time to time in the reports of the Maryland Geological Survey and other scientific publications. Professor Clark was also engaged in a general study of the Mesozoic and Cenozoic Echinodermata of the United States, in conjunction with Dr. M. W. Twitchell. He was also actively employed in the management of the State Geological Survey and the State Weather Service, and in the supervision of the publications of those two bureaus, both of which are carried on under the auspices of the university. He also continued his work as Commissioner on behalf of the State of Maryland in the supervision of the survey of the Mason and Dixon Line. As a Geologist of the U. S. Geological Survey, Professor Clark has also been engaged with the assistance of others, among them Mr. Berry and Mr. Stephenson of the geological department, in a study of the Coastal Plain formations from New Jersey to North Carolina.

Professor Reid continued his glacial and seismological studies. A meeting of glacialists was held at the Forno glacier early in September 1905, under his presidency, at which the relation of the stratification of the snow and the blue-bands was especially considered, and it was shown that the general system of blue bands in the body of a glacier is merely the modified appearance of the original stratification. As a member of the California State Earthquake Investigation Commission, Professor Reid
Geology

spent six weeks in California during the last summer, studying the effects of the earthquake in the field. He afterwards attended the International Congress of Geologistas in Mexico, in connection with which he visited several of the Mexican volcanoes. He is in charge of the earthquake records of the U. S. Geological Survey, and has been appointed the delegate to represent the United States in the International Seismological Association.

Professor Mathews has continued his investigations of geology of the Piedmont Plateau of Maryland, extending his studies through Baltimore and Howard counties. The work has resulted in the discovery of an unusual type of geological structure in harmony with the general conditions previously outlined by him in earlier publications. Much of Dr. Mathews' time has also been employed in bringing to completion his studies regarding the boundaries of Maryland and its counties. The results which he has obtained will appear in a Report on the Mason and Dixon Line to be issued jointly by the states of Maryland and Pennsylvania and in a Report on the County Boundaries issued by the Maryland Geological Survey. In connection with the latter organization Dr. Mathews, as Assistant State Geologist, has been in charge of certain phases of its work and in editing the various publications of the bureau.

Dr. Swartz continued his investigations of the Devonian faunas of Ohio, securing important results regarding the correlation of the formations in the northern and southern portions of that State. He also continued, with the assistance of Mr. Oehren, a graduate student of the department, a study of the Devonian deposits of western Maryland.

Mr. Berry has been engaged in a study of the Potomac floras of New Jersey, Maryland, and North Carolina for the Surveys of those states, and is already engaged in the preparation of several interesting articles on the same.

Dr. Fassig continued his detailed study of the climate of Baltimore and has practically completed his monograph on this subject, which will be printed as the second volume of reports on the State Weather Service. Dr. Fassig has recently been placed in charge of the Investigations of the Upper Atmosphere by the U. S. Weather Service, and will conduct a series of studies at Mt. Weather, Va.

Several other investigations were started by members of the department which will result later in publications.

Excursions. Numerous excursions were made with the graduate and undergraduate students into characteristic areas in the Coastal Plain and the Piedmont Plateau, as in former years. These excursions are regarded as an important adjunct to the class-room and laboratory work.

Scientific Societies. The fortnightly meetings of the Geological Society of Washington, as well as the meetings of the National Geographic Society, were attended from time to time during the winter by the instructors and students. By the courtesy of the Geological Society of Washington, the
graduate students of this department are elected to non-resident membership in that body.

Coöperation. Active coöperation was maintained, as in the past, with the chiefs of several of the National and State bureaus. The coöperation of the U. S. Geological Survey, through its chief, Hon. Charles D. Walcott, and of the U. S. Weather Bureau, through its chief, Professor Willis L. Moore, has been of much importance to the work of the department.

Apparatus and Collections. Several valuable additions have been made to the apparatus and collections during the year. The library has been considerably enlarged by gifts of books and maps. Professor Cleveland Abbe has in particular added many books to the meteorological library which bears his name.

WM. BULLOCK CLARK,
Professor of Geology.

Zoology and Botany

During the past academic year the Biological Laboratory has been open for advanced and collegiate students, and lectures and class-room instruction have been given as follows:

By Professor Brooks:
Advanced Zoology. For graduate students. One lecture a week on
Theoretical Zoology, from October 1 to March 1.
Zoological Seminary. Once a week, from October 1 to March 1. The
work of the Seminary was based upon Darwin's Origin of Species.
Meeting of graduate students for reports on the current literature of
Zoology and Botany. (With Dr. Andrews and Dr. Johnson.) Weekly
throughout the year.

By Dr. Andrews:
General Biology. Nine hours a week, to April 1.
Elements of Embryology. Twice a week, from April 1 to end of session.

By Professor Johnson:
The Cell Theory, and Sexuality of Plants. For graduate students.
Twice a week, from January 1 to March 1.
Botanical Seminary. Twice a week, from January 1 to April 1. The work
was based on Schimper's Plant Geography and Sachs' History of
Botany.

By Dr. Grave:
Elementary Zoology. Four times a week, from October 1 to March 15.
Zoology (undergraduate elective). Twice a week throughout the year.
By Dr. Conard:

Physiology of Plants. For graduate students. Two lectures and two laboratory exercises a week, from December 1 to April 1. The special subject was Growth and Contractility in Plants.

**ADVANCED WORK IN ZOOLOGY AND BOTANY**

The degree of Doctor of Philosophy was conferred upon R. E. Coker, whose dissertation is on Diversity in the Scutes and Bony Plates of Chelonia.

The dissertations of R. P. Cowles, on *Phoronia Architecta*, of D. H. Tennent, on the Life-history of *Bucephalus*, and of F. Shreve, on *Sarracenia purpurea*, have been printed, and sent to the library in accordance with our rules.

The dissertation of C. P. Sigerfoos, who received the degree of Doctor of Philosophy in 1897, has not yet been printed.

Dr. Henry S. Conard was reappointed a Johnston Scholar. He gave a course of lectures on the Physiology of Plants and continued the investigation of the development of the fern *Deenstaedtia punctiloba*. The results of this work are now ready for the press. The Adam T. Bruce Fellowship was awarded to Forrest Shreve. After a month of preliminary work at the laboratory of the New York Botanical Garden at Bronx Park, Dr. Shreve went to Jamaica, where he spent the year at the Tropical Station of the New York Botanical Garden. He studied the geography of the plants of the Blue Mountain region, determining the structure and distribution of the covering of plants in its relation to the topography and climatic conditions. His results are very complete, and are now being prepared for publication.

The following publications by investigators in the laboratory have appeared during the year:

- Polarity in the Weeping Willow, by E. A. Andrews. (*Torrrea* 6, January, 1906.)
- Geographical Distribution of Crayfish, by E. A. Andrews. (*Univ. Cirr.* May, 1906.)

Behavior of the Lower Organisms, by H. S. Jennings. (Columbia Biol. Series, 1906.)

The Hardy Water Lilies, by H. S. Conard. (Univ. Circ., May, 1906.)

Morphology of the Fern Stem, by H. S. Conard. (Univ. Circ., May, 1906.)


The Fisheries Laboratory at Beaufort, by Caswell Grave. (Science, May 12, 1906.)


The Marine Laboratory of the U. S. Fish Commission at Beaufort, N. C., was directed this year by Dr. Coker, and several graduate students from our laboratory accepted the invitation of the Commission, and spent the summer there in zoological research.

A party of three, from our laboratory, accepted the invitation of Dr. A. G. Mayer, the director of the Carnegie Marine Laboratory, at the Dry Tortugas, and spent part of the summer there in research.

Dr. Johnson spent the months of April, May, and June in Jamaica pursuing the investigation of the habits, structure, and development of the plants of the Pepper family and their relatives. This work was carried on chiefly at the Cinchona Station of the New York Botanical Garden, the privileges of which were kindly placed at his disposal. Mr. I. F. Lewis and Mr. W. D. Hoyt were with Dr. Johnson in Jamaica, the former engaged in a study of the fresh-water algae of the Jamaican highlands, and the latter investigating the development of the prothalia of certain ferns. Thanks are due to the trustees of the Bache Fund for grants to Dr. Johnson and to Messrs. Lewis and Hoyt, in aid of their investigations.

Dr. Johnson also had charge during the summer of the instruction and investigation in Cryptogamic Botany at the Marine Laboratory of the Brooklyn Institute of Arts and Sciences.

Dr. Caswell Grave resigned his position as Associate in Zoology to accept a position in the Woman's College in Baltimore. This position he afterwards resigned, and he was then reappointed in this institution with the title of Associate Professor of Zoology, and was granted leave of absence for two years, to serve as secretary of the Shellfish Commission of the State of Maryland.

Dr. Forrest Shreve, who has held the Adam T. Bruce Fellowship for the year, has been appointed Associate Professor of Botany in the Woman's College of Baltimore.
Dr. R. E. Coker, who was appointed Adam T. Bruce Fellow, to succeed Dr. Shreve, resigned the fellowship to accept a position as investigator of Sea Fishes under the Government of Peru.

Dr. D. S. Johnson, who has had charge of the instruction in Botany for several years, has been appointed Professor of Botany.

Dr. H. S. Jennings, Assistant Professor of Zoology in the University of Pennsylvania, gave an illustrated lecture on Animal Behavior in the laboratory in May, and was subsequently appointed Associate Professor of Physiological Zoology. He will enter upon his duties in October, 1906, and will organize classes of graduate students and of undergraduates. He will also supervise the equipment of his class-rooms with the apparatus and appliances for research in Physiological Zoology.

Dr. Alfred G. Mayer, the Director of the Tropical Marine Laboratory of the Carnegie Institution, gave a lecture to instructors and graduate students in February, on the Physiology of the Nervous System of Medusae.

William K. Brooks,
Professor of Zoology.

Physiology

The courses given during the past academic year were as follows:

By Professor Howell:
1. The physiology of nutrition and of special senses. Lectures, recitations, and demonstrations. *Four times a week from October to the Christmas recess.*
2. The physiology of muscle and nerve and of the central nervous system. Lectures and demonstrations. *Three times a week from January to March 15.*
3. The Physiological Journal Club, composed of instructors and advanced students, and organized for the systematic presentation and discussion of current literature. *Once weekly from October to June.*
4. The Physiological Seminary, composed of the instructors and advanced students, and organized for the purpose of discussing general topics in physiology. During the past session most of the time was given to a study of Metschnikoff’s work upon The Nature of Man.

By Professor Howell, assisted by Drs. Dawson, Erlanger, and Eyster:
A laboratory course in experimental physiology. *Daily from 10 a.m. to 5 p.m., during October, November, and December.*

By Associate Professor Dawson:
1. The physiology of circulation and respiration. Lectures, recitations, and demonstrations. *Three times weekly from March 15 to June.*
2. Laboratory course, as specified above.
By Associate Professor Erlanger:

1. The physiology of secretion, digestion and nutrition. Lectures, recitations, and demonstrations. Three times weekly from March 15 to June.

2. Laboratory course, as specified above.

During the year, Dr. Joseph Erlanger, Associate Professor of Physiology, received and accepted a call to the professorship of physiology in the University of Wisconsin. I desire to express my deep appreciation of the services of Dr. Erlanger while connected with this department. As a teacher he was faithful and most efficient, and as an investigator he was even more successful, having published a number of researches which have attracted wide attention and commendation from physiologists and physicians. Mr. W. H. Schultz was appointed Fellow in Physiology, and was engaged during the year upon an investigation of the refractory period of the heart-beat. A portion of his investigation has been published.


Other researches in progress, which were not completed during the year, will be continued during the coming session.

W. H. Howell,
Professor of Physiology.
Greek

Under the direction of Professor Gildersleeve the advanced students of Greek have been organized into a Greek Seminary. According to the plan of the Seminary, the work of each year is concentrated on some leading author or some special department of literature. During the past year the centre of work was Plato, and the members, who met twice a week as a Seminary, were required to present in turn exegetical and critical commentaries on select dialogues, to make analyses of the same, and to prepare introductory lectures and papers on special points.

The work of the Seminary was accompanied by a course of lectures on Plato and supplemented by a series of conferences on the History of Greek Philosophy, Ritter and Preller being the basis, with constant reference to the development of philosophic style.

Besides the Seminary course proper, Professor Gildersleeve conducted a series of twenty exercises in extemporaneous translation from Greek into English and English into Greek, and, from the beginning of January to the close of the session, lectured once a week on select chapters of Greek Syntax, and conducted weekly readings in the Iliad and the Odyssey.

Associate Professor Miller conducted readings twice a week in the Republic of Plato (first half of the session) and in the Nicomachean Ethics of Aristotle (second half of the session), and gave a series of exercises in advanced Greek Composition for the benefit of candidates for the degree of Doctor of Philosophy. He also conducted the Greek Journal Club, weekly, during the year.

Undergraduate courses were conducted as follows:

Associate Professor Spieker:
- Justin Martyr. Twice weekly, first half-year.
- Epistle of St. James. Once in alternate weeks, second half-year.
- Plato, Protagoras. Three times weekly, first half-year.
- Sophocles, Oedipus Tyrannus; Lyric Poets. Three times weekly, second half-year.
- Andocides, de Mysteriis. Three times weekly, first half-year.
- Lysias, Epitaphius; Euripides, Alcestis. Three times weekly, second half-year.
- Prose Composition (two classes). Weekly, through the year.

Associate Professor Miller:
- Homer, Iliad (book vi); Herodotus, (book vii); Prose Composition. Three times weekly, through the year.
Undergraduates read privately for examination the following books:

Aeschylus, *Prometheus.*
Aristophanes, *Clouds.*
Homer, *Odyssey* (books i, ix, x).

B. L. Gildersleeve,
*Professor of Greek.*

**Latin**

The organization and plan of the Latin Seminary are similar to those adopted in the department of Greek. Each year special attention is given to some one leading department of the literature. The centre of work during the last session was the Roman Epic, more especially Vergil. Under the direction of Professor Smith, the Seminary met twice a week throughout the year. The members presented in turn papers founded upon various special investigations and prepared critical and exegetical commentaries upon given passages of Vergil, Ovid's *Metamorphoses,* Lucan, Valerius Flaccus, Statius, and Claudian. The work of the Seminary was accompanied by a course of lectures on Vergil given by the Director.

In addition to the Seminary course and the auxiliary work Professor Smith lectured on the Roman Epic once a week throughout the year. He also lectured once a week throughout the year on the historical development of Latin Syntax and gave a course of twenty lectures on the growth and development of the Hexameter.

Professor Wilson gave a course of lectures and practical exercises in Latin Palaeography once a week until March 1. From March 1 until the end of the year, he lectured upon Latin pronunciation. He also met the advanced students once a week throughout the year for the rapid reading of the epic poets.

Undergraduate courses were given as follows:

**Professor Smith:**
History of Roman Literature. *Weekly, through the year.*

**Professor Wilson:**
Petronius, *Cena Trimalchionis.* *Two hours weekly, first half-year.*
Lucretius (selections). *Two hours weekly, second half-year.*
Catullus; Roman Elegy (selections). *Three hours weekly, first half-year.*
Plautus; Terence. *Three hours weekly, second half-year.*

**Dr. Barret:**
Livy (two books). *Three hours weekly, first half-year.*
Horace (selections). *Three hours weekly, second half-year.*
Cicero, *Letters* (selections); Nepos (selections). *Two hours weekly, first half-year.*
Sanskrit and Comparative Philology

Ovid (selections); Vergil, Georgics (selections). Two hours weekly, second half-year.
Prose Composition (three classes). Three hours weekly, through the year.

Undergraduates read privately for examination the following books:
Cesar, Bellum Civile, book i.
Tacitus, Agricola.
Ovid, Fasti (selections).
Vergil, Aeneid, books ix and xii.
Quintilian, book x.
Plautus, Miles Gloriosus.

KIRBY FLOWER SMITH.
Professor of Latin.

Classical Archaeology

During the past year Dr. Robinson has lectured twice a week on the Mycenean Age, Greek Architecture, and Greek Sculpture. During the first half-year he lectured twice a week on Greek vases; during the second half-year he lectured twice a week on Greek Life. Greek inscriptions were read and interpreted twice a week through the year.

DAVID MOORE ROBINSON,
Associate in Classical Archaeology.

Sanskrit and Comparative Philology

The plan of the Vedic Seminary, under the direction of Professor Bloomfield, is to present in triennial rotation the principal subjects of Vedic study: the literature of the Rig-Veda; the literature of the Atharva-Veda; and the literature of the Brâhmaṇas and Upanishads. The subject for the session of 1905-6 was the Rig-Veda, the poetic Bible of the Hindus, the canonical collection which stands at the head of all Hindu tradition. A series of introductory lectures dealt with the general character of this assemblage of more than a thousand hymns, and more especially with the methods of interpreting its difficult and obscure parts. This was followed by the critical interpretation of hymns selected so as to turn forth the different aspects of this Veda: the individual divinities of the Vedic Pantheon, its ritual, legends, and institutions.

Dr. Leroy C. Barret, Instructor in Latin in this university, has published his doctor's dissertation, The Kashmirian Atharva-Veda, Book One. Mr.
Samuel G. Oliphant has presented as his dissertation a Study of the Dual in the Veda.

Before this report has passed through the press the Vedic Concordance, it is hoped, will have seen the light of day. Professor Bloomfield has been engaged upon this work for the past dozen years or more. It now appears as a volume of about 1,100 pages, large quarto, printed as one of the 'Harvard Oriental Series' (edited by Professor Charles R. Lanman). This very large collection of materials gathered for the first time from the entire literature of the Veda, and involving more than a hundred native texts, will, it is hoped, impart a new impetus to the study of the literature, religion, and institutions of ancient India. A second part of this work, dealing with its materials from another, scarcely less important, point of view, has been commenced without delay.

An advanced course in the Avesta, the sacred writings of the Zoroastrian Persians, continuing the work of the preceding session (1904–5), was carried on through the year. A considerable number of selected portions of this text were read, analyzed, and made the basis of comparison with the closely related literature of the Vedas.

A second, more elementary course of Vedic study was carried on during the second half of the session. The object of this course is to introduce into the Vedic dialect, and to mark out its relation to the dialect of the Classical Sanskrit. Selected hymns of the Rig-Veda were read and analyzed; the metres, the accentuation, the phonetic, morphological, and lexical peculiarities of the Vedic language were especially emphasized. This course is preparatory to the Vedic Seminary.

The study of Classical Sanskrit was carried on four hours a week during the first semester, and two during the second. The texts read were the fables of the Hitopadeśa, the fairy-tales of the Kathāsaritāgāra, and Law-book of Manu. The elementary work consisted of a course in grammar, and the interpretation of the story of Nala and Damayanti. Dr. S. G. Oliphant, Fellow in Sanskrit, divided the work of these instructions with Professor Bloomfield.

The work in Comparative Philology was twofold. First, a course of weekly lectures during the entire session on general Comparative Philology. It began with a definition of the theme and its relation to History, and was followed by a brief sketch of the history of the science. The bulk of the lectures dealt with the linguistic Ethnology of the Indo-European peoples, beginning with their divisions, their special inter-relations, their original home, and their common characteristics. This was followed by sketches of the individual peoples of the family: India, the Vedas, Brahmanism, Sanskrit literature, and Buddhism; Persia, the Achemenidian inscriptions, the Zoroastrian literature and religion; the minor and problematic Indo-European peoples; and finally ethnological sketches of the European peoples and their national religions.
Oriental Seminary

Secondly, a course of lectures, weekly through the year, on the elements of the Comparative Grammar of the Indo-European peoples. The subject treated during the past year was the history of the Consonants, with special reference to Greek, Latin, German, and Sanskrit. The course was preceded by exercises in the physiological phonetics of the consonants.

MAURICE BLOOMFIELD,
Professor of Sanskrit and Comparative Philology.

Oriental Seminary

In the Oriental Seminary, under the direction of Professor Haupt, thirty courses in the various departments of Oriental research were given during the past year, special attention being paid to Biblical Philology and the Cuneiform Inscriptions bearing on the Scriptures.

Twenty-two hours during the first half-year, and twenty-three during the second, were devoted to the study of Hebrew and the Old Testament. In the Old Testament Seminary, two hours weekly through the year, Professor Haupt gave a Critical Interpretation of the Books of Esther and Jonah. (Professor Haupt's new translation of Esther will be published in the American Journal of Philology.) He also conducted a series of weekly exercises in Hebrew Prose Composition, the students translating idiomatic English sentences into Hebrew. The Ancient Versions of the Book of Esther (Greek, Latin, Syriac, Aramaic) were studied, through the year, under the guidance of Drs. Johnston, Foote, Blake, and Rosenau. Dr. Rosenau met a class for the reading of Unpointed Hebrew Texts, weekly through the year. He also conducted a course in Post-Biblical Hebrew, reading the Mishnic tract Pirqé Abósh, and selections from Maimonides' Moreh Nékhkhín, two hours weekly during the second half-year, and lectured, during the first half-year, on Jewish Biblical Commentators. These lectures have been published by The Friedenwald Co., Baltimore, 1906. Dr. Blake gave, through the year, two series of lectures on Hebrew Grammar, one on Hebrew Phonology, and one on Hebrew Morphology. The instruction in Elementary Hebrew was given by Professor Haupt and Dr. Foote, two hours weekly through the year. Dr. Foote also conducted the Second Year's Course in Hebrew, and gave, in a series of lectures through the year, an Introduction to the Old Testament on the basis of the Authorized Version. Dr. Ember conducted courses in Hebrew Conversation (two hours weekly during the first half-year, and three hours weekly during the second), and in Outlines of Hebrew Grammar, Cursory Reading of the Hebrew Bible, and Hebrew Grammar and Interpretation of Selected Chapters of the Old Testament, each two hours
weekly, through the year. He also gave a course in Modern Hebrew, weekly through the year.

Dr. Rosenau gave a series of lectures on Jewish Ceremonial Institutions during the second half-year.

Associate Professor Johnston lectured on the History of the Ancient East (Egypt, Babylonia, Assyria, Persia, Israel, and Judah), and on the Religions of the Ancient East, two hours weekly through the year.

Professor Haupt conducted a course in Comparative Semitic Grammar, with special reference to the structure of the Semitic verb.

In Biblical Aramaic, Dr. Blake gave a course in the interpretation of the Aramaic portions of the Book of Daniel.

In Arabic, Associate Professor Johnston met a class for the reading of extracts from the Arabian Geographers and other Selected Texts, and Dr. Blake conducted a course in Arabic Readings, besides giving the instruction in Elementary Arabic.

Associate Professor Johnston conducted a course in Syriae through the year, selections from the Chronicles of Gregory Bar Ehhrayd and Eusebius, and the poems of Ephraem being read.

In Assyriology, Professor Haupt interpreted his edition of the Babylonian Nimrod Epic and explained selected Sumerian Hymns and Penitential Psalms. The instruction in Elementary Assyrian was given by Dr. Foote.

In Egyptology, Professor Johnston conducted, through the year, classes in Hieroglyphic Egyptian and Coptic.

Dr. Blake gave, during the second half-year, a course in Philippine Languages with special reference to Tagalog.

A series of public lectures on the Religion of Japan were delivered November 7, 8, 10, 14, 15, and 17, by George William Knox, D. D., Professor of the History and Philosophy of Religion at the Union Theological Seminary, New York. The topics treated were as follows:


At the meeting of the American Oriental Society, held in New Haven, April 17 and 18, sixteen papers were presented by members of the Oriental Seminary:—Professor Haupt: (a) Semitic verbs derived from particles,—(b) The etymology of Hebrew *mohēl*, circumciser,—(c) The Talmudic passage Succah 43b and Psalm cxviii. 27,—(d) Some Indo-European etymologies;—Associate Professor Johnston: Egyptian Chronology;—Dr. Rosenau: (a) Some Talmudical euphemisms,—(b) The Mishnic use of *rīrān,—(c) The need of a lexicon of philosophical terms in Rabbinical Hebrew;—Dr. Blake: (a) Comparative syntax of the noun and its modifiers in Semitic,—(b) Contributions to Comparative Philippine Grammar,—
(c) The expression of case by the verb in Tagalog;—Dr. Foote: The metrical form of the Songs of Degrees;—Dr. Ember: (a) Modern additions to the Hebrew language,—(b) A new modern Hebrew-English and English-Hebrew dictionary;—Mr. Wolfenson: (a) The Pělîl in Hebrew, —(b) The prefixes la, li, lo in Tagalog. Professor Haupt’s first two papers are published in the July number of the American Journal of Semitic Languages, and the last paper in No. 106 of the American Journal of Philology. The papers of Dr. Blake, Dr. Foote and Mr. Wolfenson appeared in vol. xxvii of the Journal of the American Oriental Society.

Seven papers were read by members of the Oriental Seminary at the eight monthly meetings of the University Philological Association: (1) Nov. 17, Professor Haupt: The Book of Esther;—(2) Dec. 15, Dr. Blake: Philippine Literature;—(3) Jan. 19, Dr. Rosenau: On Maimonides;—(4) Dr. Foote: Parthenogenesis in the Septuagint;—(5) Feb. 16, Professor Johnston: The Literary History of the Arabian Nights;—(6) March 16, Professor Haupt: The Etymology of Purim;—(7) May 18, Dr. Blake: The Tagalog Passive.

At the general meeting of the American Philosophical Society, Philadelphia, April 20, 1906, Professor Haupt read a paper on the Herodotean prototype of Esther-Sheherazade.

At the meeting of the Society of Biblical Literature in New York, Dec. 27, 1906, Professor Haupt delivered the annual address on Purim. He also presented two papers, (a) Critical Notes on the Book of Esther, (b) The Hebrew stem nahal ‘to rest.’ The last paper is published in the American Journal of Semitic Languages, vol. xxii, No. 3 (April, 1906), pp. 195–206, and the address on Purim appeared as part 2 of vol. vi of the Johns Hopkins Contributions to Assyriology and Comparative Semitic Grammar.


Associate Professor Johnston’s new illustrated edition (450 pages) of A. H. Sayce’s Empires of the Ancient East (supplemented by chapters on Israelitish and Jewish History, and the History of Arabia) has been in type for some time and will be issued before the end of this year by J. D. Morris & Co., Philadelphia. He also published a paper on a letter of Esarhaddon, containing some remarkable proverbial quotations, in the American Journal of Semitic Languages, vol. xxii, No. 3, (April, 1906).

Dr. Rosenau published, in connection with his lectures on Jewish Biblical Commentators, a pamphlet on some Ancient Oriental Academies (Baltimore, 1906) and a book entitled Jewish Biblical Commentators (Baltimore, The Friedenwald Co., 1906).

Parts 4 and 5 (pp. 413–716) concluding the fifth volume (containing
LVIII + 716 pages) of the Contributions to Assyriology and Comparative Semitic Grammar, edited, with the cooperation of the Johns Hopkins University, by Professor Haupt, in conjunction with Professor Friedrich Delitzsch, of Berlin, appeared in the course of the session. Part 4 contains Old Babylonian Documents from Sippar (with twenty-one illustrations in the text, two plates, and forty-two pages of cuneiform texts), edited and translated by Professor Thomas Friedrich, of the University of Innsbruck; Part 5: Some Cuneiform Tablets bearing on the Religion of Babylonia and Assyria (with ninety-six pages of cuneiform texts), edited and translated by Kerr D. Macmillan, of Princeton, N. J.; followed by an article on the particle -ma in Assyro-Babylonian, by Dr. A. Ungnad. Part 1 of the sixth volume, containing an elaborate paper on the Bronze Gates of Balawat, by Colonel Billerbeck and Professor Delitzsch, is now in press, and will be issued at the beginning of next session. The Beiträge will henceforth be published as a series of monographs; papers of more than thirty pages will be issued separately, with special title and pagination.

In the quarto series of cuneiform works, edited by Professor Haupt, in conjunction with Professor Delitzsch, there appeared two new volumes, viz., vol. XIX, containing Materials for a Sumerian Lexicon, with a grammatical introduction, by Professor John Dyneley Prince, of Columbia University, New York, (who was Fellow in Semitic during the session 1891-92); and vol. XX, containing a list of rare Assyrian ideograms, by Professor Bruno Meissner, of the University of Breslau, Germany.

The library, under the charge of Dr. Blake, was completely re-arranged and placed in such a condition that any book may be referred to without loss of time. New subdivisions of subjects were made, and every book and pamphlet, so far as possible, arranged, according to author or editor, in alphabetical order under the various subdivisions of subjects. Assistance in arranging the modern Hebrew books, presented by the late Leopold Strouse of Baltimore, was rendered by the Rayner Fellow, Dr. Aaron Ember. The Old Testament commentaries were furnished with labels indicating the date of publication, so that the student can readily pick out the latest, and at the same time, following the alphabetical order, find the commentary of any author to whom he is referred. The whole library has been divided into a series of vertical sections, indicated by letters, and the shelves within the various sections have been furnished with shelf numbers. A key to the arrangement, consisting of a card catalogue of the different subjects represented in the library, with references to the section and shelf where the books and pamphlets treating the various subjects are to be found, was also prepared. The card catalogue of authors, to which no additions have been made for a number of years, is in course of completion, the cards being furnished at the same time with a reference to the subject under which the book is placed. When this is finished, the card catalogue of subjects will be completed in the same way.
A list of the most important works needed for the library was prepared, and to this the principal publications in the various branches of Oriental research will be added as they appear.

The library received a number of important accessions, consisting of works in the different departments of Semitic Philology, and also of books on various Malayo-Polynesian languages, especially Tagalog.

The limit of the capacity of the Dillmann Library, the room in which the library of the Oriental Seminary is housed, has almost been reached.

Paul Haupt,
W. W. Spence Professor of the Semitic Languages.

English

1. Advanced Courses.

The English Seminary was conducted by Professor Bright. The Seminary met, throughout the year, twice a week, in sessions of two hours each. At the beginning of the year, some of the minor poems of Spenser were studied, in continuation of the work of the preceding half-year. The range of study was then widened into an investigation of the principal literary problems of the Renaissance; in this wider view the poems of Wyatt and Surrey were then minutely studied. Thereafter the central theme of investigation was the development of the Moral Plays and Interludes.

Professor Bright lectured, once a week, throughout the year, on Middle English Grammar.

The members of the Seminary met Professor Bright, twice a week, throughout the year, for the interpretation of Anglo-Saxon poems. Juliana, Elene, and Christ were read.

The Journal Club of the Seminary was conducted by Professor Bright. Sessions of two hours each were held on alternate Fridays, throughout the year, for reports of the current philological periodicals, reviews of new books, and the presentation and discussion of papers representing such independent investigations as were less directly connected with the concurrent work of the Seminary.

Professor Browne lectured once a week on Ben Jonson and his successors. Jonson’s principles of dramatic art were studied, and each play examined and criticised. The works of those dramatists who accepted and worked on Jonson’s principles, such as Brome, Marmion, Mayne, Randolph, Wilson, and Shadwell, were also examined.

Professor Browne also lectured once a week during the second half-year
on the writers of the so-called "classic" period, from Dryden to Johnson and Goldsmith.

2. College Courses.

The English major class in Anglo-Saxon, using Professor Bright's Anglo-Saxon Reader as text-book, was met twice a week by Dr. Ramsay.

Professor Browne met the English major class twice a week. One hour weekly was given to readings from the Scottish poets of the fourteenth, fifteenth, and sixteenth centuries, and one hour weekly was given to (a) the Elizabethan poets, especially Shakespeare (including a reading of Hamlet by the class) and to (b) Burke's speeches on America.

The English minor class was conducted by Professor Browne. The work consisted of readings of Early and Middle English texts (two hours a week) with Morris and Skeat's Specimens as the text-book, and general English literature (two hours a week) with Arnold's Manual of English Literature.

A class in Rhetoric and English Composition met three times a week throughout the year. Until the sixth of November this class was taught by Professor Greene. The class was then divided into three sections, and Dr. French and Dr. Ramsay assisted in the work of instruction and in the reading of manuscript. Theory was imparted by means of text-book (A. S. Hill's Principles of Rhetoric), lectures, and discussions; practice was obtained by the writing of about fifty short papers, of which a few from each set were read and criticised in the class-room, and by the writing of five essays, three of which (one in each term) were read and criticised privately with the writers. The weekly practice in writing was combined with an examination of the usage of standard writers. Each member of Section A made a careful study of the style of one prose author (in most cases of a nineteenth-century author), and presented the results of his study in a series of short papers. The class-work included a study of representative passages of narration (Brewster's Specimens of Narration). The members of Sections B and C made a careful study of specimens of standard prose, as contained in Brewster's Studies in Structure and Style and in Lewis's Specimens of the Forms of Discourse, and presented a series of short papers containing the results of their study. The members of the three sections read the poems contained in Palgrave's Golden Treasury of Songs and Lyrics, and wrote a series of short papers upon topics suggested by their reading.

Dr. Ramsay conducted, once a week, a class in English Composition, primarily to supply additional instruction for students in special need of further training. In addition to those who were required to follow the course, a number of students voluntarily improved the opportunity thus afforded them.

A class in English Literature met Professor Greene three times a week
throughout the year. This class made a general survey of English Literature from the beginning until about 1625. A detailed study was made of the works of Chaucer, Spenser, and Shakespeare. Of the writings of these three poets a considerable amount was studied critically in the class-room; and more was read by the members of the class in their private reading. In addition to the regular class-room exercises, five readings from the poems of Chaucer and twelve lectures upon the dramas of Shakespeare were given for the benefit of those members of the class who desired to attend them.

An elective course in English Literature was given by Professor Greene, two hours a week throughout the year. During the first half-year the study was centered upon the works of Dryden, Steele, Addison, Swift, and Pope; during the second half-year, upon the works of Wordsworth, Coleridge, Keats, Shelley, and Byron. In connection with the weekly lectures and discussions the members of the class did a large amount of private reading. Each student prepared and read before the class, during each half-year, a paper upon one of the principal writers studied.

A course in reading and public speaking, one hour a week from the beginning of the year until Easter, was given by Dr. French. The class was divided into four sections of about fifteen each. Dickens's *Christmas Carol* and selections from Ringwalt's *Modern American Oratory* were used as material for reading and speaking.

Dr. French met the junior class in forensics fortnightly, in two divisions. The work consisted of written arguments, prepared and extemporaneous debates, and a few lectures on the theory of argumentation. Alden's *Art of Debate* was read as a text-book.

An elective course in forensics was given fortnightly during the first half-year by Dr. French.

The "Adams Contest," held in February, afforded additional practice in public speaking and debate. Contestants for the Adams medal from the class of 1908 and debating teams from the classes of 1907 and 1906, chosen by competitive tests, were trained in delivery. A university debating team was guided in its preparation for an intercollegiate debate with the University of Virginia.

3. Public Lectures on Literature.


Professor Bright gave a lecture (March 15) on "The External Form of English Poetry."

The thirteenth course of the Percy Turnbull Memorial Lectures on Poetry was given (March 19-27) by Dr. Henry van Dyke, of Princeton. The theme of the course, "The Service of Poetry," was presented in
six lectures: (1) What Poetry Is; (2) Poetry and Human Intercourse; (3) The Palace of Art; (4) Voices of Nature; (5) Marching Music; (6) Symphonies of the Immortal.

James Wilson Bright,
Caroline Donovan Professor of English Literature.
William Hand Browne,
Professor of English Literature.
Herbert Eveleth Greene,
Collegiate Professor of English.

German

The German Seminary, under the direction of Professor Henry Wood, met three times weekly, through the year. During the first half-year, the period of Sturm und Drang in German literature was studied. The writers who received the chief share of attention were Goethe, Lenz, Klinger, and Maler Müller. Special subjects of investigation by the Seminary were: the relation of Klinger’s Faust Romances to Goethe’s Faust, and the growth and characteristics of the literary style of the representative Stürmer und Dränger. Extended comparison between earlier and later style and vocabulary was made in the works of Goethe and Maler Müller. During the second half-year, the Seminary read the poems of Walther von der Vogelweide. Besides the study of Walther’s sprüche, as furnishing biographical data for the poet, the lieder were considered in detail, from the point of view of Walther’s literary development. Some additions were made to the conclusions previously arrived at (Amer. Jour. of Phil., vol. xi) as to the comparative chronology of Walther’s poems.

The Germanic Society, which is composed of the director of the Seminary and the instructors and graduate students in German, met fortnightly through the year in an afternoon session. Besides reviews and reports, papers on the following subjects were presented, which gave from time to time preliminary results of studies still in progress: die Sprichwörter in der mittel-hochdeutschen Version des “Reinhard Fuchs”; German loan words and German linguistic influence in Lithuanian; an unrecorded fifteenth century edition of the German Bible; word-order in relative clauses in the first printed German Bibles; the relation of the particle da to the word-order of relative clauses; plural -er in dative of nouns in the fifteenth century; Tyndale’s and Luther’s versions of the Gospel of Matthew; Pamphillus Gengenbach als Buchdrucker und Dichter zu Anfang der Reformationszeit; die Streitfrage über Gengenbach’s “Totenfresser
und Novella"; the source of the "Musarion" verses in Goethe's "Maske von 1818"; St. Hubertus in Goethe's "St. Rochusfest zu Bingen"; Goethe's esthetic and the theory of illusion; Goethe's alleged ignorance of Byron; notes on Schiller's "William Tell"; the characters in Aufscheh's "Dorfgeschichten," as psychologically developed from situation and surroundings; Immermann's conception of the Bauer in his "Münchhausen"; der Symbolismus in Hauptmann's Glashüttenmärchen "Und Pippa tanzt."

Professor Wood gave, in addition, the following graduate courses:
1. German Literature in the period from 1870–1900. Twice weekly, first half-year. The attempt was made in this course to show that the best authors of the new period stand in closer relation to Swiss German and South German literary production of the middle of the last century, than to the writings of the so-called liberal school, subsequent to 1850. Gottfried Keller and Eduard Mörike were found to be especially suggestive in this regard, the former as already exhibiting a true realistic-idealistic style, and Mörike as forecasting, and even influencing romantic material and tendencies in the dramas of Gerhart Hauptmann.

2. History of German Literature in the first half of the eighteenth century. Twice weekly, second half-year. Following natural divisions, the course embraced, more accurately, the period between the years 1680 and 1730. After a review of the lyrical poetry of Hofmannswaldau and his school, the drama was studied in Weise's Bäuerischer Machiavelli, and this was followed by the reading of Canitz and by a digest of the critical reforms at the beginning of the new century. Brockes' work was compared with the new English poetry of nature. Wernike's epigrams were studied, and the satires of Rabener were chosen to illustrate the approach to a more natural and artistic style, the development of which will be considered, another year, in the Beginnings of German Classicism.

3. Gothic and the Elements of Comparative German Grammar. Twice weekly, through the year. Braune's Gotische Grammatik was studied, after which parts of Ulfilas were interpreted, with Bernhardt's larger edition and Heyne-Wrede as a basis. Kluge's Vorgeschichte der altgermanischen Dialekt was read in part, and was accompanied by practical exercises designed to illustrate the principles of sound-change and word-formation for the several Teutonic languages.

In the undergraduate major course, Professor Wood conducted a class, in Schiller's Wallenstein and Goethe's Faust, twice weekly, through the year. The third part of the trilogy, Wallenstein's Tod, was assigned as private reading. In the minor course A, he conducted weekly exercises in prose composition.

Associate Professor Vos gave an Introductory Course in Middle High German, twice weekly during the first half-year. The phonology, inflection, and syntax were studied with the aid of Paul's Mittelhochdeutsche
Grammatik, and selections were read from Bachmann's *Mittelhochdeutsches Lesebuch*.

He also gave a course, weekly during the first half-year, in the Old High German Alliterative Poems. The *Hildebrandslied*, *Muspilli*, *Wessobrunner Gebet*, and *Merceburger Zaubersprüche* were the subject of detailed critical study.

Weekly during the second half-year, he gave a course in Old High German Literature, in which a survey was taken of the main rimed and prose monuments. The shorter rimed poems were read and discussed in class.

He also lectured, twice weekly during the second half-year, on Modern German Grammar, Noun Declension. The inflection and the grouping of noun-classes in Modern German were compared in detail with those of the older periods of the language, and the attempt was made to discover in each case the cause underlying the change in inflection, and the shifting of noun-groups.

The following undergraduate courses were conducted by Associate Professor Vos:

History of German Literature (Major Course), weekly. The text-book used was Robertson's History of German Literature, the period covered extending from 1730 to 1832. Selections were read also from Goethe's poems.

In the Minor Course A, the following notes were read in class: Seidel, *Leberecht Hühnchen*; Fulda, *Unter vier Augen*; Benedix, *Der Prozess*; Sudermann, *Frau Sorge*. C. F. Meyer, *Das Amulett*, was assigned as private reading.

Dr. Thomas S. Baker, Professor in the Jacob Tome Institute, gave a course of lectures, weekly, through the year, on the History of the German Novel in the eighteenth century.

Dr. William Kurrelmeyer gave undergraduate and special courses, as follows:


Scientific German Readings. Two hours weekly. Lassar-Cohn, *Die Chemie im täglichen Leben*; Walther, *Allgemeine Meereskunde*; Wagner,
Romance Languages

Entwicklungstheorie; von Helmholtz, *Über Goethe's naturwissenschaftliche Arbeiten.*

Historical Readings. Two hours weekly. Schiller, *Geschichte des dreissigjährigen Krieges (Drittes Buch)*; Tombo, *Deutsche Reden.*

Mr. Julius Hofmann conducted, in the major course, weekly exercises in prose composition. He also met a class of graduate students, twice weekly, for oral exercises in German. Accurate German pronunciation was the end constantly and chiefly aimed at, the method being prolonged practice on the vowels and then on the consonants. Special attention was paid to the difference in the pronunciation of the same letter in the two languages. In the first half-year short stories were used as a basis, both for the discussion and the oral exercises. Subsequently, a number of poems were memorized.

Henry Wood,
Professor of German.

Romance Languages

I. Graduate Courses.
Professor Elliott conducted advanced courses as follows:
Romance Seminary. Two hours fortnightly.

The work centred on the *Fables of Marie de France,* the object of the course being to acquire a working knowledge of the fable literature of Antiquity and the Middle Ages; to become acquainted with the characteristics of the Norman and Anglo-Norman dialects in which some of the more important manuscripts are written; to present the fundamental principles of text-criticism and text-constitution. A clear view of the morphology and phonetics of language was obtained as contrasted with those of the Isle-de-France; likewise of the Old-French construction as compared with that of the Modern French.

In addition to this, special investigations were made under Dr. Keidel's direction among the fable manuscripts of Brussels, the *Ésopic fables* in Jehan de Vignay's *Miroir Historial,* the fable collections of the Italian humanists, and the Greek and Latin fable manuscripts of the Middle Ages. Special study was further devoted to the Romance versions of the *Belly and Members* and to the *Wolf and Beetle.*

The object here was to give the student an introduction to the phonetics and morphology of Folk- and Low-Latin as the common basis for a scientific study of the Romance idioms. Meyer-Lübke's treatment of the subject in Gröber's *Grundriss der romanischen Philologie* was taken as the starting-
point for this work, in connection with which lectures were given, contrasting the popular forms with the historical development of the classical forms.


The object of this organization, to which all members of the Romance department belong, is to foster a common interest in everything that concerns the study of Romance idioms. Reviews of important journal articles, papers on original investigations, discussions of literary and scientific subjects, reports of correspondence of a professional nature, represent the chief proceedings of the club.


The dialects especially considered were the Norman, Picard, and Walloon groups. The method of work was, to a great extent, practical, and had in view a sufficient acquaintance with dialect forms to enable the student to discriminate Old-French texts belonging to these different idioms. To this end the leading characteristics of the old and modern dialects were presented in a few lectures; then, through the use of early and later texts, the student was required to recognize and name the dialect features as they occur in the respective texts.

Lectures on Dante. *Weekly.*

The object of this course was to give the student a survey of the Dante science of to-day. In a few introductory lectures he was made acquainted with the leading philosophical and literary tendencies of Dante's time, the *Inferno* and *Purgatorio* doctrines before the author's epoch. The *Inferno* and *Purgatorio* were analyzed and presented in detail, both with reference to the previously existing ideas of punishment and recompense and to those peculiar to Dante.

*Lois* of Marie de France. *Two hours fortnightly.*

This course was intended as a general introduction to the more advanced work of the Romance Seminary. Attention was concentrated on the Bisclavret, about one-third of which was exhaustively studied in reference to Old-French syntax as compared with that of the Modern French. Under Dr. Keidel's supervision, reports were also made on the sources of the lays of *Bisclavret* and *Melion,* and modern Canadian werewolf stories were compared with those of Medieval France.

Professor F. M. Warren conducted the following courses on Medieval French literature during the month of December:

A series of twenty lectures on the *romans d'aventure* in French and Provençal. The poems represented in this group were considered in their relation to the changing ideas and sentiments of society during the last half of the twelfth and the thirteenth centuries. The source of their plots were indicated and a study was made of the spirit and style of their individual authors.
A shorter course included the poems of the Crusade cycle. Here two distinct elements of composition were traced, the historical account furnished the vernacular poets by the Latin chroniclers and the statements of eye-witnesses, and the romantic material which was borrowed from other forms of literature, particularly from the story of the Knight of the Swan, who was made the ancestor of Godfrey de Bouillon.

Professor Marden conducted the following courses:

**Spanish Seminary. Two hours weekly.**

The work consisted in a study of the prose works of Alfonso the Wise. First, each student made an examination of the critical material bearing on some single work of Alfonso. The next step was a study of the inter-relation of the various works. The third stage was a special examination of the source, method, and style of the *Crónica General*. The members of the Seminary studied that portion of the *Crónica* which treats of the eighth and ninth centuries and which draws extensively on the Latin chronicles of Rodrigo de Toledo and Lucas de Tuy. After determining Alfonso’s method of using these Latin historians, additional sources were sought and found in other Latin treatises and in oral tradition. The students were enabled to prove the existence of several lost Latin chronicles, to establish their date and show in what manner and to what extent they transmitted a large portion of the historical-literary material.

**Readings in Old-Spanish Literature. Weekly.**

The aim of this course was to give the students an accurate reading knowledge of Spanish of the twelfth and thirteenth centuries. Keller’s *Alspanisches Lesebuch* was used for the first two months, after which the following texts were read in full: *El Misterio de los Reyes Magos*, *Poema de Fernan Gonzáez*, *Razon de amor*.

**The Spanish Drama of the Seventeenth Century. Weekly.**

After a criticism of the general and special treatises on the Spanish drama, the lectures contained a rapid survey of the origin and early growth of the drama in Spain and aimed to give the students a definite idea of the salient features of the drama as it existed at the beginning of Lope de Vega’s career. Special attention was then devoted to Lope and it was shown how he blended the many elements which went to make the *comedia* and wherein this *comedia* was a distinctly national type of literature. The development of the drama was studied to the death of Tirso de Molina. The latter part of the course was confined to the staging of plays in the seventeenth century, and abundant material was drawn from the documents recently published by Pérez Pastor.

Associate Professor Armstrong conducted the following courses:

**French Phonology and Morphology. Three hours weekly.**

Old-French sounds and inflections were studied with reference to their
historical connection with Folk-Latin and with Modern French. A portion of the time was employed in the application of materials and methods embodied in the lectures to the text of *La Vie de St. Alexis*.

**French Syntax.** Two hours weekly.

The lectures in this course were devoted to the substantive, the adjective and the personal pronoun, considered from the historical and comparative standpoint.

**Phonetics and French Pronunciation.** Weekly.

A brief view of general principles and of existing phonetic schools was followed by a description of the organs of speech and a detailed examination of the mode of formation of French sounds. Practical exercises in pronunciation were included.

**Readings in Old-French Literature.** Class B. Weekly.

It was the aim of this course to furnish an introduction to the subject and to equip students for reading Old-French texts with some facility and accuracy. *Guillaume de Dole* and selections from the *Chanson de Roland* were read.

**Readings in Old-French Literature.** Class A. Weekly.

The time was given to rather rapid reading, with attention to language, style, and text criticism. The class read *Ille et Galeron* and selections from Bartsch's *Romanzen und Pastourellen*.

Professor Ogden conducted the following courses:

**Romance Seminary: French Literature.** Two hours fortnightly.

The subject that has been chosen for present study in the Seminary is the poetry of the beginning of the nineteenth century in its personal expression, its growth, and development in its various phases, and its formalization in various schools. Beginning with the lyric and elegiac strain, the year was given up to a study of Lamartine, especially in his formative period, and to a careful consideration of influences with the corresponding response in the expression of the poet. The members of the Seminary presented original papers on the various subjects assigned, which were discussed and criticized at the general meeting.

**The Drama of the Seventeenth Century.** One hour weekly.

The entire year was given to an investigation of the work of Corneille and Racine, with special reference to the relations of the French and Spanish drama of the period. The principles which lie behind the French classic tragedy were presented and discussed, and the plays were examined from this standpoint, as well as from that of a broader art.

**The Development of the French Novel, especially of the Nineteenth Century.** Weekly.

The beginning of this course was devoted to the rise and growth of the
novel from the seventeenth century, but merely as an introduction to the fiction of the nineteenth century. The development and elaboration of the genre was presented from Rousseau, Chateaubriand and the personal in fiction to Realism and Idealism, Naturalism, Impressionism and the Symbolistic School. The desire was to give the general movement of this type, to give the relation of succeeding schools, and to stimulate the student to pursue the subject from his own impulse.

Dr. Keidel conducted the following courses:

Romance Methodology. Weekly.

The general principles of cataloguing, proof-reading, original investigations, library research, and bibliography were explained and fully illustrated by numerous concrete cases of actual personal experience, while special stress was laid on the methods to be employed in the preparation of a dissertation and the writing of book-reviews. A short and succinct account was likewise given of the various groups of Romance scholars in Europe and America, and brief biographical sketches of the most prominent men were added, together with an appreciation of their most important work as investigators and teachers.

Romance Palaeography. Weekly.

By way of introduction a short account of the leading principles involved in the study of incunabula was given, with numerous illustrations from the works themselves as presented both in European and American libraries. This was followed by a description of the various schools of writing developed on Romance territory during the Middle Ages, together with practical exercises in the deciphering of facsimiles of Old-French manuscripts. The object of this course was twofold: to acquaint students with the general literary conditions of a formal nature prevailing during the Middle Ages; and to fit them for the practical work of investigating incunabula and of copying medieval manuscripts.


The fundamental principles of the versification of epic, didactic, and lyric poetry in the Old-French period were explained, with abundant illustration from some of the more important literary monuments. Special study was devoted to the Alexandrine in the Old-French period as being the most important of the metres employed by French poets of all times. It was the special aim of this course to consider the needs of beginners in the subject.

Dr. Brush conducted the following course:


The object of this course is to insure in the student a first-hand knowledge of the masterpieces of French literature. The period studied included part of the seventeenth century and the eighteenth. Selections were read from
the works of Malherbe, Boileau, Corneille, Racine, Molière, Voiture, Mme. de Sévigné, La Fontaine, Descartes, Pascal, La Rochefoucauld, Bossuet, La Bruyère, Voltaire, Rousseau, Le Sage, Montesquieu, Marivaux, Diderot, and Beaumarchais.

Dr. Shaw conducted the following courses:
Manzoni and his Followers. Weekly.
The first three months were spent on an inquiry into the nature and origin of the romantic movement in Italy; in discussing the literary movements which preceded it, from the Renaissance on, and in illustrating the characteristics distinguishing it from the romantic movement in other countries. The rest of the year was spent on the life of Manzoni and his works, especially the Promessi Sposi, and on his followers, Fogazzaro and De Marchi receiving most attention. A bibliography of the subject was given at the beginning of the course.

Boccaccio and the Decameron. Weekly.
The evidence regarding the events of the life of Boccaccio was discussed, a larger part of the time being spent on his early life; his works in Italian were analyzed and the date, history and significance of the Decameron treated more particularly. A bibliography of the subject was given at the beginning of the course.

II. Undergraduate Courses.
Dr. Brush conducted the following courses:
French: Major Course. Four hours weekly.
1. Reading. (a) The Nineteenth Century. Hugo, Quatrevingt-treize, Ray Blas; Musset, Trois Comédies; Chateaubriand, Atala, René; Gautier, Jellatura; Balzac, Les Chouans; Dumas, L'Ami des Femmes; Daudet, Tartarin de Tarascon; Loti, Sélections; Zola, Sélections; Canfield, French Lyrics.
(b) Classics. Corneille, Cinna; Molière, Le Médecin malgré lui, Les Femmes savantes, Le Tartuffe, Le Misanthrope; Lafontaine, Forty Fables; Boileau, l'Art poétique; Voltaire, Candide.
2. Prose Composition based on Grandgent's French Composition and on Kron's French Daily Life.

French: Minor Course A. Four hours weekly.
This was a second-year course in French reading and composition designed to enable the student to translate smoothly from French into English and to write simple French prose.
1. Reading. (a) The Modern Period. Dumas, Les Trois Mousquetaires; About, La Mère de la Marquise; Augier, Le Fils de Giboyer; Daudet, Contes; Coppée, On rend l'Argent.
(b) Masterpieces of the Drama. Corneille, Le Cid; Racine, Andromaque; Molière, Le Bourgeois Gentilhomme; Hugo, Hernani.
2. Private Reading. Mérimée, Colomba; Fortier, Histoire de France; Lamartine, Scènes de la Révolution française.

3. Grammar and Composition based on Fraser and Squair's French Grammar and Exercises based on Colomba.

4. Outline of the history of French literature.

French: Elective A. Two hours weekly.

This course, offered this year for the first time, was designed to make the student thoroughly familiar with the literary language of the present time, and for that purpose the following texts were rapidly read: Chateaubriand, Atala, René; Sand, La Mare au Diable; De Vigny, Cinq Mars; Hugo, Han d'Islande; Balzac, Père Goriot; France, Le Crime de Sylvestre Bonnard; Mirbeau, Les Affaires sont les Affaires; Capus, Notre Jeunesse; Augier and Foussier, Un Beau Mariage.

French: Elective B. Two hours weekly.

This was a reading course open to students who had taken a Minor Course. Weekly practice in composition was required. The following text-books were used: Dumas, Le Comte de Monte Cristo; Augier and Foussier, Un Beau Mariage; Balzac, Le Curé de Tours; Dumas, La Question d'Argent; Hugo (selections); Scribe, Un Verre d'Eau; Bouvet's French Syntax and Composition.

Associate Professor Ogden conducted the following course:

French: Minor Course B. Four hours weekly.

The aim of this course was to prepare the student for an intelligent reading at sight and was open to candidates for an advanced degree insufficiency prepared in French. With this object in view, comparatively little time was spent on grammatical composition, but as soon as possible the class was required to translate easy prose. From this was drawn all illustration of necessary points of grammar. Translation at sight was considered important. The text-books used were: Fraser and Squair's French Grammar; Mon Oncle et mon Curé, LaBrête; Le Voyage de M. Perrichon, Labiche; La Mère de la Marquise, About; Trois Comédies, de Musset.

Professor Marden conducted the following courses:

Spanish: Minor Course. Four hours weekly.

Hill's and Ford's Spanish Grammar was used for the rudiments of grammar and composition. The following texts were read: Alarcón, El Capitán Veneno; Pérez Galdós, Doña Perfecta; Miguel Ramos Carrión and Vital Aza, Zaragüeta, and a few selections from Don Quixote. Exercises in prose composition formed an important part of the work of the first term, and drill in grammar was continued throughout the year.

Spanish: Elective Course. Two hours weekly.

Edgren's Spanish Grammar was used as text-book during the first term and the students began reading after four or five lessons. The class then
read selections from Matzke's Spanish Readings and Isla's Gil Blas de Santillana.

Dr. Shaw conducted the following courses:
Italian: Minor Course. Four hours weekly.
Translation of texts, weekly exercises in Italian composition, lessons in grammar with the translation, brief lectures and recitations on Italian literature weekly. The following text-books were used: Garnett, History of Italian Literature; Young, Italian Grammar; Goldoni, La Locandiera; Fogazzaro, Daniele Cortis.

Italian: Elective Course. Twice weekly.
Study of the grammar with translation. The following text-books were used: Grandgent, Italian Grammar; Barrili, Una Notte Bizzarra; De Marchi, Demetrio Pianelli.

A. Marshall Elliott,  
Professor of Romance Languages.

History

The publication of the Studies in Historical and Political Science continued during the year and the twenty-third series was brought to completion. The titles of the papers included in the volume are as follows: Reconstruction in South Carolina, by J. P. Hollis; Political Conditions in Maryland, 1777-1781, by B. W. Bond, Jr.; English Colonial Administration under Lord Clarendon, 1660-1667, by P. L. Kaye; Justice in Colonial Virginia, by O. P. Chitwood; The Napoleonic Exiles in America, 1815-1819, by J. S. Reeves; Municipal Problems in Medieval Switzerland, by J. M. Vincent.

The twenty-fourth series is in progress and the following numbers have gone to press: The Finances of American Trade Unions, by A. M. Sakolski; Diplomatic Relations of the United States and Russia, by J. C. Hildt; State Rights in North Carolina, 1776-1870, by H. M. Wagstaff.

The Historical and Political Science Association completed its twenty-ninth year. Meetings have been held fortnightly in the Historical Library for the discussion of original papers and current publications in history, political science, and political economy. The full proceedings are published in the University Circular for May, 1906. The principal papers of the year were as follows: Trade Union Rules in the Building Trades, by S. Blum; The Diplomacy and International Law of the Spanish-American War, by H. E. Flack; Diplomatic Relations of the United States and Russia, by J. C. Hildt; the Beneficiary Features of the Railway Unions, by J. B. Kennedy; The Present State of the Theory of Distribution, by
J. H. Hollander; Diplomatic Relations of Russia, the United States and the Holy Alliance, by J. C. Hildt; The Minimum Wage in the Machinists' Union, by W. H. Buckler; Congressional Legislation preliminary to the adoption of the Fourteenth Amendment, by H. E. Flack; Reminiscences of the Johns Hopkins University, by Dr. James Schouler; State Rights in North Carolina, by H. M. Wagstaff; Local Government in the Elizabethan Period, by S. L. Ware; Financial History of Maryland, by H. S. Hanna; The Variations of State Species, by H. J. Ford.

During the Christmas holidays, 1905, the American Historical Association held its twenty-first annual meeting in Baltimore and Washington. The sessions were held for the most part in the halls of the University, and the programme was arranged under the direction of the department of history. Important matters of interest in research and in problems of history-teaching were discussed, and the meeting was held to be one of the most successful in the history of the Association. Two hundred and seventy-six members of that body were present and registered, and among these were many former students of the University.

Dr. James Schouler gave a short course of lectures on the Ideals of the American Republic. This was the first group of a series of lectures which he expects to extend over several years. The topics of this course dealt with the fundamental rights of the citizen, and included discussions of the "Rights of Human Nature"; "Civil Rights"; "Political Rights"; "Racial Types of Equality."

The Albert Shaw lectures on Diplomatic History were given by Dr. Jesse S. Reeves, of Richmond, Indiana. The subject of the course was the Diplomatic Relations of the United States during the Administrations of Tyler and Polk. Dr. Reeves's long researches in the archives of the Department of State at Washington yielded important results, and the lectures were stimulating to further investigation.

Professor John Martin Vincent had general direction of the work of the department and conducted the following courses:

1. Western Europe in the later Middle Age, two hours weekly, during the first half-year. This was a study of social conditions and institutions from the decline of feudalism to the Renaissance.

2. Feudal England, two hours weekly, during the second half-year. The inquiry covered the period between Edward I and Henry VII, and followed the adjustment of feudal society to parliamentary institutions.

3. Historical Writers, Medieval and Modern, one hour weekly through the year. Beginning with Villehardouin and the historians of the Crusades as they emerge from the style of the mediæval chronicle, the lectures endeavored to trace the growth of historical writing and the steps by which it becomes a scientific study of the past.

4. Historical Seminary, two hours in alternate weeks. The topics for
this year had to do chiefly with mediaeval conceptions of law and government. Selections from the Lex Salica were taken first for co-operative exposition and afterward various feudal terms were assigned for detailed study from continental and English sources.

Associate Professor J. C. Ballagh has had charge of the graduate work, directing dissertations and class work, of advanced students in American history. He conducted the following courses:

A. For graduates.

American History, three hours class work weekly, throughout the year. The seminar work and lectures each year cover distinct periods or topics, and are so arranged that the courses given in successive years continue or supplement those of the preceding year. For the past year they were:

1. Seminar of American History, two hours fortnightly, throughout the year. It was designed to make the seminar a working laboratory in historical inquiry. The objects kept constantly in view were (a) practical training in scientific methods of dealing with concrete historical sources in hand; (b) the attainment of substantial results therefrom worthy of publication; (c) stimulation of inquiry in profitable, unworked fields. A cooperative search was made by the director and students for all manuscript and printed sources existing in American repositories relating to the Diplomatic History of the American Revolution, and the results were systematized in bibliographies of divisions of the subject. Supplementary to this a body of nearly one thousand manuscript papers in French and English were critically examined as to originality, authorship, and value of content as yet unprinted material. The reports and bibliographies of individual members of the seminar were subjected to general discussion in the seminar and also to private criticism by the instructor, and the systematized results will form a nucleus of a bibliography of the sources of the period, to be made complete by further search in European and American archives. Besides this work special subjects of original investigation, designed to develop either into doctors' dissertations or published monographs, were reported by advanced members of the seminar from time to time. The sources and methods of the report were subjected to criticism in the seminar and in private by the instructor. The following papers, embodying the results, in the order of presentation, were as follows: The Sources of Early American Diplomatic History, by J. C. Ballagh; The Monroe Mission to France, by Dr. B. W. Bond, Jr., (published in part in the J. H. U. Circular, May, 1906); The Diplomatic Relations of the United States with Russia (to 1824), by J. C. Hildt, (published in abstract, J. H. U. Circular, May, 1906; in full, J. H. U. Studies in Historical and Political Science, May–June, 1906); State Rights in North Carolina, by H. M. Wagstaff, (published in abstract in J. H. U. Circular, May, 1906); The Colonial Post Office, 1710–1789, by C. F.

2. Development of the American Revolution, one hour weekly, first half-year. This course of lectures was coordinated with and supplemented the seminary work on the period. Special attention was paid to the American and English sources from 1754 to 1782, and to tracing the causes and growth of sentiment in England and in the colonies that led to successful colonial revolt.

3. The Sources and Formation of the United States Constitution, one hour weekly, second half-year. Constitutional precedents in American colonial and in European governments were considered in so far as they were sources for features of plans of federal union, suggested or adopted in America. The history of the constitutional changes and the evolution of a federal constitution were traced from the early state and congressional period through the confederation and federal convention to the final ratification of the United States constitution by the states.

4. History of the United States Public Land System, one hour weekly, throughout the year. The development of the land law and practice of the American colonies and early states and their relation to the later land system of the United States was first traced. The creation, extension, and treatment of the United States public domain were then followed to the present, and the significance of important legislation and the public land policy of the United States in our political and economic history were shown.

B. For undergraduates.

1. Civilization and Politics in the Far East (part of Major History), two hours weekly, throughout the year. The most important features of the politics, religions, and foreign relations successively of China, Japan, and India were taught by means of lectures and available texts. Emphasis was given to the interests of the United States in the commercial, political, and religious advancement of the Far East.

Dr. Bernard C. Steiner, Associate in History, has conducted the following courses for undergraduates:

1. English Constitutional History, two hours weekly, through the year. The period covered extended from the beginnings of English history through the nineteenth century, with emphasis upon the development of public law and constitutional practices.

2. American Constitutional History, two hours weekly, through the year. This course, in connection with English constitutional history, provided an advanced major subject, and both were conducted by means of text-books, lectures, and written reports. By the combination of the two it is intended to demonstrate the close connection between English and American constitutional history.
3. Historical Politics, two hours weekly, through the year. The subjects considered explain the growth of political institutions from early beginnings to modern times. This course was intended for students not following the historical group, and formed a part of the course called "History-Economics."

Dr. James M. Wright, Assistant in History, has conducted the following courses:

1. Classical History, four hours weekly, through the year. The political and constitutional history of Greece and Rome were studied by means of translated texts of the great historians, with the aid of modern authorities. Written reports and the preparation of maps were required at convenient periods.

2. Mediaeval and Modern History, two hours weekly, through the year. This subject was given to undergraduates of the second year, and in connection with the Civilization and Politics in the Far East formed the course known as "History Major."

J. M. Vincent,
Professor of European History.

Political Science

The work in Political Science has been conducted by Professor Willoughby, and has had for its primary aim the preparation of advanced students for professional and original work in the fields of Constitutional Law, International Law and Diplomacy, and Political Theory.

Seminary. In addition to the Historical and Political Science Association, at which the completed work of the students of the departments of History, Economics, and Political Science has been presented and criticised, a weekly Political Science Seminary has been held at which papers prepared by the students, dealing with current and unsettled questions of international law and foreign politics, have been read and discussed. Among the papers thus presented were the following: "Suzerainty," by R. T. Crane; "Sovereignty," by R. T. Crane; "The Adoption of the Fourteenth Amendment," by H. E. Flack; "Spanish-American Diplomatic Relations Preceding the War of 1898," by H. E. Flack; "The International Status of China," by R. G. Campbell; "The Russian Advance in the Far East," by S. L. Ware; "The Causes of the Russo-Japanese War, and the Diplomacy preceding the Outbreak of Hostilities," by W. M. Hunley; "The Beginning of the Russo-Japanese War," by E. R. Speeden; "Neutrality in the Russo-Japanese War," by D. S. Freeman; "Volunteer Navies in International Law," by J. C. Hildt; "Contraband

In January, 1906, the head of the department was offered and accepted the position of managing editor of the American Political Science Review, a quarterly published by the American Political Science Association. This journal, the first number of which will appear in November of this year, will be the only magazine published in this country exclusively devoted to a discussion of topics and a review of literature lying within the field of Political Science, as distinguished from the domains of History and Economics.

The following courses of lectures were given:

1. Political Theories and Literature in the United States in the Eighteenth and Nineteenth Centuries. Two hours weekly, first half-year.

2. Political Theories and Literature in England in the Eighteenth and Nineteenth Centuries. Two hours weekly, second half-year. This and the preceding course were two of a series of courses extending over four years in which the attempt is made to cover the history of political theories and of political literature since the earliest times. These theories are sought for not only as explicitly stated in formal political treatises, but as implicit in the political practice and general intellectual characteristics of the periods covered.

3. Introduction to Public Law. Two hours weekly, first half-year.

The nature and classification of public laws were considered, and the different types of political life—centralized states, federal states, confederacies, personal and real unions, protectorates, administered states, colonies, spheres of interest, leased territories, etc.,—were analyzed and illustrated by existing or historical examples. In connection with this course the reading by the class of some standard treatise on International Law was required.

4. Foreign Constitutional Law. Two hours weekly, second half-year.

The more difficult points in the systems of constitutional jurisprudence of Germany, France, Italy, Switzerland, Austria-Hungary, Norway, Sweden, Canada, and the Australian Commonwealth, were considered.

W. W. Willoughby,
Professor of Political Science.
Political Economy

The courses in Political Economy were directed by Professor Hollander, who met students daily, in seminary organization, for formal instruction and for cooperative research. The activity of the Economic Seminary in the investigation of the history, structure, and activities of labor organizations in the United States was supplemented by courses of lectures on certain phases of the history and theory of economic science, and on the nature and influence of particular economic institutions. Dr. George E. Barnett, Associate in Political Economy, assisted in the conduct of the work.

Professor Hollander conducted the following courses:
1. Economic Seminary, weekly, alternating a two-hour evening with a one-hour morning session. During the current academic year, the Economic Seminary has continued its investigation into the history, activities, and influence of labor organizations in the United States. Its membership has been limited to the advanced students preparing for a scientific career in economic study, and its primary design has been the development of sound method in economic research. The material resources necessary for the inquiry have been supplied by the continued generosity of the donor whose original gift made its inception possible.


Appreciable progress has also been made by members of the Seminary in the study of specific aspects of the several questions assigned for investigation. During the summer, field work was carried on in various carefully selected localities, and the data thus collected have since been supplemented and corrected by documentary study and personal interview. A cooperative volume entitled "Studies in American Trade Unionism," edited by Professor Hollander and Dr. Barnett, was published in March by Henry Holt & Co. The studies contained in this volume are the preliminary results of the various investigations in American Trade Unionism heretofore undertaken by members of the Seminary.

Two members of the Seminary received the doctor of philosophy degree in June, 1906. Their dissertations will be published in the next series of the *Johns Hopkins University Studies in Historical and Political Science*, as follows: "Apprenticeship in American Trade Unions," by James M. Motley; "The Financial History of Maryland," by Hugh S. Hanna. Two dissertations by members of the Seminary who received the degree of doctor of philosophy in June, 1905, have been published during the year in the *Studies*, as follows: "The Finances of American Trade Unions," by Dr. A. M. Sakolski (Series xxiv, Nos. 3-4); "National Labor Federations in the United States," by Dr. William Kirk (Series xxiv, Nos. 9-10).

2. The Development of Economic Thought, two hours weekly through the year. A careful historical survey was made of economic thought before Adam Smith, after which attention was given to the so-called "classical" political economy, centering in a critical study of the economic system of David Ricardo. Representative texts were assigned for reading and study.

3. The Theory and Practice of Exchange, two hours weekly through the year. Careful study was made of the theory of money and credit, after which the institutions of the money market were examined. In connection with the course, exercise was afforded in the use of original sources of economic and financial information.

During the year Professor Hollander continued, with the approval of the university authorities, to act as Special Agent of the United States in regard to affairs in Santo Domingo. At the instance of the Department of State he served as financial adviser of the Dominican Republic in the negotiations carried on during the summer for the adjustment of the Dominican debt. In this capacity he also made a brief visit to Europe in October.
Dr. George E. Barnett, Associate in Political Economy, gave a course of lectures on labor legislation, one hour weekly through the year. During the first half-year, a survey was made of the development of factory laws and the law of trade unions, primarily in England and in the United States; in the second half-year, attention was directed to the more recent forms of labor legislation in Germany, Australia, and New Zealand. The course concluded with an examination of the function and sphere of labor legislation in industrial organization.

Mr. John M. Glenn, A. M., President of the Board of Supervisors of City Charities, Baltimore, gave a course of ten lectures on Problems of Relief. The lectures dealt with causes and effects of poverty and crime, methods of prevention and treatment, and the responsibilities of the community in regard to them.

Mr. Clayton C. Hall, LL. B., A. M., of Baltimore, gave a course of lectures on Insurance in its economic and practical aspects. He explained the nature of modern systems of insurance, and discussed the tendency and details of recent insurance legislation in the United States.

Mr. Logan G. McPherson, of Washington, gave a course of lectures on Transportation. He described the working of modern railroad systems and discussed the relation of railroad transportation to industrial organization. Attention was also given to the problem of railroad regulation.

In cooperation with the department of history and political science, opportunity was afforded in the Historical and Political Science Association for the presentation and discussion of original papers in economic science by instructors, advanced students, and invited speakers, and for the review of current publications of importance in these several fields.

A reading class was organized and successfully conducted by the more advanced students of the department for the cooperative study of economic texts and for the critical discussion of current economic literature.

Two numbers of the second series of reprinted Economic Tracts have been issued during the year under the editorship of Professor Hollander, viz. Barbon's Discourse of Trade (1690), and Asgill's Several Assertions Proved (1696). The remaining numbers of the series are in preparation and will be issued in succession.

Further progress was made during the past year in the collection of trade-union documents. The Seminary is now in receipt of all important trade-union journals, proceedings of conventions, constitutions, and similar publications. Through purchase and gift the collection has been augmented by the addition of similar printed material of earlier years, and notably by the addition of complete files of the publications of certain older unions, hitherto unrepresented. These additions have made accessible to students of trade unionism in the United States a larger amount of documentary material
Philosophy and Psychology

than is to be found in any other place in the country. A new edition of the "Bibliography of American Trade-Union Publications," published in 1904 is in preparation and will be issued during the coming year.

The Seminary collection of English economic texts has been strengthened by means of a further gift of money from Mr. A. G. Hutzler. The work of the department has also been aided by generous gifts from Mr. William H. Buckler.

Professor Hollander and Dr. Barnett conducted the following undergraduate courses:

1. Major Political Economy, four hours weekly through the year. The course was divided into two-hour sections extending through the year. In the first section, attention was given to recent economic theories, with Marshall's Principles of Economics as the text-book. In the second section, recent developments in economic organization were studied, with Hobson's Evolution of Modern Capitalism and Henry C. Adams's Finance as the text-books.

2. Minor Political Economy, four hours weekly through the year. This course was divided into two half-year sections. In the first half-year, the industrial development of England and the United States was studied. In the second half-year, systematic instruction was given in the elementary principles of economic science.

3. Elements of Economics, two hours weekly through the year. This course formed a part of "History-Economics," attendance upon which is required of all students not enrolled in Group VI, or who have not taken the minor course in Political Economy. Attention was given during the first half-year to the elements of political economy; during the second half-year, to the practical economic institutions.

Jacob H. Hollander,  
Professor of Political Economy.

Philosophy and Psychology

Graduate Courses

The department has done even and effective work during this year. The membership showed a satisfactory increase in the graduate department, seventeen being enrolled. The courses have been given as announced. As to the work of the instructors individually, the following details may be of sufficient interest to note.

A course of lectures on "Aspects of Post-Kantian Idealism" was delivered—ten lectures in all—by Professor Josiah Royce, of Harvard Uni-
versity, with great appreciation and acceptance. Professor Royce, who is an alumnus of this university, very kindly returned the amount of his fee, and it has been used to endow an alcove in the departmental library, to be known as the "Royce Collection of Philosophical Americana." Other special lectures open to the department were a course of six delivered by Professor Baldwin to the more advanced teachers of Baltimore.

By invitation of the Mexican Government Professor Baldwin spent some days inspecting the educational institutions of that country and counselling the authorities in matters of higher education. He is to prepare a report to the Bureau of Education at Washington, as also one—already submitted to the Department of the Interior—on the Educational Features of the Lewis and Clark Exposition, to which he was sent by the Government as a special agent for this purpose. He also lectured for six weeks in the summer school of the University of California.

As to publication Professor Baldwin reports the finishing and publication of the final volume, in two parts, of his Dictionary of Philosophy and Psychology, a work which has occupied him for nine years; the publication of vol. xiii of the Psychological Review and vol. xi of the Psychological Bulletin; and the completion, for issue in June, 1906, of the first volume of his work on Genetic Logic, called "Thought and Things."

Courses in History of Philosophy and in Ethics have been given by Professor Griffin—one on the History of British Empiricism, and one on Ethical Themes from Hobbes to Bentham.

In the Psychological Laboratory a training course and also original research have been in progress. The topics under investigation, as reported by Professor Stratton, have been: The Influence of Weight upon the Tactual Perception of Space, by Mr. Costin; The Perception of Motion as connected with Local and Temporal Discrimination, by Mr. Furry; The Threshold for Blurring and Doubleness of Parallel Lines, by Mr. Williams; The Color-sensitiveness of Negroes and of Whites, by Dr. Baird; The Perception of Moving and of Motionless Lights, and The Form of the Eye's Paths when Moving in Different Directions,—this last reported in the Psychological Review,—by Dr. Stratton. The Journal Club has held meetings throughout the year, and during the second term there have been weekly lectures by Dr. Stratton on The Nature of the Religious Life.

Dr. Riley, who was reappointed Johnston Scholar in this department, has continued his researches in the principal libraries of the country, and has prepared the first volume of his work on History of Philosophy in America for publication in the winter of 1906-07. He has published several articles in the journals. Mrs. Franklin is working on her proposed volumes.

Dr. Baird who has been engaged in research in the laboratory, has been called to a position in the University of Illinois, and finds that he must accept it. We regret that his connection with the university is to be dissolved.
Undergraduate courses in Logic, Ethics, and History of Philosophy have been conducted by Professor Griffin, and a course in Psychology by Professor Griffin and Professor Stratton.

All candidates for the degree of Bachelor of Arts are required to follow these courses during the last year of residence. The several subjects are distributed through the year as follows: Deductive and Inductive Logic, October 1 till the Christmas recess; Psychology, January 1 to April 15; Ethics, April 15 to June 1; Outlines of History of Philosophy, weekly. Text-books are used in each subject, as affording definite material of acquisition, but informal lectures, informal passages assigned for reading, discussions in the class, the preparation of essays, etc., are largely relied upon in the presentation.

J. Mark Baldwin,
Professor of Philosophy and Psychology.

Edward H. Griffin,
Professor of the History of Philosophy.
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**MATHEMATICS**

**PHYSICS**

**CHEMISTRY**
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## Tabular Statement of Courses

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The academic staff included during the year 1905-06 one hundred and seventy-three teachers, ninety in the philosophical department and eighty-three whose work lay wholly in medicine. The number of students enrolled was seven hundred and twenty, of whom three hundred and four were residents of Maryland, four hundred and five came here from forty-two other States of the Union, and eleven from foreign countries. Among the students were five hundred and thirty already graduated, one hundred and sixty-two of whom were enrolled in the department of Philosophy and the Arts, three hundred and sixty-eight in the department of Medicine. They came from one hundred and eighty colleges and universities. There were one hundred and sixty-three matriculates (or candidates for the degree of Bachelor of Arts), and twenty-seven were admitted as special students, to pursue courses of study for which they seemed fitted, without reference to graduation. The enrolment for the year is summarized below:

**Faculty**

- President and Professors: 41
- Clinical Professors: 7
- Associate Professors: 26
- Associates: 30
- Instructors and Assistants: 49
- Lecturers: 20
- Total: 173

**Students**

- Graduate Students:
  - Fellows by Courtesy: 9
  - Fellows: 22
  - Other Graduate Students in Philosophy: 130
  - Candidates for the degree of M. D.: 263
  - Physicians attending Special Courses: 76
  - Total: 531

- Undergraduates:
  - Candidates for the degree of A. B.: 163
  - Not candidates for a degree: 27
  - Total: 190

- Counted twice: 721
- Not counted twice: 1

Total: 720

During the past thirty years, five thousand four hundred and thirty-six individuals have been enrolled as students, of whom two thousand and seventy-three are registered as from Maryland (including sixteen hundred
and sixty-two from Baltimore), and three thousand three hundred and sixty-three from seventy-seven other States and countries. Three thousand six hundred and fifteen persons entered as graduate students, and eighteen hundred and twenty-one entered as undergraduates. Of the undergraduates, four hundred and eighty-four have continued as graduate students, many of them proceeding to higher degrees. It thus appears that four thousand and ninety-nine persons have followed graduate studies here. The following table shows the enrolment of students in each year:

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Enrolled</th>
<th>Graduates (incl. Fellows)</th>
<th>Matriculants</th>
<th>Non-Matriculants</th>
</tr>
</thead>
<tbody>
<tr>
<td>1876-77</td>
<td>89</td>
<td>54</td>
<td>12</td>
<td>23</td>
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<tr>
<td>1877-78</td>
<td>104</td>
<td>58</td>
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<td>22</td>
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<tr>
<td>1878-79</td>
<td>123</td>
<td>65</td>
<td>25</td>
<td>33</td>
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<tr>
<td>1879-80</td>
<td>159</td>
<td>78</td>
<td>32</td>
<td>46</td>
</tr>
<tr>
<td>1880-81</td>
<td>176</td>
<td>102</td>
<td>37</td>
<td>37</td>
</tr>
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<td>1881-82</td>
<td>175</td>
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<td>45</td>
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<td>1883-84</td>
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<tr>
<td>1884-85</td>
<td>250</td>
<td>174</td>
<td>69</td>
<td>47</td>
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<tr>
<td>1885-86</td>
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<td>184</td>
<td>96</td>
<td>34</td>
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<td>1886-87</td>
<td>378</td>
<td>228</td>
<td>108</td>
<td>42</td>
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<tr>
<td>1887-88</td>
<td>420</td>
<td>211</td>
<td>127</td>
<td>62</td>
</tr>
<tr>
<td>1888-89</td>
<td>394</td>
<td>216</td>
<td>129</td>
<td>49</td>
</tr>
<tr>
<td>1889-90</td>
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<td>130</td>
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<td>276</td>
<td>141</td>
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<td>547</td>
<td>337</td>
<td>140</td>
<td>70</td>
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<td>133</td>
<td>71</td>
</tr>
<tr>
<td>1893-94</td>
<td>522</td>
<td>344</td>
<td>123</td>
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<td>559</td>
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<td>556</td>
<td>406</td>
<td>149</td>
<td>41</td>
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<td>158</td>
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<td>1903-04</td>
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<td>1904-05</td>
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<td>1905-06</td>
<td>720</td>
<td>536</td>
<td>163</td>
<td>27</td>
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</table>
Johns Hopkins University Circular

The following table indicates the geographical distribution of the students:

<table>
<thead>
<tr>
<th></th>
<th>From Maryland</th>
<th>From Other States and Countries</th>
<th>From Maryland</th>
<th>From Other States and Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>1876-77</td>
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<td>273</td>
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<td>1882-83</td>
<td>105</td>
<td>98</td>
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<tr>
<td>1883-84</td>
<td>123</td>
<td>126</td>
<td>1902-03</td>
<td>253</td>
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<tr>
<td>1884-85</td>
<td>130</td>
<td>150</td>
<td>1903-04</td>
<td>254</td>
</tr>
<tr>
<td>1885-86</td>
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<tr>
<td>1886-87</td>
<td>162</td>
<td>216</td>
<td>1904-05</td>
<td>241</td>
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<td>1887-88</td>
<td>199</td>
<td>221</td>
<td>1905-06</td>
<td>254</td>
</tr>
<tr>
<td>1888-89</td>
<td>183</td>
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<td>1906-07</td>
<td>254</td>
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<tr>
<td>1889-90</td>
<td>215</td>
<td>189</td>
<td>1907-08</td>
<td>241</td>
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<td>1890-91</td>
<td>233</td>
<td>238</td>
<td>1908-09</td>
<td>241</td>
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</tbody>
</table>

The enrolment in the medical department is shown by the following table:

<table>
<thead>
<tr>
<th>Candidates for the Degree of M. D.</th>
<th>Doctors of Medicine</th>
<th>Total Enrolment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1893-94</td>
<td>18</td>
<td>65</td>
</tr>
<tr>
<td>1894-95</td>
<td>51</td>
<td>77</td>
</tr>
<tr>
<td>1895-96</td>
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<td>1896-97</td>
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<td>11</td>
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<td>1897-98</td>
<td>167</td>
<td>74</td>
</tr>
<tr>
<td>1898-99</td>
<td>197</td>
<td>55</td>
</tr>
<tr>
<td>1899-1900</td>
<td>211</td>
<td>73</td>
</tr>
<tr>
<td>1900-01</td>
<td>209</td>
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<tr>
<td>1901-02</td>
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<td>129</td>
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<tr>
<td>1902-03</td>
<td>254</td>
<td>82</td>
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<tr>
<td>1903-04</td>
<td>276</td>
<td>78</td>
</tr>
<tr>
<td>1904-05</td>
<td>251</td>
<td>77</td>
</tr>
<tr>
<td>1905-06</td>
<td>223</td>
<td>75</td>
</tr>
</tbody>
</table>

The attendance upon the courses given in the principal subjects has been as follows during the last five years:

<table>
<thead>
<tr>
<th>Subject</th>
<th>1901-02</th>
<th>1902-03</th>
<th>1903-04</th>
<th>1904-05</th>
<th>1905-06</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics and Astronomy</td>
<td>52</td>
<td>66</td>
<td>62</td>
<td>58</td>
<td>44</td>
</tr>
<tr>
<td>Physics</td>
<td>76</td>
<td>68</td>
<td>82</td>
<td>83</td>
<td>71</td>
</tr>
<tr>
<td>Chemistry</td>
<td>92</td>
<td>106</td>
<td>129</td>
<td>126</td>
<td>117</td>
</tr>
<tr>
<td>Geology and Mineralogy</td>
<td>26</td>
<td>25</td>
<td>37</td>
<td>34</td>
<td>62</td>
</tr>
<tr>
<td>Biology (Zoology, Botany, Physiology)</td>
<td>168</td>
<td>211</td>
<td>34</td>
<td>41</td>
<td>44</td>
</tr>
<tr>
<td>Zoology and Botany</td>
<td>173</td>
<td>147</td>
<td>128</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zoology</td>
<td>96</td>
<td>95</td>
<td>85</td>
<td>77</td>
<td>116</td>
</tr>
<tr>
<td>Physiology</td>
<td>30</td>
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<td>40</td>
<td>28</td>
<td>35</td>
</tr>
<tr>
<td>Pathology and Bacteriology</td>
<td>85</td>
<td>83</td>
<td>82</td>
<td>85</td>
<td>76</td>
</tr>
<tr>
<td>Greek</td>
<td>60</td>
<td>63</td>
<td>63</td>
<td>66</td>
<td>65</td>
</tr>
<tr>
<td>Latin</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Classical Archeology and Art</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sanskrit, etc.</td>
<td>43</td>
<td>36</td>
<td>33</td>
<td>36</td>
<td>29</td>
</tr>
<tr>
<td>Semitic Languages</td>
<td>49</td>
<td>41</td>
<td>33</td>
<td>31</td>
<td>31</td>
</tr>
<tr>
<td>German</td>
<td>143</td>
<td>169</td>
<td>188</td>
<td>193</td>
<td>143</td>
</tr>
<tr>
<td>French, Italian, and Spanish</td>
<td>107</td>
<td>95</td>
<td>85</td>
<td>77</td>
<td>116</td>
</tr>
<tr>
<td>English and Anglo-Saxon</td>
<td>149</td>
<td>162</td>
<td>153</td>
<td>171</td>
<td>143</td>
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<tr>
<td>History, Economics, and Politics</td>
<td>114</td>
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<td></td>
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<tr>
<td>History</td>
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<td>89</td>
<td>108</td>
<td>88</td>
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<tr>
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<td>Political Economy</td>
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<td>71</td>
<td>70</td>
<td>69</td>
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<tr>
<td>Philosophy</td>
<td>57</td>
<td>84</td>
<td>82</td>
<td>49</td>
<td>74</td>
</tr>
</tbody>
</table>

*Including only the courses offered to graduates in medicine.
The degree of Bachelor of Arts was conferred during the year upon forty-eight candidates, the degree of Doctor of Medicine upon eighty-five, and thirty-two were advanced to the degree of Doctor of Philosophy. Since degrees were first conferred, in 1878, nine hundred and twenty persons have attained the Baccalaureate degree, seven hundred and twenty-one the degree of Doctor of Philosophy, and four hundred and fifty-five the degree of Doctor of Medicine, as appears from the following table,—the whole number of individuals graduated being nineteen hundred and nine:

<table>
<thead>
<tr>
<th>B. A.</th>
<th>Ph. D.</th>
<th>B. A.</th>
<th>Ph. D.</th>
<th>M. D.</th>
</tr>
</thead>
<tbody>
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<td>1877-78</td>
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<td>1892-93</td>
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<tr>
<td>1878-79</td>
<td>3</td>
<td>6</td>
<td>1893-94</td>
<td>41</td>
</tr>
<tr>
<td>1879-80</td>
<td>16</td>
<td>8</td>
<td>1894-95</td>
<td>37</td>
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<tr>
<td>1880-81</td>
<td>12</td>
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<td>1895-96</td>
<td>37</td>
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<tr>
<td>1881-82</td>
<td>15</td>
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<td>1896-97</td>
<td>36</td>
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<tr>
<td>1882-83</td>
<td>10</td>
<td>6</td>
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<td>1883-84</td>
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</tr>
<tr>
<td>1885-86</td>
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<td>1900-01</td>
<td>41</td>
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<tr>
<td>1886-87</td>
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<td>1901-02</td>
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<td>48</td>
</tr>
<tr>
<td>1891-92</td>
<td>41</td>
<td>27</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

920 721 455

Certificates of proficiency in applied electricity were awarded to ninety-one persons from 1889 to 1899.

T. R. Ball,
Registrar.
DEGREES CONFERRED, 1905-06

DOCTORS OF PHILOSOPHY


Arthur Dodge, of Manassas, Va., A. B., William and Mary College, 1900. Subjects: Greek, Latin, and Sanskrit. Dissertation: A Study of the Rhetorical Question in the Attic Orators,—with Special Reference to the Tone of the Style as Affected by the Figure. Referees on Dissertation: Professors Gildersleeve and Spieker.


82
H PORACE EDGAR FlACK, OF CUBA, N. C., A. M., Wake Forest College, 1901. **Subjects:** Political Science, History, and Political Economy. **Dissertation:** The Adoption of the Fourteenth Amendment. **Referees on Dissertation:** Professors Willoughby and Vincent.


Charles Clayton Grove, of Hanover, Pa., A. B., Pennsylvania College, 1900. **Subjects:** Mathematics, Physics, and Italian. **Dissertation:** I. The Syzygetic Pencil of Cubics and a New Geometrical Development of its Hesse Group G216. II. On the Complete Pappus Hexagon. **Referees on Dissertation:** Professors Morley and Dr. Coble.

Hugh Sisson Hanna, of Baltimore, A. B., Johns Hopkins University, 1899. **Subjects:** Political Economy, Political Science, and History. **Dissertation:** A Financial History of Maryland (1789-1848). **Referees on Dissertation:** Professor Hollander and Dr. Barnett.

John Coffey Hildt, of Baltimore, A. B., Johns Hopkins University, 1903. **Subjects:** History, Political Science, and French. **Dissertation:** Early Diplomatic Negotiations of the United States with Russia. **Referees on Dissertation:** Professors Vincent and Ballagh.

Ernest Jenkins Hoffman, of Dallas, N. C., A. B., Davidson College, 1900. **Subjects:** Chemistry, Physical Chemistry, and Physics. **Dissertation:** I. Osmotic Pressure of Cane-Sugar Solutions. II. The Semipermeable Membrane of Copper Cobalticyanide. **Referees on Dissertation:** Professors Morse and Jones.

B. Smith Hopkins, of Owosso, Mich., A. B., Albion College, 1896. **Subjects:** Chemistry, Physical Chemistry, and Physics. **Dissertation:** The Osmotic Pressure of Glucose Solutions, and the Freezing-Point Depressions and Densities of Solutions of Glucose and Cane-Sugar; also Some Experiments on the Osmotic Pressure of Urea Solutions. **Referees on Dissertation:** Professors Morse and Jones.

Edward Pechin Hyde, of Baltimore, A. B., Johns Hopkins University, 1900. **Subjects:** Physics, Mathematics, and Physical Chemistry. **Dissertation:** Talbot's Law as applied to the Rotating Sectored Disk. **Referees on Dissertation:** Professors Ames and Whitehead.

William Lee Kennon, of Jackson, Miss., S. B., Millsaps College, 1900. **Subjects:** Chemistry, Physical Chemistry, and Physics. **Dissertation:** I. Osmotic Pressure of Solutions of Cane-Sugar. II. A Study of Zinc Ferrocyanide as a Semi-permeable Membrane for the Measurement of Osmotic Pressure. **Referees on Dissertation:** Professors Morse and Jones.

LeRoy McMaster, of Walkersville, Md., Ph. B., Dickinson College, 1901. **Subjects:** Chemistry, Physical Chemistry, and Physics. **Dissertation:**
The Conductivity and Viscosity of Solutions of Certain Salts in Water, Methyl Alcohol, Ethyl Alcohol, Acetone, and Binary Mixtures of these Solvents. *Referees on Dissertation*: Professors Morse and Jones.


Degrees Conferred


Doctors of Medicine

Henry Adsit, of Hornellsville, N. Y., A. B., Princeton University, 1902.
Frank C. Ainley, of Des Moines, Ia., S. B., Drake University, 1902.
Vivia Belle Appleton, of Tama, Ia., A. B., Cornell University, 1901.
Herschel Winston Bass, of Asheville, Ala., S. B., Alabama Polytechnic Institute, 1901.
Francis Cooke Beall, of Forth Worth, Tex., S. B., University of Texas, 1902.
Edward Bailey Beasley, of Baltimore, A. B., Johns Hopkins, 1902.
Henry Beeuwkes, of Baltimore, A. B., Johns Hopkins University, 1902.
Julian Raymond Blackman, of Hastings, Neb., A. B., University of Nebraska, 1902.
Edwards Bennett Brown, of Beloit, Wis., A. B., Beloit College, 1901.
Louis Herbert Burlingham, of Willimantic, Conn., A.B., Yale University, 1902.
Charles Metcalfe Byrnes, of Natchez, Miss., S. B., University of North Carolina, 1902.
John Roberts Caulk, of Easton, Md., A. B., St. John's College, 1901.
Frank Higbee Church, of Boonville, N. Y., A. B., Hamilton Coll., 1902.
Oren Howard Cobb, of New York, A. B., Harvard University, 1902.
T. Homer Coffin, of Oskaloosa, Ia., S. B., Penn College, 1901.
Herbert Phalon Cole, of Fergus Falls, Minn., A. B., St. Lawrence University, 1901.
Ernest Samuel Cross, of Exeter, N. H., A. B., Dartmouth, 1901.
Victor Francis Cullen, of Williamsport, Md., A. B., Rock Hill College, 1902.
Richard Nixon Duffy, of Newbern, N. C., A. B., University of North Carolina, 1902.
Francis Fisher Ebersole, of Mount Pleasant, Pa., A. B., Cornell College, 1902.
Eugene Price Gray, of Winston-Salem, N. C., A. B., University of North Carolina, 1902.
Herbert Lee Gray, of Bangor, Me., A. B., Colby College, 1902.
Franklin Webb Griffith, of Upper Marlboro, Md., A. B., Western Maryland College, 1902.
Henry Honeyman Hazen, of Washington, D. C., A. B., Johns Hopkins University, 1902.
Henry Frederic Helmholz, of Milwaukee, Wis., S. B., University of Wisconsin, 1902.
Charles William Hennington, of Buffalo, N. Y., S. B., University of Rochester, 1902.
Minerva Herrinton, of Greenville, Ia., A. B., Cornell College, 1900.
Joseph Henry Hewitt, of Jacksondale, Va., A. B., University of North Carolina, 1899.
Frank Hinman, of Forest Grove, Ore., A. B., Leland Stanford Jr. University, 1902.
Josephine Drummond Hunt, of Lexington, Ky., A. B., Kentucky University, 1899, and A. M., 1902.
Elliott H. Hutchins, of Barstow, Md., A. B., St. John's, 1902.
Clarence C. Ingraham, Jr., of Hartford, Conn., Ph. B., Yale, 1902.
Lawrence Lee Iseman, of Kansas City, Mo., Ph. B., Lafayette, 1902.
William Finney Kellam, of Wachapreague, Va., A. B., Randolph-Macon College, 1902.
Eugene Robert Kelley, of Bangor, Me., A. B., Bowdoin, 1902.
John Hendricken King, of Baltimore, A. B., Johns Hopkins, 1899.
Mary Barker Kingsbury, of Pottsville, Pa., A. B., Wellesley Coll., 1899.
**Degrees Conferred**

<table>
<thead>
<tr>
<th>Name</th>
<th>City, State</th>
<th>University</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joseph Stocking Lewis</td>
<td>Buffalo, N. Y.</td>
<td>A. B., Canisius College</td>
<td>1902</td>
</tr>
<tr>
<td>David Israel Macht</td>
<td>Baltimore, A. B.</td>
<td>Johns Hopkins University</td>
<td>1902</td>
</tr>
<tr>
<td>George Marsden</td>
<td>New Bedford, Mass.</td>
<td>Ph. B., Brown University</td>
<td>1900.0</td>
</tr>
<tr>
<td>Enoch Marvin Mason</td>
<td>Birmingham, Ala.</td>
<td>S. B., Alabama Polytechnic Institute</td>
<td>1900.0</td>
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<tr>
<td>Carl R. Meloy</td>
<td>Springfield, O.</td>
<td>A. B., Wittenberg College</td>
<td>1902.0</td>
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<tr>
<td>Robert Emory Moore</td>
<td>Baltimore, A. B.</td>
<td>Johns Hopkins Univ.</td>
<td>1902.0</td>
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<td>Arthur Henry Morse</td>
<td>Salem, Mass.</td>
<td>A. B., Tufts College</td>
<td>1902.0</td>
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<tr>
<td>Agnes Gordon Murdoch</td>
<td>Baltimore, A. B.</td>
<td>Woman's College of Baltimore</td>
<td>1902.0</td>
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<td>Marie Eleanor Nast</td>
<td>Cincinnati, O.</td>
<td>A. B., Woman's College of Baltimore</td>
<td>1902.0</td>
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<tr>
<td>John Francis Ortschild</td>
<td>Portland, Ore.</td>
<td>A. B., Leland Stanford Jr. University</td>
<td>1899.0</td>
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<tr>
<td>Robert Patek</td>
<td>San Francisco, Cal.</td>
<td>S. B., Univ. of California</td>
<td>1901.0</td>
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<tr>
<td>Isaac Rosenbaum Pels</td>
<td>Baltimore, A. B.</td>
<td>Johns Hopkins Univ.</td>
<td>1902.0</td>
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<td>Damon Beckett Pfeiffer</td>
<td>Williamstown, N. J.</td>
<td>A. B., Princeton University</td>
<td>1902.0</td>
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<td>Benjamin Swayne Putts</td>
<td>Baltimore, A. B.</td>
<td>Johns Hopkins Univ.</td>
<td>1902.0</td>
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<td>Ralph R. Rea</td>
<td>Grundy Center, Ia.</td>
<td>S. B., Iowa State University</td>
<td>1899.0</td>
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<tr>
<td>Francis Hamilton Redewill</td>
<td>Berkeley, Cal.</td>
<td>A. B., University of California</td>
<td>1902.0</td>
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<td>Lawrence Joseph Rhea</td>
<td>University of Texas</td>
<td>S. B., University of Texas</td>
<td>1901.0</td>
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<td>Richard Frederic Lot Ridgway</td>
<td>Cream Ridge, N. J.</td>
<td>A. B., Princeton University</td>
<td>1898.0</td>
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<td>Henry Camp Russ</td>
<td>Hartford, Conn.</td>
<td>A. B., Yale University</td>
<td>1902.0</td>
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<td>Harold Payne Sawyer</td>
<td>Lansingburg, N. Y.</td>
<td>S. B., University of Alabama</td>
<td>1902.0</td>
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<tr>
<td>Edwin Henry Schorer</td>
<td>Plymouth, Wis.</td>
<td>S. B., University of Wisconsin</td>
<td>1902.0</td>
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<tr>
<td>Lamar Seeley</td>
<td>Portland, Ore.</td>
<td>A. B., Williams College</td>
<td>1902.0</td>
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<tr>
<td>Ralph Berger Seem</td>
<td>Bangor, Pa.</td>
<td>Ph. B., Lafayette College</td>
<td>1902.0</td>
</tr>
<tr>
<td>Frank Joseph Sladen</td>
<td>Portland, Ore.</td>
<td>A. B., Yale University</td>
<td>1902.0</td>
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<tr>
<td>Harry Gordon Sloan</td>
<td>Pittsburgh, Pa.</td>
<td>A. B., Washington and Jefferson College</td>
<td>1902.0</td>
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<tr>
<td>Harvey Brinton Stone</td>
<td>Towson, Md.</td>
<td>A. B., Johns Hopkins University</td>
<td>1902.0</td>
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<tr>
<td>Solomon Strouse</td>
<td>Baltimore, A. B.</td>
<td>Johns Hopkins University</td>
<td>1902.0</td>
</tr>
<tr>
<td>Henry Clarke Thacher</td>
<td>Baltimore, A. B.</td>
<td>Yale University</td>
<td>1902.0</td>
</tr>
<tr>
<td>Philip Pickering Thompson</td>
<td>Portland, Me.</td>
<td>A. B., Dartmouth College</td>
<td>1902.0</td>
</tr>
</tbody>
</table>
Harry Norton Torrey, of Creston, Ia., S. B., Knox College, 1900.
Willis Willard Waite, of Brooklyn, Wis., S. B., University of Wisconsin, 1902.
Harold Randall Webb, of Brunswick, Me., A. B., Bowdoin, 1902.
George Howard White, Jr., of Catonsville, Md., A. B., Princeton University, 1902.
Frederick Petheram Wilbur, of Skaneateles, N. Y., A. B., Williams College, 1902.
Nannie Lee Winn, of Clayton, Ala., A. B., Woman's College of Baltimore, 1900.
Gilman Joseph Winthrop, of Tallahassee, Fla., A. B., University of the South, 1902.
Benjamin Edgar Wolford, of St. Louis, Mo., S. B., University of Pennsylvania, 1902.
Samuel Wolman, of Baltimore, A. B., Johns Hopkins University, 1902.

Bachelors of Arts

Carlyle Barton, of Baltimore County, Md.
David Simon Blondheim, of Baltimore.
Allen Strafford Bowie, of Baltimore.
Walter Stewart Brauns, of Baltimore.
Thomas Gorsuch Campbell, of Baltimore County, Md.
Thomas Rodney Chambers, of Baltimore.
Henry Theodore Collenberg, of Baltimore.
James Curlander, of Baltimore.
William Edwin Curley, Jr., of Anne Arundel County, Md.
Horace Hatch Custis, of Washington, D. C.
William Alexander Dickey, Jr., of Baltimore.
Lewis Alan Dill, of Baltimore.
Baruch Mordecai Edlavitch, of Baltimore.

Stanley Strauss Eiseman, of Baltimore.
Thomas Rasin Godey, of Baltimore.
Alvin Greif, of Baltimore.
James Fullerton Gressitt, of Baltimore.
George Mitchell Griffith, of Baltimore.
Edward Lyell Gunts, of Baltimore.
Frederick Home Hack, Jr., of Baltimore.
Ormond Willson Hammond, Jr., of Baltimore.
Conrad Hardecker, of Baltimore.
Joseph Steuart Hill, of Baltimore.
William Randolph Jones, of Baltimore.
John Aubel Kratz, of Baltimore.
Thomas Gresham Machen, of Baltimore.
John Mabry Mathews, of Baltimore.
Thomas Wilbur Meads, of Baltimore.
Carl Killmann Mengel, of Baltimore.
Charles Ferdinand Meyer, of Baltimore.
Edmond Harris Morse, of Baltimore.
Firmadge King Nichols, of Baltimore.
Lewis Bayard Robinson, Jr., of Baltimore.
Thomas DeCoursey Ruth, of Baltimore.
Maurice Roland Schmidt, of Baltimore.
William Herdman Schwatka, of Baltimore.
E. Leland Shackelford, of Ottoman, Va.
Joseph Theophilus Singewald, Jr., of Baltimore.
William Leonard Sioussat, of Baltimore County, Md.
Edward Hinman Sirich, of Baltimore.
William Knepper Skilling, of Lonaconing, Md.
B. Holly Smith, Jr., of Baltimore.
William Conwell Smith, of Baltimore.
Henry William Snyder, of Baltimore.
Johannes Karl Robert Konrad Uhlig, of Baltimore.
Emanuel George Zies, of Baltimore.
Paul Hudson Zinkhan, of Washington, D. C.

(48)
REPORT OF THE DEAN OF THE COLLEGE FACULTY

TO THE PRESIDENT OF THE JOHNS HOPKINS UNIVERSITY:

I have the honor, as Dean of the College Faculty, to submit to you the following report of the undergraduate work of the University for the year 1905-1906.

On November 20th, 1905, a committee, consisting of Messrs. J. S. Ames (chairman), M. P. Brush, L. S. Hulburt, J. M. Vincent, and H. L. Wilson, was appointed by the Board of Collegiate Advisers, to take into consideration the whole matter of undergraduate instruction, and make such recommendations in regard to it as might seem to them advisable. A similar committee had served, with excellent results, a few years previously, and it was thought that the time had arrived for another thorough and comprehensive survey of the entire field. The committee, after careful inquiry and deliberation, presented its report February 16th, 1906. At two subsequent meetings, the report was considered by the Board, and on March 7th it was, with certain modifications, adopted by a unanimous vote.

The most important question with which the committee had to deal was that of the period of residence. The original plans, adopted at the founding of the University, established a three years' course, in the case of those candidates for the degree of Bachelor of Arts who should fully absolve at entrance the requirements for matriculation, these requirements being made, in view of the shortened period of attendance, considerably higher than those of other institutions. The advanced standard of matriculation proved a source of embarrassment. Many applicants were unable to meet it, and were received, if at all, only as "candidates for matriculation," under the disability of "conditions" more or less serious. About one-half of those entering each year have been thus burdened. As a means of relief, a scheme of studies corresponding, in general, to the freshman year of other colleges was organized a few years ago, in order that persons possessing the ordinary college preparation might be admitted, free of drawbacks, and might complete their matriculation under instruction provided by the University. This plan only partially fulfilled its purpose. Those availing themselves of it were not enrolled in the several "groups," but in what was termed the "Preliminary Year," and were, not unnaturally, looked upon as preparatory students rather than full members of the University. Moreover, the normal length of residence being understood to be
three years, many—quite without reason—felt it to be discreditable to 
remain longer. It was apparent that the only effective way of dealing 
with the situation was through a rearrangement of the program of studies 
on the basis of a four years' residence, thus making possible a reduction of 
the matriculation requirements to the standard maintained at other institutions. It was felt to be important to do this, however, in such a way as 
not to take away the privilege, enjoyed from the first, of obtaining the 
Bachelor's degree in three years. The regulations which have been adopted 
secure this opportunity to all who are justified in claiming it. A student 
may (1) anticipate certain of the courses by special examination at entrance; 
(2) present himself, at the beginning of an academic year, for examination 
in a single course, provided the Committee on Admission, being satisfied 
that the student can obtain competent instruction, has authorized him, in 
advance, to prepare this course during the summer vacation; (3) take, 
under certain conditions, in any year of residence except the first, a greater 
number of courses than is called for in the program; (4) offer nineteen 
courses for graduation instead of twenty, provided a certain standing has 
been maintained, each year, since entrance. It is expected that, under the 
new arrangements, the length of residence, for the majority, will be four 
years, but that many will obtain graduation in a shorter time. One of the 
best features of the undergraduate instruction at the Johns Hopkins has 
been the liberty afforded each individual to push forward as rapidly as his 
attainments and abilities would allow, unrestrained by the requirements of 
the ordinary class system; this liberty is fully preserved.

A number of other changes, of greater or less importance, were recom-
mended by the committee and adopted by the Board.

Instead of seven groups, as heretofore, there are to be five:—I, Ancient 
Languages; II, Modern Languages; III, History and Political Economy; 
IV, Mathematics and Physics; V, Chemistry, Biology, and Geology. This 
corresponds better to the choices actually made by the students than did the 
old classification.

The unit of time for each course is reduced from four meetings each 
week, of fifty minutes each, through the year, to three, except in certain 
cases in which four are still allotted. When the scheme of studies was 
revised, a few years ago, the unit was reduced from five meetings each week 
to four: this further reduction makes room for a considerable number of 
new courses, without, it is believed, involving the danger of too great 
distraction of attention.

In order to increase the efficiency of the system of "advisers," many of 
the academic staff who have not hitherto acted in this capacity are called 
into service. In this way it is hoped to engage the interest of all the 
instructors in the undergraduate students, and to make it possible for the 
adviser to do more for the young men assigned to him than is practica-
ble when the number is large.
Provision is made for informal reports, in November, February, and May, in addition to the Official Reports heretofore required at Christmas, at Easter, and at the end of the year. Through these reports, the advisers can keep themselves fully informed of the progress, and the needs, of their students.

The "Board of Collegiate Advisers" changes its title to the "Board of Collegiate Studies." This change not only has the advantage of conformity to the title, "Board of University Studies," but takes cognisance of the fact that, under the present plans, persons may serve as advisers who are not members of the College Board. Three standing committees are added to the Executive Committee—hitherto the sole permanent committee of the Board—namely, the Committee on Admission, the Committee on Scholarships and Honors, and the Committee on Assignment of Advisers, the Dean of the College Faculty being ex officio a member of each.

Other modifications of method resulting from the work of the committee may be passed over without mention; enough has been said to show with how much thoroughness the questions have been considered. The reexamination has led to no essential changes, but has served to confirm our belief that the "group" arrangement of studies, as established at this University, affords the best practicable solution of the problem of undergraduate instruction.

Edward H. Griffin,
Dean of the College Faculty.
REPORT OF THE DEAN OF THE MEDICAL FACULTY

TO THE PRESIDENT OF THE JOHNS HOPKINS UNIVERSITY:

I beg leave to submit the following report of the Medical Department for the session of 1905-06. At the beginning of the session seventy-one applications for entrance were accepted, but only sixty-four of the candidates presented themselves for matriculation. Of this number six were admitted to advanced standing in the second year, on the presentation of satisfactory certificates covering their preparatory and medical courses, and on passing satisfactory examinations upon the subjects taught in our first year. The enrolment in our first-year class was therefore fifty-eight, making the smallest class received since the session of 1899-1900. The total enrolment of students who were candidates for the degree of Doctor of Medicine was 293 as compared with 291 for the previous session. Twenty-five of these students were women. Special courses given to graduates in medicine were attended by sixty-three physicians, so that the total number of students in attendance amounted to 356. The policy inaugurated by the Medical Faculty, some years ago, of substituting for the general elementary courses, formerly given to physicians, more advanced or special courses, has given most satisfactory results. While the total number of physicians in attendance has suffered a diminution in consequence of this arrangement, the character of the work has been improved, and it is believed that those taking the courses have derived more advantage from them. Most of the special courses now given to graduates are limited to a small number, and involve practical laboratory or clinical work in which the student receives individual instruction and supervision from the teacher in charge. The courses given to the undergraduate students who are candidates for our degree of Doctor of Medicine have not varied materially from those offered in the preceding session. The usual excellent spirit has prevailed in this work, on the part of the students as well as of the members of the teaching staff.

The second course of lectures on the Herter Foundation was delivered by Professor Hans Ilorst Meyer, M. D., Director of the Pharmacological Institute, University of Vienna, on Wednesday and Thursday, October 4th and 5th, 1905, at 4.30 p. m., in the auditorium of the Physiological Building. The lectures were given in English, and bore upon the relations of pharmacology to physiological investigations. These lectures were attended not only by the student body and many physicians of Baltimore,
but by representative physicians and teachers from other cities. They were afterwards published in the Johns Hopkins Hospital Bulletin, Vol. XVI. No. 176, and in Science.

I am very glad to be able to report that the Library of the Medical Department received two very valuable gifts during this year. On the suggestion of Professor Williams, Mr. Francis M. Jencks, of Baltimore, purchased and presented to the University the unique collection of works on Teratology which had been gathered by Professor Friedrich Ahlfeld, of Marburg, Germany, in connection with the preparation of his well-known work upon this subject. The collection consists of 936 books and monographs comprising everything of historical importance written upon the subject. These books have been catalogued and placed in a special case. They form an interesting addition to the library and one which it would have been impossible for us to make from our limited library appropriation. This latter appropriation is needed each year for the purchase of current journals and books, and we cannot hope for the extension of our library into the interesting and important field of historical medicine, otherwise than through such generous acts on the part of friends of the University. News was received during the year of an even more valuable gift of books, also of an historical character, which were purchased by Mr. William A. Marburg, of Baltimore, on the suggestion of Professor Osler. As these books had not arrived at the end of the session, a more detailed statement of their character may be postponed for a subsequent report. I should add, also, that, as in former years, a number of the medical professors have kindly made personal gifts to the library of valuable books and journals. Our library is increasing in importance and in service with each succeeding year. The appropriation made yearly for its maintenance is insufficient to meet all the just demands of our students and staff, and the rooms assigned to it, while comfortable and practical, might be greatly improved. It is to be hoped that before long we shall be able to provide appropriate fire-proof quarters for this collection, and to obtain by gifts or otherwise a more adequate income for its maintenance and extension.

At the Commencement exercises in June, eighty-four students were awarded the degree of Doctor of Medicine. Of this number the twelve whose records were the highest for the entire four years, were nominated to the Trustees of the Johns Hopkins Hospital for appointment as House Officers for the ensuing year. The twelve students who won this honor are, in order of merit, as follows: F. C. Beall, H. F. Helmholz, F. J. Sladen, H. B. Stone, F. C. Ainsley, C. W. Hennington, J. F. Ortschild, F. W. Bancroft, E. R. Kelley, H. C. Thacher, S. Strouse, and E. S. Cross.

Owing to the fact that some of this number had accepted hospital positions elsewhere or had made other plans, the following students, in order of merit, were nominated to fill possible vacancies: R. N. Duffy, E. M. Mason, G. H. White, Jr., R. L. Langnecker, and C. B. Ingraham, Jr.
In addition to the graduates who received these nominations, the following members of this class have obtained positions in hospitals or medical schools:

Vivia Belle Appleton, A. B., Cornell University, 1901, and Med. Dept. 1901-02.—Interne, New England Hospital Dispensary for Women and Children, Boston.


Edward Bailey Beasley, A. B., Johns Hopkins University, 1902.—Resident Physician, The Leigh Hospital, Norfolk, Va.

H. Beuwkes, A. B., Johns Hopkins University, 1902.—Interne, Hudson Street Hospital, New York.

Julian Raymond Blackman, A. B., University of Nebraska, 1902.—Assistant in Physiology, University of Wisconsin, Madison.

Phoebe May Bogart, A. B., Wellesley College, 1902.—Interne, Woman's Hospital, Detroit, Mich., until January 1907; from January 1907, Interne, The Syracuse Hospital, Syracuse, N. Y.

Louis Herbert Burlingham, A. B., Yale University, 1902.—Externe, Massachusetts General Hospital, Boston.

Charles Metcalfe Byrne, S. B., University of North Carolina, 1902.—Instructor in Anatomy, University of Virginia, Charlottesville.

John Roberts Caulk, A. B., St. John's College, 1901 ; Graduate Student, Georgetown University, 1901-1902.—Interne, Union Protestant Infirmary, Baltimore.

Frank Highbee Church, A. B., Hamilton College, 1902, and A. M., 1905.—Interne, Utica General Hospital, Utica, N. Y.

T. Homer Coffin, S. B., Penn College, 1901, and M. S., 1905.—Instructor in Pathology, the New York Post Graduate Hospital, New York.

Egerton Lafayette Crispin, Ph. B., Illinois College, 1902.—Resident Pathologist, Pennsylvania Hospital, Philadelphia.

Victor Francis Cullen, A. B., Rock Hill College, 1902.—Interne, St. Joseph's Hospital, Baltimore.

Gaston Duy, S. B., Florida State College, 1902.—Interne, The New York Lying-in Hospital (until November 1906); Interne, St. John's Riverside Hospital, Yonkers, N. Y.

Francis Fisher Ebersole, A. B., Cornell College, 1902.—Interne, King's County Hospital, Brooklyn, N. Y.

Eugene Price Gray, A. B., University of North Carolina, 1902.—Interne, James Walker Memorial Hospital, Wilmington, N. C.

Franklin Webb Griffith, A. B., Western Maryland College, 1902, and A. M., 1905.—Externe in Gynecology, the Johns Hopkins Hospital and Dispensary.

Arthur Heywood Griswold, A. B., Harvard University, 1902.—Interne, The Hartford Hospital, Hartford, Conn.
Henry Honeyman Hazen, A. B., Johns Hopkins University, 1902.—Interne, Garrett Hospital for Children; Clinical Assistant, Phipps Dispensary, and Resident Surgeon, Good Samaritan Hospital, Baltimore.

Henry Frederic Helmholz, S. B., University of Wisconsin, 1902; Summer Quarter, University of Chicago, 1902.—Fellow in Pathology, Johns Hopkins University.

Minerva Herrington, A. B., Cornell College, 1900; Graduate Student, Lewis Institute (Chicago), 1902.—Physician, Evening Dispensary for Women and Children, Baltimore.

Joseph Henry Hewitt, A. B., University of North Carolina, 1899, and Medical Department, 1901-1902; Harvard Medical School, Summer of 1902.—Resident Pathologist, Charity Hospital, Cleveland, O.


Josephine Drummond Hunt, A. B., Kentucky University, 1899, and A. M., 1902.—Interne, The Syracuse Hospital, Syracuse, N. Y.

Elliott H. Hutchins, A. B., St. John’s College, 1902.—Interne, Church Home and Infirmary, Baltimore.

Lawrence Lee Iseman, Ph. B., Lafayette College, 1902.—Junior Resident, Kensington Hospital for Women, Philadelphia.

Eugene Robert Kelley, A. B., Bowdoin College, 1902.—Interne, Carney Hospital, Boston.

John Hendricksen King, A. B., Johns Hopkins University, 1899, and Graduate Student, 1899-1902.—Voluntary Assistant in Medicine, Johns Hopkins University.


Wilhelm Edmund Harmon Krechting, A. B., Princeton University, 1902.—Assistant House Surgeon, New York Lying-In Hospital, New York.

Andre Edward Lee, A. B., Leland Stanford Jr. University, 1902.—Assistant Surgeon U. S. N., Mare Island Navy Yard Hospital, Cal.

Joseph Stocking Lewis, A. B., Canisius College, 1902; Graduate Student, Cornell University, Summer of 1902.—Interne, German Hospital, New York.

Carl L. Meloy, A. B., Wittenberg College, 1902, and A. M., 1903.—Instructor in Pathology, University of Virginia, Charlottesville.

Robert Emory Moore, A. B., Johns Hopkins University, 1902.—Interne, King’s County Hospital, Brooklyn, N. Y.

Arthur Henry Morse, A. B., Tuft’s College, 1902; Harvard Medical School, Summer of 1903.—Pathological Interne, Rhode Island Hospital, Providence.

Agnes Gordon Murdoch, A. B., Woman’s College of Baltimore, 1902.—Interne, New England Hospital for Women and Children, Roxbury, Mass.
Report on the Medical Department


Isaac Rosenbaum Pels, A. B.; Johns Hopkins University, 1902.—Interne, The Jewish Hospital, Philadelphia.

Damon Beckett Pfeiffer, A. B., Princeton University, 1902.—Interne, The German Hospital, Philadelphia.

Benjamin Swayne Putts, A. B., Johns Hopkins University, 1902.—Assistant Resident Pathologist, Allegheny General Hospital, Allegheny, Pa.

Francis Hamilton Redewill, S. B., University of California, 1902.—Surgical Interne, Sheltering Arms Hospital, Charleston, W. Va.

Richard Frederic Lot Ridgway, A. B., Princeton University, 1898, and A. M., 1902.—Resident Physician, Harrisburg Hospital, Harrisburg, Pa.

Henry Camp Ross, A. B., Yale University, 1902.—Resident Pathologist, The Lakeside Hospital, Cleveland, O.

Edwin Henry Schorer, S. B., University of Wisconsin, 1902.—Rockefeller Institute for Medical Research, New York, N. Y.

Lamar Seeley, A. B., Williams College, 1902.—Interne, St. Luke's Hospital, New York, N. Y.

Ralph Berger Seem, Ph. B., Lafayette College, 1902.—Interne, St. Luke's Hospital, South Bethlehem, Pa.

Harry Gordon Sloan, A. B., Washington and Jefferson College, 1902.—Interne, The Lakeside Hospital, Cleveland, O.

Henry Clarke Thacher, A. B., Yale University, 1902, M. S., 1904, and Medical Department, 1902-1903.—Interne, Bellevue Hospital, New York.

Philip Pickering Thompson, A. B., Dartmouth College, 1902; Medical School of Maine, 1902-1903.—Interne, Carney Hospital, Boston.

Willis Willard Waite, S. B., University of Wisconsin, 1902.—Pathological Interne, Blackwell's Island, N. Y.

Harold Randall Webb, A. B., Bowdoin College, 1902.—Resident Physician, City Hospital, Waltham, Mass.

Frederick Petheram Wilbur, A. B., Williams College, 1902.—Interne, City Hospital, Blackwell's Island, New York.

John Arthur Winter, A. B., University of Michigan, 1902.—Interne, The Lakeside Hospital, Cleveland, O.

Gilman Joseph Winthrop, A. B., University of the South, 1902.—Interne, Gouverneur Hospital, New York, N. Y.

Benjamin Edgar Wolfort, S. B., University of Pennsylvania, 1902, and Medical Department, 1901-1902.—Interne, Kingston Avenue Hospital, New York, N. Y.

Samuel Wolman, A. B., Johns Hopkins University, 1902.—Assistant in Medicine, Johns Hopkins University.

Peregrine Wroth, Jr., A. B., Johns Hopkins University, 1902.—Interne, Union Protestant Infirmary, Baltimore.
The following members of the faculty resigned their positions during the year: Dr. Joseph Erlanger, Associate Professor of Physiology, at present Professor of Physiology in the University of Wisconsin; Dr. Alexander C. Abbott, Lecturer on Hygiene; Dr. Charles H. Bunting, Associate in Pathology, at present Professor of Pathology in the University of Virginia; Dr. George L. Streeter, Instructor in Anatomy, at present Associate Professor of Anatomy, Wistar Institute, Philadelphia; Dr. H. Warren Buckler, Assistant in Obstetrics; Dr. Campbell P. Howard, Assistant in Medicine; and Dr. Stephen Rushmore, Assistant in Gynecology. Leave of absence was granted to Dr. H. T. Marshall, Instructor in Pediatrics, to assume the position of Pathologist in the Bureau of Science, Manila, P. I.

The following students withdrew during the year on account of ill health and other causes: Miss M. M. Daniels, Miss W. von Gerber, Mr. L. C. Murphy, Mr. W. M. Thalheimer and Miss H. Worthington.

I regret to report that two deaths occurred among our alumni during the year: Mabel Wells, Class of 1900, on March 3, 1906, and John Bruce MacCallum, Class of 1900, on April 6, 1906. Dr. MacCallum had formerly been a member of the staff of the anatomical department, and at the time of his death was an instructor in the University of California. A special meeting of the Faculty was called to take action upon his death. The meeting was addressed by Professors Welch and Barker, who gave an account of the career and work of Dr. MacCallum, and expressed their high appreciation of his ability and personal qualities. An appropriate minute was then presented by Dr. Lewis and adopted at the meeting. This minute was recorded and was also published in the *Johns Hopkins Hospital Bulletin*, May, 1906, p. 169.

W. H. Howell,

Dean.
REPORT ON THE OFFICIAL STATE BUREAUS CONNECTED WITH THE UNIVERSITY

TO THE PRESIDENT OF THE JOHNS HOPKINS UNIVERSITY:

I submit herewith a report of the work of the official State Bureaus conducted under the auspices of the Geological Department.

THE MARYLAND GEOLOGICAL SURVEY

The Maryland Geological Survey, which has been in existence somewhat over ten years, having been established by an Act of the General Assembly in March, 1896, has been in charge of Professor Clark as State Geologist since its establishment. The appropriations for the first two years amounted to $10,000 annually, but this was increased in 1898 by the passage of two additional Acts, one providing for the making of topographic maps for which $5,000 annually was appropriated, and the other providing for the investigation of the subject of road-building and the preparation of plans and specifications for highway construction for which $10,000 annually was appropriated. In 1904 a much more important Act known as the State Aid Highway Act was passed, the administration of which was placed in the control of the Geological Survey. By this Act $200,000 is appropriated annually by the State to meet one-half the cost of improved highways, the other half of the expense being met by the county authorities. In 1906 the General Assembly appropriated $30,000 annually for 1906, 1907, and 1908, as well as providing for the use of convicts in the House of Correction, for the construction of a modern highway from Baltimore to Washington. With these increases in the annual appropriations have come added duties and increased responsibilities. The work of the Survey now covers a wide field, including geology, topographic surveying, terrestrial magnetism, forestry, hydrography, agricultural soils, and highway engineering.

The geological work which is directly under the charge of the State Geologist, is divided into three divisions covering the areas of the Piedmont Plateau, the Appalachian Region, and the Coastal Plain. Investigations are in progress in all these districts and important areas in each have been thoroughly studied. Reports and maps have been already issued for Allegany, Garrett, and Cecil counties, while similar publications for Calvert and St. Mary's counties are now in press. In the conduct of the geological work the aid of numerous experts in various portions of the country has been sought, particularly in the study of the various groups of fossil plant and
animal remains. Monographs on the Eocene and Miocene deposits of the State have already been published, a report on the Pliocene-Pleistocene is now in press, and similar reports on the Devonian, on the Carboniferous-Permian, and on the Cretaceous deposits are now in progress of preparation.

The topographic work has been continued in cooperation with the U. S. Geological Survey. The results of this work are presented to the public in the form of topographic and election-district maps, which show in a very detailed manner not only the relief of the land but all cultural features as well. Maps of Allegany, Garrett, Harford, Cecil, Kent, Worcester, Prince George's, Calvert, St. Mary's, Queen Anne's, Caroline, Talbot, Wicomico, and Somerset counties have already been issued, as well as a map of Baltimore and vicinity. Surveys are also completed for Baltimore, Dorchester, Anne Arundel, and Howard counties, and maps for the first two of these counties will be issued during the coming year. More than three-fourths of the State has now been surveyed on the scale of one mile to the inch.

The investigations in terrestrial magnetism, hydrography, agricultural soils, and forestry have been prosecuted vigorously by cooperation with several of the national bureaus. The forestry work will be carried on in future by the newly-organized State Forestry Bureau, but the Geological Survey will continue to publish the county reports and maps on this subject.

The highway work of the Survey is under the immediate direction of Mr. W. W. Crosby, as Chief Engineer. He has a large force of assistants who are actively engaged in the preparation of plans and specifications for new highways and in the supervision of their construction. The State Aid Road Act which became operative on January 1, 1905, has grown in favor throughout the State and much of the opposition aroused during the early stages of the work has gradually disappeared. Surveys, followed by plans and specifications on which estimates for costs of construction are based, have been made during the past eighteen months for 110 miles of road, the work on over 42 of which has already been completed. This is an excellent showing and it is expected that a still larger mileage will be surveyed and built during the coming year.

Work has already been started on the Baltimore and Washington road under the Act of 1906, and about five miles of the thirty to be built will be completed the present season.

Numerous tests were also made by the Highway Division, in its testing laboratory, of materials for city streets and country roads, a work which has resulted in much more intelligent methods of construction being employed throughout the State. The city of Baltimore has for several years submitted to the Highway Division samples of the vitrified brick and crushed stone which it proposed using on the city streets. By this means the city has been protected against the purchase of inferior materials. Similar tests of cement for State and municipal construction have also been made from time to time. The aid which the Highway Division is rendering to the various
State Bureaus

The Maryland Weather Service

The Maryland Weather Service has been in existence fifteen years, having been organized in May, 1891, under the joint auspices of the Johns Hopkins University, the Maryland Agricultural College, and the U. S. Weather Bureau. It was incorporated as an official organization by an Act of the General Assembly in 1892, which was approved by the Governor in April of that year. The State Service under this Act was permanently established at the Johns Hopkins University under the direction of a board of control, who are nominated by the heads of the three institutions above mentioned and subsequently commissioned by the Governor. The appropriation for the maintenance of the bureau has been $2,000 annually from the beginning, the fund being employed mainly for investigations concerning the climatology of the State. Professor Clark is the chief of the bureau.

The investigations of the Maryland Weather Service during the past year have mainly centered around the study which is being given to the climate of Baltimore by Dr. Fassig of the U. S. Weather Bureau, who is Associate in Meteorology in the University. This work is now largely in press and will be published as Volume II of the Maryland Weather Service reports.

Maryland Forestry Bureau

An Act was passed by the General Assembly of 1906 providing for the establishment of a State Board of Forestry of seven members, four of whom are ex officio the same as the Commissioners of the Geological Survey, the fifth is the State Geologist, while the sixth and seventh are appointed by the Governor. Professor Clark is the Executive Officer of this Board, and has been authorized by the Board to see that the provisions of the Act are carried out. Mr. F. W. Besley is the State Forester. Under this Act $3,500 is annually appropriated for forest studies and for the education of the people of the State in matters pertaining to forest management. The investigations under this Act have been in operation only for a few months, but the work of the Bureau is already attracting the attention of the forestry interests of the State. The forestry survey already started by the Geological Survey will be continued in cooperation with the newly established Forestry Bureau, the county reports and maps still continuing to be published by the Geological Survey.

Mason and Dixon Line Re-Survey

By an Act of the General Assembly of 1906, provision was made for the re-survey and re-marking of the Mason and Dixon Line, which had become partially obliterated in the lapse of over a century since the boundary
between Pennsylvania and Maryland was first established. Many of the monuments which marked the line had become destroyed or otherwise displaced, and an appropriation of $5,000 was made by each of the States of Maryland and Pennsylvania to re-locate and re-mark the line. Professor Clark was appointed Commissioner on behalf of the State of Maryland, and since the year 1900 has been engaged with the Commissioner on behalf of the State of Pennsylvania in carrying out the provisions of the Act authorizing the survey. The work has been directly in charge of an expert engineer detailed by the Superintendent of the U. S. Coast and Geodetic Survey, his assistants being selected in part from Maryland and in part from Pennsylvania. The survey is now completed and a report has been prepared by the Commissioners for submission to the Governors of the two States. It will be published by the State of Maryland as one of the volumes of the Geological Survey.

Much aid has been rendered the State official organizations above mentioned by the chiefs of the various national scientific bureaus. Particular reference should be made to the cooperation granted by Hon. Charles D. Walcott, Director of the U. S. Geological Survey, Professor Willis L. Moore, Chief of the U. S. Weather Bureau, Professor O. H. Tittmann, Superintendent of the U. S. Coast and Geodetic Survey, and Mr. Gifford Pinchot, Chief of the U. S. Forest Service, all of whom have cordially supplemented the work of the State bureaus in highly important ways. The work of the State organizations is in progress along so many lines, that it affords admirable opportunities to the advanced students of the geological department to obtain much-desired practical experience both in the field and in the laboratory; at the same time the State has received a large return for its outlay at little cost.

WM. BULLOCK CLARK,  
State Geologist and Director.
ABSTRACT OF THE REPORT OF THE JOHNS HOPKINS PRESS

The several serials have been continued through the year as follows:

Of the Studies in Historical and Political Science, edited by Professor Vincent, Professor Hollander, and Professor Willoughby, the twenty-third series is now in progress. The issues since the last report have included papers on Municipal Problems in Medieval Switzerland, by J. M. Vincent; Spanish-American Diplomatic Relations preceding the War of 1898, by H. E. Flack; Early Diplomatic Negotiations of the United States with Russia, by J. C. Hildt; Finances of American Trade Unions, by A. M. Sakolski. Papers by H. M. Wagstaff on State Rights and Political Parties in North Carolina and by W. Kirk on National Labor Federations in the United States are now ready for issue.

Of the American Journal of Mathematics, edited by Professor Morley, volume twenty-seven, 427 pages, quarto, has been completed, and three numbers of volume twenty-eight have been issued. A portrait of Professor Georg Cantor was issued with the volume.

Of the American Chemical Journal, edited by President Remsen, volume thirty-five, 560 pages, octavo, has been completed, and three numbers of volume thirty-six have been issued since the commencement of the current year.

Of the American Journal of Philology, edited by Professor Gildersleeve, volume twenty-six, 504 pages, octavo, has been completed, and two numbers of volume twenty-seven have been issued.

Of the Modern Language Notes, edited by Professor Elliott, volume twenty, 256 pages, quarto, has been completed, and six numbers of volume twenty-one have been issued.

Of Terrestrial Magnetism and Atmospheric Electricity, edited by Dr. Bauer, volume ten, 294 pages, octavo, has been completed, and two numbers of volume eleven have been issued.

Nos. 181 to 189, 752 pages, octavo, of the University Circulars have been issued since the last report. These Circulars are now issued as part of the official publications of the University. They have contained, in addition to scientific papers, the Catalogue of the Medical Department, issued in October; the President's Report, issued in January; and the Register of the University, issued in June, together with class-lists, programmes, etc.

Of the second series of Reprints of Economic Tracts, under the editorial direction of Professor Hollander, the second number, "Several Assertions
Proved, in order to create another species of money than gold and silver" by John Asgill, was issued during the year, and other numbers are in press.

Of the Johns Hopkins Hospital Reports, no volume has appeared. Volumes thirteen, fourteen, and fifteen are all nearly ready for issue.

Of the Bulletin of the Johns Hopkins Hospital, volume sixteen, 422 pages, folio, with numerous illustrations, has been completed, and nine numbers of volume seventeen have appeared. An Index to volumes one to sixteen of the Bulletin (44 pages, folio) has been carefully prepared and recently issued.

Of the Contributions to Assyriology, edited by Professor Haupt, number five, completing the fifth volume, has appeared during the year. This volume contains 716 pages with numerous illustrations.

The system of exchanges has been conducted as in previous years.

There have been received, in accordance with the regulations, 150 copies of the dissertations accepted for the degree of Doctor of Philosophy, from:

Allen, S. J.—The Velocity and Ratio $e/m$ for the Primary and Secondary $\beta$ Rays of Radium.

Baden, W. W.—The Principal Figures of Language and Figures of Thought in Isaeus and the Guardianship—Speeches of Demosthenes.

Barret, L. C.—The Kashmirian Atharva Veda, Book I.

Bingham, E. C.—The Conductivity and Viscosity of Solutions of Certain Salts in Mixtures of Acetone with Methyl Alcohol, with Ethyl Alcohol and Water.

Bonsteel, J. A.—The Soils of St. Mary's County, Md., showing the Relationships of the Geology to the Soils.


Canter, H. V.—The Infinitive Construction in Livy.

Carver, W. B.—On the Cayley-Veronese Class of Configurations.

Cobb, P. H.—A Further Investigation of the Chlorides of Orthosulpho-benzoic Acid.

Cowles, R. P.—Phoronus Architecta.

Cragin, F. W.—Paleontology of the Malone Jurassic Formation of Texas.

Crumley, J. J.—On the Social Standing of Freedmen as indicated in the Latin Writers.


Elderkin, G. W.—Aspects of the Speech in the Later Greek Epic.

Ember, A.—The Pluralis Intensivus in Hebrew.


Gudger, E. W.—The Breeding Habits and the Segmentation of the Egg of the Pipefish.

Hildt, J. C.—Early Diplomatic Negotiations of the U. S. with Russia.

Hoffman, W. E., Jr.—Camphoroxylic Acid Derivatives.

Hope, E. W.—The Language of Parody: A Study in the Diction of Aristophanes.

King, F. P.—Basic Magnesian Rocks associated with the Corundum Deposits of Georgia.

Loving, R. E.—The Arc in High Vacua.


Sanders, H. N.—The Cynegeticus.

Schneider, J. P.—The Prose Style of Richard Rolle of Hampole with Special Reference to its Euphuistic Tendencies.

Shreve, F.—The Development and Anatomy of Sarracenia Purpurea.


Straus, H. P.—An Electrolytic Method for the Preparation of Pure Caustic Alkalies for the Laboratory.

Syme, W. A.—Some Constituents of the Poison Ivy Plant (Rhus Toxicoedendron).


West, A. P.—A Study of the Effect of Temperature on Dissociation and on the Temperature Coefficients of Conductivity in Aqueous Solutions.

1906, September 1.

N. Murray.
ABSTRACT OF THE REPORT OF THE LIBRARIAN

The number of bound volumes in the library is 128,356; the accessions during the year amounting to 4,658.

The number of pamphlets and unbound volumes received during the year exceeds 5,000. The total number of pamphlets is estimated at 100,000. About 2,000 serials are regularly received.

Among the important gifts of the year were:
- From Mr. A. G. Hutzler, the sum of $500 (his third gift) for the purchase of classical works in economics.
- From Professor Josiah Royce, the sum of $250 to purchase books in American philosophy.
- From Mr. Francis M. Jencks, the Teratological Library, numbering 936 volumes, of Professor Friedrich Ahlfeld, of Marburg University.
- A special book-plate has been made for each of the above collections.
- From Mr. Henry Sonneborn, a number of additions to the collection of Jewish Ceremonial Objects, given by him.
- From Mr. George A. von Lingen, many additions to the series of the German Geological Survey.
- As the gift of the late Professor David Murray, albums of colored pictures depicting life in Japan and a number of books and pamphlets from the collection made by him when Director of the Department of Education of Japan.
- From a friend of the University, another year's subscription—$90.00—to the International Catalogue of Scientific Literature. (The fourth annual issue is now about complete.)
- From the H. R. Bishop Estate, "Investigations and Studies in Jade," 2 vols. (From the limited edition of 100).
- From Professor W. W. Willoughby, 22 bound volumes to complete our set of "Foreign Relations of the U. S."
- From Mrs. David L. Bartlett, the Works of Carducci, so far as issued—15 volumes.
- From Mr. Arthur Steuart, 10 bound volumes of the periodical "Public Policy" and six volumes dealing with the labor question.
- From Mr. Theodore Marburg, a number of works in physics, in continuation of previous gifts, and eleven volumes on penology.
- From Mr. W. H. Buckler, ten volumes for the Labor and Capital Collection.
- From Mr. I. O. Harper, five bound volumes of newspaper clippings.
during the Civil War, and a number of historical books (all from the library of the late Paul Lovejoy).

Through Mr. W. F. Melton, an autograph poem and a portrait from each of the following contemporary southern writers: Clifford Lanier, Clinton Scollard, Robert Loveman, and F. D. Sherman; also a copy of Frank L. Babott’s privately printed edition of selected poems of John Donne.

From Henry Holt & Co., their chief publications for the year.

Important gifts have also been received from President Remsen, Professor Gildersleeve, President Gilman, Professor Bright, Dr. S. A. Green, Professor Abbe, and others. A list of gifts is appended to this report.

The usual academic exchanges have been received from the universities of Europe and America.

The books purchased have been devoted generally to the work of the courses in progress.

Among the more noteworthy additions to the library during the year are:

In Classical Archeology. Through a special appropriation a considerable collection of volumes in this subject has been purchased under the direction of Dr. Robinson. To this number many other volumes have been added from the McCoy collection and main library. The collection now numbers about 500 volumes.

In Political Science. Through the gift of Mr. R. T. Crane, noted in the report of last year, a complete set of the “British and Foreign State Papers,” numbering 95 volumes and costing over $200, has been secured. Also the file of Revue de Droit International Public, Vols. 1–10, 1894–1903. From library funds have been secured the Compiled Statutes of the United States and Gould and Tucker’s Notes on the same.

In Economics. Through the gifts of Mr. Hutzler, Mr. Epstein, and a friend of the University whose name is withheld, Professor Holland is making a collection of economic classics and works dealing with Labor and Capital which is believed to compare favorably with any similar collection in America. A large additional order has just been forwarded.

In French, complete editions of the following authors have been secured: Augier (7 vols.), Daudet (18 vols.), Dumas fils (8 vols.), Flaubert (8 vols.), and Musset (10 vols.). A model of the human larynx, with detachable parts, has also been installed in this department. Festschriften in honor of the following scholars (mostly Romance) have been purchased; viz., Appleton, Brunot, Morf, Mussafia, Nicole, Perrot, and Tobler. In Spanish, a subscription has been made to the new series, “Nueva Biblioteca de Autores Españoles,” about two volumes appearing annually.

Important sets of serials have been added to the Medical School Library: viz., Archiv für Anthropologie, Frommel’s Jahresbericht über die Fortschritte aus dem Gebiete der Geburtshilfe und Gynäkologie and the Archiv für Ophthalmologie, etc.

For the biological laboratory have been ordered the file of Berichte der
Deutschen Botanischen Gesellschaft, 22 vols.; Prenant's Traité d'histologie, whose completion will require several years; Ecker's Anatomie der Frosches, etc.

Other noteworthy purchases are:

Cuneiform texts from Babylonian tablets in the British Museum, 10 vols., to complete the set, in the Semitic library; Sammlung Göschens, 86 nos., to bring our set to date; Zeller's Histoire de France, 29 nos., to bring set to date; Borghei, Complete Works, 10 vols., for the classical library; the file of the "Modern Language Quarterly," as far as it can be secured, and the "Mirror for Magistrates," for the English seminary; a set of "Die Wissenschaft" (15 vols. to date) and the Transactions of the International Electrical Congress, St. Louis, 1904, together with purchases, as usual, on the Rowland and Marburg Funds, for the physical library; Weierstrass, Complete Works, 4 vols., for the mathematical collection; Hastings, Dictionary of the Bible, 5 vols.; the Jubilee edition of Goethe's Works for the German seminary library, and a complete set of the Zeitschrift für Psychologie for the psychological library.

Much attention has been given during the year to the binding up portions of our large pamphlet collection. In certain departments, especially in geology, political science, and physics, the pamphlets considered worthy of preservation have been brought together in subjects and bound up. This arrangement has commended itself to the heads of several departments, and, as funds are available, it is hoped to carry it out throughout our collection.

The administrative staff of the library consists of Dr. M. L. Raney, assistant librarian, and Mr. August Munzner, assistant to the librarian.

The general reading room has been in charge of Miss Frieda C. Thies.

The classical library has been in charge of Dr. C. W. E. Miller, under the supervision of Professor Gildersleeve.

The modern language library has been in charge of Dr. Keidel, under the supervision of Professors Wood and Elliott.

The English library has been under the direction of Professor Bright.

The historical collection has been in charge of Miss Daran, under the direction of Professor Vincent.

The chemical library has been in charge of Professor H. C. Jones, under the direction of President Remsen.

The biological library has been under the direction of Professor Brooks and Dr. Andrews, with a library attendant.

The geological library has been in charge of Professor Mathews, under the supervision of Professor Clark.

The astronomical library has been in charge of Professor Hulburt.

The physical and mathematical collections have been under the supervision of Professor Ames.
The library of philosophy and psychology has been in charge of Professor Baldwin.

The library of the medical department has been under the supervision of Professor Howell, with Miss Gordon as the attendant in charge, and with the cooperation of Miss Blogg, who is in charge of the hospital library and of the university books there deposited.

During the year the New Book Department has received about 1700 volumes. Since the opening of the department, about 113,000 volumes of the estimated value of $182,000 have been received for inspection.

The library is indebted to the Librarian of Congress for many courtesies during the year, as well as to the Smithsonian Institution and other governmental departments in Washington.

N. Murray,
Librarian.

1906, September 1.
GIFTS TO THE LIBRARY

(Also see Report of the Librarian)

ABBE, C. A large number of volumes for the Abbe Meteorological Library.
ADAMS, E. D. Adams, E. K., Mechanical and Electrical Inventions. New York, 1900. 2 vols. F.
AIZ, UNIVERSITY OF. Twelve academic publications.
ALDERMAN, E. A. The University of Virginia in the Life of the Nation. 1903. O.
AMERICAN FEDERATION OF LABOR. A number of recent publications.
AMERICAN HUMBERMAN. Personal History and Achievements of One Hundred Eminent Lumbermen. Second Series. Chicago, 1906. Q.
AMERICAN SCIENTIFIC AND HISTORIC PRESERVATION SOCIETY. Tenth Annual Report. Albany, 1905. O.
AMBETEBAßMEISSA ERKIV. Thirty-eight pamphlets on statutes, tariffs, etc.
ARMY WAR COLLEGE LIBRARY. Author and Title List of Accessions to Library, 1906. O.
AUSTRALIA, PERTH OBSERVATORY. Meteorological Observations, 1903. Perth, 1904. F.
BABBOTT, F. L. (Ed.) Poems of John Donne. N. Y., 1905. Q.
BALTIMORE, CITY LIBRARY. Records of the City of Baltimore, 1797-1813. Baltimore, 1906. O.
BARTON, S. G. (Author.) Secular Perturbations from the Action of Saturn upon Mars. Phila., 1906. O.
BAUS, UNIVERSITY OF. Academic publications for the year.
BELGIUM, GOVERNMENT OF. Six publications of the Expédition Antarctique Belge.
BONN, TECHNISCHE HOCHSCHULE. Four academic publications.
BONN, UNIVERSITY OF. Two hundred and sixty-one academic publications.
BESANÇON, UNIVERSITY OF. Three academic publications.
BODLEIAN LIBRARY. Three volumes of recent Oxford publications.
BÖNN, UNIVERSITY OF. Academic publications for the year.
Bordeaux, UNIVERSITY OF. One hundred and forty-seven academic publications.
BRACKETT, R. N. (Ed.) Old Stone Church, Orange County, S. C. Columbia, 1906. O.
BRANDON, M. Handakob, H., Der schwarze Berthold der Erfinder des Schiesslpulvers. Freiburg, 1891. O.
Gifts to the Library

BRIGHT, J. W. Sixty pamphlets.
BRITISH SOUTH AFRICAN COMPANY. Geodetic Survey of Southern Rhodesia. Cape Town, 1905. F.
BROWNE, W. H. Books Relating to the History of Georgia in the library of W. J. de Renne. Savannah, 1905. F.
BYN MAWN COLLEGE. Six academic publications.
BUCHANAN, R. (Author.) Introduction to the Differential Calculus. 1905. O.
BUCKLER, W. H. A number of books, papers and Ma., relating to Trade Unions and Labor Federations.
BUDAPEST, BUREAU COMMUNAL DE STATISTIQUE. Publications for the year.
CAEN, UNIVERSITY OP. Seventeen academic publications.
CAISSE GÉNÉRALE D'ÉPARGNE. (Brussels.) Compte Rendu des Opérations et de la Situation, etc., 1905.
Asbestos, its Occurrence, Exploitation and Uses. Ottawa, 1905. O.
CANADA, MINISTER OF AGRICULTURE. Report concerning Canadian Archives. Ottawa, 1905. O.
CARNegie INSTITUTION. (Washington.) Nine publications.
CATHOLIC UNIVERSITY OF AMERICA. Ten academic publications.
CHICAGO COMMERCIAL ASSOCIATION. From the Great Lakes to the Gulf of Mexico. 1906. O.
CHICAGO, UNIVERSITY OP. Fifteen academic publications.
CHILL, UNIVERSITY OP. Lenz, E., Diccionario Etimologico de las Voces Chilenas. Santiago, 1904-1905. Q.
CHURCH OF LATTER-DAY SAINTS. Whitney, O. F., Elias: An Epic of the Ages. N. Y., 1904. O.
CINCINNATI, UNIVERSITY OP. Publications for the year.
CLARK UNIVERSITY. Publications for the year.
CLEMONT-FERRAND, UNIVERSITY OP. Academic publications for the year.
CLEVELAND, PUBLISHING Co. Fish, J. C. L. Typhoid Fever Epidemic at Palo Alto. 1905. O.
CLEWS, H. (Author.) The Monetary Situation and its Remedies. 1906. O.
COLN STÖDISCHE HANDBEL-HOCHSCHUL. Erste selbständige Handels-Hochschule in Deutschland. Berlin, 1903. O.
COHN, P. (Author.) Die chemische Industrie. Wien, 1905. F.
COLEMAN, J. M. (Author.) Social Ethics. N. Y., 1903. O.
COLUMBIA UNIVERSITY. Twenty-eight academic publications.
CORNELL COLLEGE. Celebration of the Fiftieth Anniversary. Mt. Vernon, 1904. O.
CORNELL UNIVERSITY. Eighteen academic publications.
COUBERTIN, P. de. (Author.) La Chronique de France. 1904. O.
COUSSIN, J. (Author.) The Divine Inheritance, etc. London, 1905. D.
COZ, E. L. (Author.) Poems. Boston, 1904. O.
DAVIS, J. (Author.) Some Facts about John Paul Jones. Raleigh, 1906. O.
Johns Hopkins University Circular

Dillon, University of. Twenty-two academic publications.
Dorpat, Naturforschende Gesellschaft. Three publications.
Durn, B. A. (Author.) An Inductive Creed. Boston, 1806. D.
Edward, John O. Vulcan Record and Other Papers, 1867-1878.
Eichthal, E. D. (Author.) Quelques Notes d'un Voyage aux Etats-Unis. Paris, 1906. O.
Emory and Henry College. Surface, G. T., The Industrial Situation in the South. 1906. O.
Erlangen, University of. One hundred and seventy-five academic publications.
Evans, H. R. (Author.) The Old and the New Magic. Chicago, 1806. O.
Executive Committee. Anniversary of the Jews in United States. The Two Hundred and Fiftieth Anniversary of the Settlement of the Jews in the United States. 1906. O.
A copy of a medal struck off in commemoration of that event.
Ferguson, E. A. (Author.) Cincinnati Southern Railway. Cincinnati, 1905. O.
Ferrand, M. G. (Author.) Un Texte Arabico-Malgache. Paris, 1904. Q.
Fink, H. (Author.) Regulation of Railway Rates. N. Y., 1905. O.
Franklin, Mrs. C. L. Ompieda, G. von, Freilichtbilder. Berlin, 1901. D.
Maria da Terra. Berlin, 1901. O.
Franklin Bi-Centennial Committee. The Two Hundredth Anniversary of the Birth of Benjamin Franklin. Boston, 1906. O.
Frederico, P. (Author.) Corpus Documentorum Inquisitionis Haereticae Pravitatis Neerlandiae. Ghent, 1906. O.
Freiburg, University of. One hundred and twenty-four academic publications.
Friisberg, H. (Author.) In stillen Stunden. Dresden, 1906. D.
Gieschen, University of. One hundred and seventy-two academic publications.
Gildersleeve, B. L. A large number of books and pamphlets.
Gilmor, D. C. Sixteen hundred pamphlets and many miscellaneous books.
Glaskow, University of. Morrison, J., New Ideas in India during the Nineteenth Century. Edinburgh, 1906. O.
Goteborgs Stadsbibliothek. Goteborgs Hogaeskasla Arskrift. 1904. O.
Gotingen, University of. One hundred and thirty-three academic publications.
Green, S. A. Thirteen publications.
Greibwald, University of. One hundred and thirty-two academic publications.
Gronoble, University of. Thirteen academic publications.
Halle, University of. Academic publications for the year.
Hardinbrook, W. T. K. Artotype proof of the portrait of his collection of "The Most Eminent Living Americans in 1906."
Harper, I. O. Five bound volumes of newspaper clippings on Secession and the Civil War collected by the late Professor P. R. Lovejoy; also a number of books on historical topics from the library of Professor Lovejoy.
Harper & Brothers (Publishers.) Godwin, P., Commemorative Addresses. N. Y., 1895. O.
Gifts to the Library

HARVARD COLLEGE, ASTRONOMICAL OBSERVATORY. Publications for the year.
HARVARD COLLEGE, MUSEUM OF COMPARATIVE ZOOLOGY (Prof. A. Agassiz, Director).
Publications for the year.
Contributions from the Jefferson Physical Laboratory. Cambridge, 1905. O.
Other official publications.
HEIDELBERG, UNIVERSITY OF. Academic publications for the year.
HIRTH, F. (Author.) Scraps from a Collector's Note Book. Leiden, 1905. O.
HOKR, R. A Short History of the Printing Press. New York. 1902. Q.
HOLMES, C. R. (Author.) Operation for the Removal of Adenoids, etc. St. Louis, 1905. O.
HOLT, HENRY, & Co. Their publications for the year.
HOWARD MEMORIAL LIBRARY. Five pamphlets relating to New Orleans and Louisiana.
HOUWEL, W. H. Four volumes in physiology.
HUNT, R. (Author.) The Influence of Thyroid Feeding upon Poisoning by Acetonitrile. 1905. O.
HUTZLER, A. G. (See Report of Librarian.)
JANET, C. (Author.) Description du Materiel d'une Petite Installation Scientifique, I. Limoges, 1905. O.
Anatomie de la Tête du Lasius Niger. Limoges, 1905. O.
JANNET, J. J. Proceedings of Meeting of the Lake Mohonk Conference of Friends of the Indian, etc. 1905. O.
JENCKS, F. M. The Abildf Old Teratological Library.
JOHNSON, C. W. L. (Author.) The Accentus of the Ancient Latin Grammarians.
JOHNSTON, G. B. (Author.) A Sketch of Dr. John Peter Meliauer. 1905. O.
Koeb, J. The Dynamics of Living Matter. N. Y., 1906. O.
KARLSRUHE, TECHNICAL HIGH-SCHOOL. Academic publications for the year.
KELLY, H. A. (Author.) Walter Reed and Yellow Fever. N. Y., 1906. D.
KIRBY, C. S. (Author.) Legislation as to Property given for Charitable Uses. London, 1889. O.
KIEZ, UNIVERSITY OF. One hundred and seventy-eight academic publications.
KLEIST, J. A. (Translator.) Kaegi, A., A Short Grammar of Classical Greek. St. Louis, 1905. O.
KÖNNENBERG, UNIVERSITY OF. Eighty academic publications.
LAMAS, A. (Author.) Desde la Cárcel. Santiago, 1905. D.
LEZIPPI, UNIVERSITY OF. Four hundred and eighty-five academic publications.
LEWIS AND CLARK CENTENNIAL EXPOSITION. Programma, Organization and Addresses. Portland, 1905. O.

LEYDEN, UNIVERSITY OF. Twenty-one academic publications.

LILLE, UNIVERSITY OF. Fifty-seven academic publications.


LONDON, ROYAL SOCIETY OF. Campbell, A. W., Histological Studies on the Localization of Cerebral Function. Cambridge, 1905. Q.


In addition to its regular publications.

LOUVAIN, UNIVERSITY OF. Eight academic publications.

LYONS, UNIVERSITY OF. Two hundred and nineteen academic publications.


McCLean, (Mrs.) F. McClean, F., Photographs of the Spectrum of Nova Persei. Six Plates, with Notes, in Portfoilo. London, 1905. F.

MADRID, NATIONAL LIBRARY. Sarria, M., Apuntes para una Biblioteca de escritores españoles. T. I. Madrid, 1905. Q.

Cortarolo, D. E., Bibliografia de las controversias sobre la licitud del Teatro en España. Madrid, 1904. Q.


MANCHESTER, UNIVERSITY OF. Eleven academic publications.

MARburg, TheodorE. (See Report of Librarian.)

MArvin, F. E. (Author.) The Companionship of Books and other Papers. N. Y., 1905. O.

MELton, W. F. (See Report of Librarian.)

MERCHANTS ASSOCIATION (N. Y.). Waste of Water in New York. 1906. O.


MEXICO, REPUBLIC OF. Reclamacion del Gobierno de los Estados Unidos de America Contra Mexico Respecto del Fondo Piadoso de las Californias. Mexico, 1903. O.

MICHIGAN, STATE LIBRARY. Michigan Pioneer and Historical Collections. 1905. 4 vols. O.

MICHIGAN, UNIVERSITY OF. Seventy-three academic publications.


MISSISSIPPI HISTORICAL SOCIETY. The Mississippi Territorial Archives, 1798-1803. Nashville, 1905. O.

MISSOURI HISTORICAL SOCIETY. Seventy-eight volumes.

MONACo, PRINCE ALBERT DE. Experiences d'Enlèvement d'un Hélicoptère. 1905. Q.

Sur la Campagne de la Princesse Alice. 1905. Q.

Bulletin du Musée Océanographique de Monaco. 1905-06. 11 nos. O.

MONTPelleR, UNIVERSITY OF. One hundred and thirty-six academic publications.

MOORE, C. B. (Author.) Aboriginal Remains of the Black Warrior River, etc. Phila., 1903. O.

MURRAY, DAVID. (See Report of Librarian.)

NANCE, UNIVERSITY OF. Fifty-four academic publications.

NATIONAL ALUMNI. Facsimile of the Czar's Manifest of October 17, 1905.

NEW ENGLAND SOCIETY. One Hundredth Anniversary Celebration. N. Y., 1905. O.

NEW JERSEY STATE LIBRARY. Archives. First Series. Vol. XXX, Paterson, 1903. O.
Gifts to the Library

NEW YORK, BOARD OF EDUCATION. Directory of Teachers in the Public Schools. N. Y., 1905. D.

NEW YORK CHAMBER OF COMMERCE. Rapid Transit in New York and in other great Cities. 1905. Q.


Collections for the year 1898. N. Y., 1899. O.

The Journal of the Voyage from Charlestown, S. C., to London, etc. N. Y., 1906. O.

NEW YORK STATE LIBRARY. Sixty-seven documents.

Proceedings of Legislative Insurance Investigation Committee. Albany, 1905-06. 10 vols. O.

NORTH CAROLINA STATE LIBRARY. The State Records of North Carolina, collected and edited by W. Clark. 1732-1750. Goldsboro, 1901-05. 5 vols. Q.

NOYES, A. A. (Author.) The Ideals of the Institute. Boston, 1905. O.


ONTARIO, MINISTER OF EDUCATION. Hodgins, J. G., Documentary History of Education in Upper Canada. Toronto, 1905-06. 2 vols. O.

OWENS COLLEGE (Manchester), ZOOLOGICAL DEPARTMENT. Six academic publications.

OXFORD, UNIVERSITY OF. Five academic publications.


PARIS, UNIVERSITY OF (Faculty of Law). Two hundred and sixty-seven academic publications.

PARIS, UNIVERSITY OF (Faculty of Medicine). Four hundred and fifty academic publications.

PENNSYLVANIA STATE LIBRARY. Forty-three official publications.

PENNSYLVANIA, UNIVERSITY OF. Twenty academic publications.


PLOTTS, W. (Author.) Origin of Petroleum, Coal, etc. Whittier, 1905. D.

PHOTOGRAPHERS' ASSOCIATION OF AMERICA. Cummings, T. H., Photography: Recognition as a Fine Art. Boston, 1905. O.

POITIER, UNIVERSITY OF. Twenty academic publications.

POTWIN, L. S. (Author.) Here and There in the Greek New Testament. Chicago, 1898. O.


PRINCETON UNIVERSITY. Witherspoon, J., Lectures on Moral Philosophy. Phila., 1810. D.

Hatori, B., Local Finance in Japan. Princeton, 1906. O.

Academic publications for the year.


RANKIN, H. W. (Author.) Philosophy of Char. W. Shiel. 1906. O.

RERVES, J. S. Revue Napoleonienne. 8 nos.

REID, H. F. (Author.) The Variations of Glaciers, XI. 1905. O.

Records of Seismographs in North America and the Hawaiian Islands. No. 1. 1905. O.

REMSSEN, I. R. Eighteen miscellaneous publications.

RENNES, UNIVERSITY OF. Twenty-seven academic publications.

RIO DE JANEIRO, NATIONAL LIBRARY. Six publications.

ROME, MINISTER OF PUBLIC INSTRUCTION. Le Opere di Galileo Galilei. Vol. XVI. Firenze, 1905. Q.
ROSENGARTEN, J. G. (Author.) Frederick the Great and the United States. Lancaster, 1906. O.
ROUX, J. E., Jr. (Author.) The Fall of Tollan. Boston, 1905. D.
ROYCE, J. (See Report of Librarian.)
RUSSIA, MINISTER OF FINANCE. Report on the Budget of the Empire. St. Petersburg, 1905. F.
ST. ANDREWS, UNIVERSITY OF. Academic publications for the year.
ST. PETERSBURG, IMPERIAL LIBRARY. Twenty publications.
SAYYER, J. (Author.) Insomnia. Birmingham, 1904. D.
SCHULZ, J. (Author.) Americans of 1776. N. Y., 1906. O.
SHORT, (Mrs.) E. L. Short, E. L., Amor Redivivus and other Poems. N. Y., 1905. O.
SMALL, A. W. (Author.) General Sociology. Chicago, 1905. O.
SMITH, (Miss) F. Wilson, J. E., Life and Services of W. F. Smith. Wilmington, 1904. O.
SMITH, J. D. (Author.) Enumeration Plantarum Guatemalensium, pars VII. Oquawake, 1905. O.
Fifteen miscellaneous pamphlets.
SONNEBORN, H. (See Report of Librarian.)
SOUTH AUSTRALIA, GEOLOGICAL DEPARTMENT. Geological Explorations. Adelaide, 1905. F.
SOUTH AUSTRALIA, MINISTER OF MINES. Mining Operations in South Australia. Adelaide, 1905. O.
SPITZBERG, COMMISSION ROYALE. Mesure d'un arc de méridien au Spitzberg. Stockholm, 1903-06. 12 nos. F.
SQUIRES, W. H. (Author.) Jonathan Edwards u. seine Willeinslehre. 1901. O.
STUART, A. Public Policy. Chicago, 1901-05. 10 vols. Q.
Six volumes on economic subjects.
STRASBURG, UNIVERSITY OF. One hundred and nine academic publications.
SUTrO, (Mrs.) O. Three volumes on vocal utterance.
SWIFT, M. L. (Author.) Marriage and Race Death. N. Y., 1906. O.
TASMANIA GEOLOGICAL SURVEY. Reports for the year.
TAYLOR, R. T. (Through Dr. O. Johnston.) Memoirs of the Egypt Exploration Fund. London. 3 vols. F.
TEMPLE COLLEGE. Viaches, N. P., Religion of Sophocles. 1906. O.
TEUNIt, R. G. (Publ.) Six publications.
TORONTO, UNIVERSITY OF. Five academic publications.
TOULOUSE, UNIVERSITY OF. One hundred and thirty-three academic publications.
URUGUAY, REPUBLIC OF. (Through Frudencio de Murugolado, Consul General at Baltimore.) Eleven publications relating to Uruguay.
UVRACIT, UNIVERSITY OF. Forty-eight academic publications.
VASCONECELOS, J. L. DE. (Author.) O Livro de Esopo. Lisboa, 1906. Q.
VAUX, LE BARON C. DE. (Author.) Etrusca, 4-5. Paris, 1905. Q.
VERMONT, UNIVERSITY OF. The Centennial Anniversary of Graduation of First Class. Burlington, 1905. O.
VICTORIA PUBLIC LIBRARY, ETC. Catalogue of Current Periodicals. Melbourne, 1905. O.
VOLTA BUREAU. Two recent publications.
VON LINGEN, G. A. (See Report of Librarian.)
Gifts to the Library

Walker, G. M. (Author.) Record of Phi Kappa Pal. N. Y., 1906. S.

Ward, L. S. (Author.) Cattle Feeding with Sugar Beets, etc. Phila., 1902. O.

Watson, T. L. (Author.) Lead and Zine Deposits of Virginia. 1905. O.

Welcome Chemical Research Laboratories. Eight publications.


West Virginia Geological Survey. Grimsley, G. P., Chas. Limestones and Co-

ments. Morgantown, 1906. O.

Willaughby, W. W. Papers Relating to Foreign Relations of United States. Wash-
ington, 1878-1902. 22 vols. O.

Wisconsin Free Library Commission. Five of its publications.


Woodward, A. S. (Author.) Fossil Flakes of Upper Lias of Whiby. O.

Yale University Library. Seven academic publications.

Young, Dr. James, of Kelly (Trustees). Ferguson, J., (compiler), Bibliotheca

Chemica; a Catalogue. Glasgow, 1906. 2 vols. Q.

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Reports and current publications have been received from the societies and
institutions named below. The list does not cover reports, catalogues, and other pub-
llications received in regular exchange.

American Bible Society; American Climatological Association; American-Irish
Historical Society; American Laryngological Association; American Laryngological,
Rhinological and Otological Society; American Museum of Natural History; American
Numismatic and Archeological Society of New York; American Society of Heating
and Ventilating Engineers; Australasian Association for the Advancement of Science;
Baltimore Burnt District Commission; Baltimore, Chamber of Commerce; Boston
Atheneum; Boston, Board of Overseers of the Poor; Boston City Auditor; Boston City
Registry Department; Boston, Executive Department; Boston Museum of Fine Arts;
Boston Port and Seamen's Aid Society; Boston Public Library; Boston School Com-
mittee; Boston, Schoolhouse Department; Boston, Statistics Department; British
Association for the Advancement of Science; Buenos Aires, Statistique Municipale;
Buenos Aires, University of; Buffalo Public Library; Cambridge (Mass.), City Clerk;
Canada, Royal Society of; Carnegie Free Library (Allegheny); Carnegie Free Library
(Bradford); Carnegie Museum (Pittsburgh): Central Conference of American Rabbis;
Chemnitz, Technische Staatslehranstalten; Chicago, Public Library; Cincinnati
Chamber of Commerce; Cincinnati Museum Association; Cincinnati, Public Library;
Cleveland Public Library; Connecticut Bureau of Labor Statistics; Cooper Union; Edu-
cational Alliance; Emden, Naturforschende Gesellschaft; Field Columbian Museum;
Forbes Library; Friends' Free Library (Germantown); Grand Rapids Public Library;
Hadley Climatological Laboratory; Harvard University; Haverhill Public Library;
Hawaii Promotion Committee; Hawaiian Sugar Planters' Association; Illinois Bureau
of Labor Statistics; India, Government of; Indian Rights Association; Indiana,
Department of Geology; Indiana Medical Association; Iowa, Executive Council;
Ireland, Royal Academy of Medicine; Jersey City, Free Public Library; Jewish Hos-
pital Association; John Crerar Library; Kansas, State Board of Agriculture; Kentucky
Agricultural Experiment Station; Koidaikanal and Madras Observatories; Lake
Mohawk Conference; Leland Stanford Junior University; Liverpool Biological Society;
London, Clinical Society; Lowell Observatory; Maine Genealogical Society; Marsei-
les, Faculté des Sciences; Maryland Bible Society; Maryland Institute; Maryland His-
torical Society; Maryland State Library; Massachusetts, Board of Education; Massa-
chusetts, Board of Railroad Commissioners; Massachusetts, Bureau of Statistics of
Labor; Massachusetts, Commonwealth of; Massachusetts Gas and Electric Light Com-
misioners; Massachusetts, State Board of Charity; Massachusetts, State Board of
The university is indebted, as in previous years, for many and valuable gifts from the Government Departments at Washington.
REPORT

OF THE PRESIDENT OF

THE JOHNS HOPKINS UNIVERSITY

Baltimore, Maryland

1907

Baltimore
THE JOHNS HOPKINS PRESS
1908
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TREASURER OF THE UNIVERSITY

Charles J. Meyer
REPORT

To the Trustees of
The Johns Hopkins University:

Gentlemen:

I have the honor to submit to you my report for the last academic year, beginning September 1, 1906, and ending August 31, 1907.

Hon. Thomas J. Morris, who has been for many years Judge of the United States District Court of Baltimore, was elected a member of the Board of Trustees at the meeting of April 1, 1907.

Reverdy Johnson, Jr., for a long time one of the Trustees of this University and of the Peabody Institute, died July 14, 1907. He had passed his eighty-first birthday.

He was one of the original Trustees of the University, selected by the founder, and during its early years he gave much time and thought to the development of its plans. Some years ago he withdrew from the Board much to the surprise and disappointment of his colleagues. His withdrawal was not due to any distrust of the management or to disapproval of its methods.

During his service as one of the Trustees of the Peabody Institute he was especially interested in the growth of the Library and in the management of the Conservatory of Music. His love of books and his fondness for orchestral music made him an excellent adviser in these two departments. He had high conceptions of the part which the University and the Peabody Institute might take in the literary and artistic development of Baltimore, and he frowned upon any lowering of the high standards
which marked the beginning of both these institutions. He gave by will to the University the sum of $10,000 and the reversion of $15,000.

RECENT APPOINTMENTS

In the Philosophical Faculty

To be Professors:
Hermann Collitz, Ph. D., Germanic Philology.  
Herbert S. Jennings, Ph. D., Experimental Zoology.  
Wilfred P. Mustard, Ph. D., Latin (Collegiate Professor).

To be Associate Professors:
Solomon F. Acree, Ph. D., Chemistry.  
Charles K. Swartz, Ph. D., Geology and Paleontology.

To be Associates:
Arthur B. Coble, Ph. D., Mathematics.  
William Kurrelmeyer, Ph. D., German.

To be Instructors and Assistants:
N. Trigant Burrow, M. D., Psychology.  
T. Wesley Glocker, Ph. D., Political Economy.  
Albert H. Licklider, Ph. D., English.  
Benjamin F. Lovelace, Ph. D., Chemistry.  
Charles A. Rouiller, Ph. D., Chemistry.

In the Medical Faculty

To be Associate:
J. A. English Eyster, M. D., Physiology.

To be Instructors:
Joseph A. Chatard, M. D., Medicine.  
Donald R. Hooker, M. D., Physiology.  
Elizabeth Hurdon, M. D., Gynecology.  
John A. Luetscher, M. D., Medicine.

To be Assistants:
Curtis F. Burnam, M. D., Gynecology.  
DeWitt B. Casler, M. D., Gynecology.  
Harry S. Greenbaum, M. D., Medicine.  
H. Downman McCarty, M. D., Neurology.  
Lewis L. Reford, M. D., Surgery.  
Henry J. Storrs, M. D., Obstetrics.  
John M. West, M. D., Laryngology and Rhinology.
Dr. Hermann Collitz, who has been appointed Professor of Germanic Philology, is a native of Germany and a graduate of the University of Goettingen in 1879. He was Assistant Librarian and Privat-Dozent in Sanskrit and Comparative Philology in the University of Halle for three years, and in 1886 he came to Bryn Mawr College as Associate Professor of German, becoming Professor of Comparative Philology and German in 1897. He is the author or editor of numerous works devoted to linguistic science, and one of the editors of "Modern Language Notes" published by this University.

Dr. Herbert S. Jennings, who came to us last year as Associate Professor of Physiological Zoology, has been elected Professor of Experimental Zoology.

An appointment of special importance to our undergraduate work is that of Dr. Wilfred P. Mustard as Collegiate Professor of Latin. Dr. Mustard is a Canadian by birth and a graduate of the University of Toronto in 1886. He pursued the study of Latin, Greek, and Sanskrit in the Johns Hopkins University from 1889 to 1891, holding successively a University Scholarship and a Fellowship, and receiving the degree of Doctor of Philosophy in June, 1891. For two years he was professor of Latin in Colorado College, and since 1894 professor of Latin in Haverford College. He is the author of "Classical Echoes in Tennyson" and a frequent contributor to the American Journal of Philology and other periodicals.

Dr. Ross G. Harrison, who has been Associate Professor of Anatomy here since 1899, and previously for three years an Instructor and Associate, has been elected Professor of Comparative Anatomy in Yale University and has already assumed his duties there. Dr. Harrison is a Bachelor of Arts and a Doctor of Philosophy of this University, held a fellowship in Biology one year, and
received an appointment to the Bruce Fellowship but was unable to accept. He spent one year in Bryn Mawr College as a lecturer. He was a valuable member of our staff and his colleagues regret his leaving, though rejoicing that he has found such an excellent field for his future work.

Professor Hollander has continued his services to the Government as Confidential Agent of the State Department in regard to affairs in San Domingo, and he has also acted as Chairman of the Advisory Committee on Taxation and Revenue, appointed by the Mayor of Baltimore.

Professor Clark attended the Centenary of the Geological Society of London, in September, as a delegate from this University, as well as in his capacity of Foreign Correspondent of the Society.

Professor Reid represented the United States Government at the meeting of the Permanent Commission of the International Seismological Association held in Rome in October, 1906, and also at the General Assembly of the same association at the Hague in September, 1907.

JOHNSTON SCHOLARSHIPS

The three holders of the Johnston Scholarships, Messrs. Ralph Stayner Lillie, Samuel Grant Oliphant, and Isaac Woodbridge Riley, resigned at the close of the academic year. Dr. Lillie has become an instructor in Comparative Physiology in the University of Pennsylvania; Dr. Oliphant is now professor of Ancient Languages in Olivet College, Michigan; and Dr. Riley has been appointed Professor of Philosophy in Vassar College.

The present incumbents are as follows:

William Davis Furry (Henry E. Johnston Jr. Scholar), who was graduated at the University of Notre Dame, in Indiana, as a Bachelor of Arts, in 1900. He was then for two years Professor of Latin and Greek and during the next two years Professor of Philosophy and Psychology
in Ashland College, Ohio. At times between 1901 and 1904 he studied Philosophy in the University of Chicago. He entered this University in the fall of 1904, and during his last year he held a fellowship, graduating as a Doctor of Philosophy in June, 1907. He submitted as his dissertation for this degree a study of "The Aesthetic Experience: Its Nature and Functions in Epistemology," which is about to issue from the press.

Samuel Ottmar Mast (Henry E. Johnston Scholar), who is a Bachelor of Arts of the University of Michigan in 1899 and a Doctor of Philosophy of Harvard University, 1906. Since 1900 he has been Professor of Biology in Hope College, Holland, Michigan. He has published an important study of "Light Reactions in Lower Organisms," in two parts, printed respectively in the Journal of Experimental Zoology and the Journal of Comparative Neurology and Psychology. Other publications are "Reaction to Temperature Changes in Spirillum, Hydra, and Fresh Water Planarians"; "A Simple Apparatus for Aerating Liquid Solutions"; "A Simple Electric Thermoregulator"; "Effects of Sub-Breeding, Cross-Breeding and Selection upon the Fertility and Variability of Drosophila"; "Structure and Physiology of Flowering Plants" (a Student's Guide).

August Herman Pfund (James Buchanan Johnston Scholar), who received the degree of Bachelor of Science from the University of Wisconsin in 1901, and was a graduate student and a fellow in that institution during the next two years. He came to the Johns Hopkins University in the autumn of 1903 as a graduate student and a Carnegie Research Assistant to Professor R. W. Wood. He was a fellow in Physics during 1905-1906 and an Assistant during 1906-1907. In June, 1906, he received the degree of Doctor of Philosophy, his dissertation embodying the results of research in "Polarization and Selective Reflection in the Infra-Red Spectrum," which was read at the Easter meeting (1906) of the American
Physical Society and published in the *Astrophysical Journal*, July, 1906. He is now engaged in a revision of the table of standard wave-lengths. Among his publications the following are also worthy of special mention: "Dispersion and Surface Color of Selenium"; "A Study of the Selenium Cell"; "A Simple Photometer."

**COMMENORATION DAY**

The annual exercises of Commemoration Day were held in McCoy Hall on the twenty-second of February. The principal address was delivered by the Hon. Hannis Taylor, of Washington, and has been printed in the *University Circular* for February, 1907. Mr. William H. Buckler, Chairman of the Homewood Committee of the Trustees, made a statement of the progress that is being made in the development of the future site of the University. Two young men were advanced to the degree of Doctor of Philosophy and one young woman to that of Doctor of Medicine. The general Alumni Association held its annual meeting just before the morning exercises, and the annual banquet took place in the evening at the Merchants' Club.

**COMMENCEMENT**

Degrees were conferred at the public exercises of Commencement, in the Academy of Music, on the afternoon of Tuesday, June 11. Forty-seven Bachelors of Arts, thirty-three Doctors of Philosophy, and seventy Doctors of Medicine received diplomas. The chief address was given by the Hon. Wendell P. Stafford, Associate Justice of the Supreme Court of the District of Columbia.

**PRIZES**

The John Marshall Prize, which consists of a bronze likeness of Chief Justice Marshall, was given this year to
Bernard C. Steiner (Ph. D., 1891), in recognition of his recent work entitled "The Life and Correspondence of James McHenry, Secretary of War under Washington and Adams." The prize has been awarded annually to that graduate of the University who is considered to have made within the year the most valuable contribution to historical or political science. The fund with which the Marshall prize was established, is now exhausted.

The recipients are named below:

1892. Henry C. Adams, Ph. D.
1892. Charles H. Levermore, Ph. D.
1892. John M. Vincent, Ph. D.
1892. Woodrow Wilson, Ph. D.
1893. Charles M. Andrews, Ph. D.
1894. Amos G. Warner, Ph. D.
1895. Albert Shaw, Ph. D.
1896. Westel W. Willoughby, Ph. D.
1897. J. Franklin Jameson, Ph. D.
1898. Charles D. Hazen, Ph. D.
1899. Jacob H. Hollander, Ph. D.
1900. James M. Callahan, Ph. D.
1901. John H. Latane, Ph. D.
1902. James C. Ballagh, Ph. D.
1903. James A. Woodburn, Ph. D.
1904. Davis R. Dewey, Ph. D.
1905. Herbert Friedenwald, Ph. D.
1906. John S. Bassett, Ph. D.
1907. Bernard C. Steiner, Ph. D.

The Henrico Medallion, a copper bas-relief, commemorating the foundation of a university at Henrico, in Virginia, in the year 1619, the gift of the Colonial Dames of America, Chapter I, was awarded to John C. Hildt (Ph. D., 1906), as a recognition of his published work entitled "Early Diplomatic Negotiations of the United States and Russia." This prize is bestowed upon a graduate or student of this University, not more than ten years after his receiving the degree of Bachelor of Arts, in recognition of work of special excellence in early American History.
The prize has been awarded to the following persons:

1903. Elbert J. Benton, Ph. D.
1904. St. George L. Sioussat, Ph. D.
1905. Oliver F. Chitwood, Ph. D.
1906. John C. Hildt, Ph. D.

The Tocqueville Medal, the gift of the Baron Pierre de Coubertin, of Paris, commemorating the name of the illustrious Frenchman, Alexis de Tocqueville, was awarded to Oscar Ellis Bransky (A. B., 1907), for his essay on "Alphonse de Lamartine." It is offered by the University to that student who shall write the best essay on some subject illustrating any phase of French History, political or social, from 1815 to 1890, or a review of some important historical work published in France since 1890. The medal has been awarded to the following young men:

1900. James E. Routh, Jr., A. B.
1903. Harry K. Tootle, A. B.
1904. Gerald B. Rosenheim, A. B.
1905. J. Frank Cremen, A. B.
1906. Ormond W. Hammond, Jr., A. B.
1907. Oscar E. Bransky, A. B.

PUBLICATIONS

The various serial publications of the University have appeared as usual. The list now includes the following journals:

The American Journal of Mathematics, in its twenty-ninth volume; the American Journal of Philology, in its twenty-eighth volume; the American Chemical Journal, in its thirty-eighth; Studies in Historical and Political Science, of which the twenty-fourth series is completed, and several extra volumes have been issued; and Modern Language Notes, of which twenty-one volumes are complete. The contributions to Assyriology, the Memoirs from the Biological Laboratory, and the Journal of Terrestrial Magnetism have also been issued under the editorial direction of university professors.
ACADEMIC CELEBRATIONS

Among the academic and scientific gatherings at which the University has been represented the following should be mentioned:

The dedication of the new buildings for the engineering departments of the University of Pennsylvania, on which occasion Associate Professor Whitehead was our delegate; the Seventh International Zoological Congress in Boston, Professor Brooks being our delegate; the celebration of the one hundred and twenty-fifth anniversary of the founding of Washington College, Chestertown, Md., Professor Ames being our delegate and delivering one of the addresses; the fiftieth anniversary of the inauguration of Washington University, St. Louis, at which Professor Keiser, a graduate of this University, was our representative; the seventy-fifth anniversary of the foundation of Lafayette College, when we were represented by Professor Bright; the centenary of the Geological Society of London, Professor Clark being our representative; the dedication of the building in New York given by Mr. Carnegie as a home for American Engineering Societies, the President of this Board representing the University.

The President of the University was the official delegate to the eighth annual conference of the Association of American Universities held under the auspices of Harvard University; to the dedication of the new building of the Carnegie Institute in Pittsburg; and to the centennial celebration of the University of Maryland. He also delivered addresses at the Michigan School of Mines, the University of the South, Vanderbilt University, Wake Forest College, and the University of Michigan.

GIFTS AND BEQUESTS

The most important gift of the year came from the heirs of the late Mr. Charles L. Marburg, of Baltimore. The
following resolution accepting the gift was adopted by the Board of Trustees May 6, 1907:

Resolved, That the Trustees of the Johns Hopkins University gratefully accept the gift of fifty thousand dollars offered to the University by Miss Amelia Marburg and Messrs. William A. and Theodore Marburg, heirs of the late Charles L. Marburg, and they hereby agree—

1. That, within a reasonable time after the removal of the University to Homewood, the principal of said fund shall be applied to the erection of a building to cost not less than one hundred thousand dollars, the balance of the money required to be taken from other funds of the University available for such a purpose,—this course being justified by the fact that the total gifts to the University of the late Charles L. Marburg and the present donors amount to more than the sum proposed to be expended on the memorial building;

2. That the building shall be known as the Marburg Building and shall contain in a suitable place a tablet or other proper memorial of Charles L. Marburg, in whose memory this gift to the University is made.

3. That, until such building is erected, the funds shall be safely invested and kept as a distinct fund of the University, to be known as the Charles L. Marburg Fund. The Board of Trustees shall have absolute discretion as to the investment and reinvestment thereof.

4. That the income of said fund during such time shall be applied to the expenses and the development of Homewood; or the income may be added to the principal of the fund, in the discretion of the said Board of Trustees.

The portrait-group of Doctors Halsted, Kelly, Osler, and Welch, painted by John S. Sargent, R. A., was unveiled on the evening of January 19, 1907, in McCoy Hall. The painting was hung at the south end of the hall, where the wall had been appropriately draped. The portrait-group was presented to the University by Miss Garrett and accepted on behalf of the Trustees by President Remsen. The Sargent portrait of Miss Garrett was hung in the panel to the left. Dr. Welch gave an account of some of the experiences of the sitters, and Mr. Royal Cortissoz,
of the *New York Tribune*, spoke of Sargent as an artist. The substance of the addresses is given in University Circular No. 194, February, 1907. The painting was exhibited in Washington at the Corcoran Gallery and in Pittsburg at the Carnegie Institute. On its return to Baltimore it was hung on the west wall of the Donovan Room, together with Sargent's portrait of Miss Garrett and Beckwith's portrait of President Gilman. Several requests have been received for the loan of the painting, but the Trustees, feeling that it should not be exposed to further risk involved in transportation, have recently adopted a resolution declining to grant these requests.

The University has received from Messrs. R. B. Keyser, Robert Garrett, Waldo Newcomer, William II. Buckler, Julian LeRoy White, Richard J. White, and Howard A. Kelly about $2,800, for the purchase and installation of Roman antiquities. A collection was made during the year 1906-07 by Professor H. L. Wilson, while resident in Rome as a member of the staff of the American School of Classical Studies, and includes ancient Latin inscriptions and other objects illustrating ancient Roman life, such as bronzes, terra-cottas, jewelry, etc. The donors have since given the sum of $550 for the purpose of providing appropriate cases for the preservation and exhibition of the collection.

By resolution of the Trustees, October 1, 1906, the Finance Committee was authorized to invest the income of the Adams Memorial Fund, until the Fund should amount to $50,000; and it was to be maintained at that amount and the income used for the purposes for which it was donated to the University. The Fund now amounts to $50,000, and the income is available.

Mr. R. T. II. Halsey, of New York, gave the sum of $2,400 to supply an expert assistant to Professor Barker in the chemical division of the clinical laboratory.
From the Egypt Exploration Fund we have received some valuable antiquities from Deir el-Bahari, through the instance of Mr. James Teackle Dennis, of Baltimore.

Miss Rolando, of Baltimore, has presented a collection of ancient coins, belonging to her deceased brother, Dr. Henry Rolando, a graduate of this University.

A bust of Seneca has been presented by Dr. J. Ackerman Coles, of New York, in memory of his father, the late Abraham Coles.

Mr. Abram G. Hutzler continued his annual gift of five hundred dollars for the purchase of economic books; and the fund devoted to the study of labor organizations has also been added to by the donor whose gift made this work possible.

Among the gifts to the library the following are especially worthy of note:

The Warrington Dispensary Library of Medical Classics, from Mr. William A. Marburg, of Baltimore. The formal acceptance and installation of these books took place on the evening of January 2, when addresses were delivered by Professors Osler, Welch, and Williams. At the same time the collection of books on the subject of Teratology, given by Mr. Francis M. Jencks, acknowledgment of which was made in the last report, was formally accepted. Mr. Marburg has supplemented his gift by paying the cost of transportation and of the requisite book-cases and other expenses connected with the installation of the library.

From Dr. E. R. L. Gould, of New York, a large number of pamphlets and monographs dealing with economic and sociological subjects.

PUBLIC LECTURES

The third course of lectures on the Herter foundation was given in the auditorium of the physiological building, October 8, 9, 10, by Sir Almroth E. Wright, M. D.
F. R. S., Pathologist of St. Mary's Hospital, London. The subject was the "Therapeutic Inoculation of Bacterial Vaccines and its application in connection with the Treatment of Bacterial Disease."

The Percy Turnbull Memorial Lectures on Poetry were given in McCoy Hall, February 14-26, by Eugen Kühnemann, Ph. D., Professor of Philosophy in the University of Breslau. The lectures were given in German, and the subject was "Deutsche Dichtung in der Zeit ihrer größten Blüte."

Professor Maurice Bloomfield delivered six lectures in McCoy Hall on the "Religion of the Veda, the Ancient Religion of India," November 5-16.

A course of five lectures on Biblical Archaeology, having especial reference to the Identification of Sites, was given in McCoy Hall, December 4-17, by Dr. Frederick J. Bliss, late Field-Officer of the Palestine Exploration Fund.

Professor John Dewey, of Columbia University, gave ten lectures on "The Development of Greek Philosophy," between December 13 and January 19. The course was given in Levering Hall, and was open to the public.

Public lectures were given in McCoy Hall by members of the Faculty, January 7 to February 8, as follows: The Historic Peninsula of Virginia: Impressions of a Summer Traveler, by Dr. Gilman; The Persistence of the Greek Element in Modern Culture, by Professor Gildersleeve; A Trip to Alaska, by Professor Clark; Light and Color in their Relation to Painting, by Professor R. W. Wood; A Speculative Defense of Poetry and a Verification of the Defense, by Professor Bright (two lectures); The Labor Problem, by Professor Hollander; Radium and Radioactivity, by Professor Jones; The Blue Mountains of Jamaica, by Professor D. S. Johnson; Oyster Culture in Maryland, by Professor Grave; The Salton Sea of Lower California, and some Volcanoes visited in 1906, by Professor Reid; A Day with a Greek Householder, by Dr. D. M. Robinson.
The annual course of four lectures on American History, by Dr. James Schouler, was delivered March 5, 6, 7, 8, the specific subject being "Ideals of the American Republic."

Dr. Theodore C. Foote has continued his course in the study of the Bible, for persons not connected with the University, giving twenty lessons, Saturday mornings.

The following lectures have also been open to the public:

Mrs. John M. Glenn, of Baltimore, on "Personal Experiences in Relief Work in San Francisco," October 24.


Professor Charles C. Blackshear, of the Woman's College, Baltimore, on "Structures of the Buddhists in Ceylon and of the Jains and Muhammadans in India," January 4.

Professor John B. Henneman, of the University of the South, two lectures entitled respectively "The Beginnings of Shakespeare's Art: The Literary Influences of Shakespeare's Early Period" and "The Height of Shakespeare's Art: The Themes of Tragedy," January 21 and 23.

Professor Ernest C. Moore, of the University of California, on "Education as a University Subject," February 23.

Professor Alexander T. Ormond, of Princeton University, on "Tendencies in American Thought," April 9.

The two hundredth anniversary of the birth of the Italian poet, Carlo Goldoni, was observed February 27 by a lecture on his life and works by Dr. James E. Shaw.

Meetings by outside organizations have been held in our halls, as follows:

Under the auspices of the Baltimore Society of the Archaeological Institute of America the following lectures have been given in McCoy Hall: Rev. F. E. Hoskins, of Beirut, Syria, on "Recent Journeys into Moab and Edom,"
February 7; Professor W. P. Mustard, of Haverford College, on "Roman Remains in the South of France," April 15. The annual meeting of the Society was held in the Donovan Room, November 15.

Before the Municipal Art Society, lectures have been delivered in McCoy Hall, as follows: Mr. Royal Cortissoz, on "Velasquez," November 16; Mr. F. Hopkinson Smith, on "Pessimism and Realism in Art and Literature," January 8; Mr. Ernest Fenollosa, on "Chinese and Japanese Painting," March 18; Mr. John Quincy Adams, on "Municipal Art in the United States," April 17.

Rev. Dr. W. W. White, of New York, gave eight weekly lectures on the Bible, under the auspices of the Young Men's Christian Association of Baltimore, in McCoy Hall, January 21 to March 11.

A lecture was given before the Engineers' Club of Baltimore, by Mr. C. W. Hendrick, Chief Engineer of the Sewerage Commission, on the "New York Subway," in McCoy Hall, December 8.

A course of five illustrated lectures on "Italy" was delivered in McCoy Hall, February 14 to March 21, by Mr. J. Frederick Hopkins, Director of the Maryland Institute Schools of Art and Design.

Mr. W. H. Mallock, of England, gave three lectures on Socialism, in McCoy Hall, March 14, 15, 16, under the auspices of the National Civic Federation.

Dr. C. F. Langworthy, of the Agricultural Department at Washington, lectured in McCoy Hall, February 28, on "Recent Nutrition Investigations."

The annual meeting of the Federated Charities of Baltimore was held in the Donovan Room, November 8, the annual public meeting in McCoy Hall, November 15, and a joint meeting with the St. Vincent de Paul Society in the Donovan Room, March 4.

Meetings of the Educational Society of Baltimore were held February 21 in the Donovan Room, and on April 19

Mr. E. C. Hutcheson, of the Peabody Conservatory of Music, gave a piano recital in McCoy Hall, March 19, for the benefit of the Scholarship Fund of the Woman's College Alumnae, and again April 15, in behalf of the Light Street Free Kindergarten.

The Baltimore Branch of the American Institute of Bank Clerks held their annual meeting, with a lecture, in McCoy Hall, March 15.

A lecture before the Children's Play Ground Association was given in Levering Hall, April 15.

The Maryland Branch of the National Red Cross Society met in the Donovan Room, November 6; the Farmers' League of Maryland, met in the Donovan Room, December 20; the Maryland Society for the Prevention and Relief of Tuberculosis, in McCoy Hall, February 12; the Medical and Chirurgical Faculty of Maryland, in McCoy Hall, February 28.

ADMISSION OF WOMEN

At a meeting of the Academic Council held April 1, 1907, it was unanimously voted to recommend to the Trustees that women be admitted to the graduate courses of the University. Acting in accordance with this recommendation the Trustees unanimously adopted the following resolution:

"The recommendation of the Academic Council, approved by the Executive Committee, viz: that women who have taken the baccalaureate degree at institutions of good standing be admitted to graduate courses in this University provided there is no objection on the part of the instructor concerned, was approved by the Board."

It will be observed that this action refers only to graduate students. There is no intention of admitting
Report of the President

women to the undergraduate classes of the University. I take the opportunity to emphasize this fact, as the action of the Trustees has to some extent been misunderstood. Up to this time the Johns Hopkins University has been the only prominent University in the country that has not admitted women to the graduate courses, and it seemed to the Trustees and the Academic Council a simple act of justice to give properly trained women the opportunity to take advantage of our higher work. It does not seem probable that a large number will soon take advantage of the opportunity thus offered, though, even if they should, it does not appear to the authorities that their presence would be disadvantageous to the highest aims of the University. The medical instruction has been open to women from the beginning.

HOMEWOOD

Attention is called to the report of the Secretary of the Homewood Committee. This shows that there has been considerable activity in the line of the development of the grounds. A committee, consisting of Messrs. Buckler, Keyser, Levering, Marburg, Remsen, Venable and White was appointed by the Board of Trustees to take charge of everything pertaining to Homewood. Mr. Buckler was chosen chairman, but, owing to his acceptance of an appointment in the diplomatic service of the United States, he resigned at the end of the year, and Mr. Randall was chosen his successor. The Committee recommended to the Board that Professor E. B. Mathews be appointed permanent secretary of the Committee, and this appointment was duly made.

The athletic field has been completed and will be opened for inter-collegiate games at the beginning of the academic year, 1907-1908. The immediate care of Hopkins Field is entrusted for the present to Messrs. Mathews, Straus and Abercrombie.
I quote here from the report of the Secretary of the Homewood Committee, printed as an appendix to this report: “Contracts have been let for the rough grading of the botanical gardens in accordance with the plans prepared by Mr. Shurtleff, and for the greenhouses after the plans of Messrs. Parker and Thomas. The bids received for the erection of the potting house were so high that it was deemed advisable to postpone the erection of this, the first of the permanent buildings, until another year.

“During the year the University deeded to the city a strip of land 32 feet wide along the Charles-street front, which has led to the improvement of this boulevard by the city authorities. According to the plans which the city is now following, Charles street, along the entire front of the University property, will be laid out as a boulevard 130 feet wide. In the centre will be a 40-foot driveway of bitulithic, on either side of which are to be shaded walks 26 feet wide, skirted by narrower roadways and sidewalks facing the property on either side. With the completion of this improvement the University property will be entirely surrounded by city driveways. On the north is University Parkway, 120 feet wide, on the east, Charles street, 130 feet wide, and, on the south and west, Wyman Park with a driveway and walk extending from Charles and 30th streets to the Stony Run Bridge at the western end of University Parkway.”

The Trustees have given much thought to the important problem of moving to the new site. Various suggestions have been made, but thus far no practical method has been devised that would make it possible to move without seriously hampering the work at present in progress in the old buildings, and all agree that this would be unwise. The University is now using its entire income for educational purposes and is urgently in need of more. Without the promise of a considerable increase in our income the borrowing of enough money for the Home-
wood buildings would cut down the amount available for university work and seriously handicap that work.

The Homewood problem can indeed be stated in a simple way, but its solution is not simple. There are three ways of solving it:

1. By gift of the sum necessary. This may be said to be about $1,000,000. With that amount available the work of the University could be transferred to Homewood without interference with the present work.

2. By sale of the Howard street property.

3. By borrowing the necessary money. This, as pointed out above, would lead to difficulties, unless special provision were made for the interest charges, independently of our present income.

It should be added that the cost of maintenance will no doubt be greater at Homewood than at present, and it will be necessary to provide for this additional expense. It is earnestly to be hoped that some friend or friends of the University will before long make the occupation of the new site possible.

Respectfully submitted,

IRA REMSEN,
President.

December 18, 1907.
Mathematics

Professor Morley gave the following courses:

Higher Geometry. *Twice weekly through the year.*
The time was largely devoted to developing a theory of basic
spreads. Certain extensions of a theorem of Desargues were also
fully considered.

Dynamics. *Twice weekly, first half-year.*
This course of exercise in theoretical dynamics was given for
the first time. The preliminary work on Potential took so long
that but little attention could be spared to Rigid Dynamics. The
course will probably be given every other year.

Theory of Functions. *Twice weekly, second half-year.*
This course was principally an account of Weierstrass’s
elliptic functions with numerous applications to geometry.

Dr. Cohen gave the following courses:

Elementary Theory of Functions. *Twice weekly through the
year.*
This course had the character of an introduction to the Modern
Theory of Functions. In the first half-year the study of the
theory of functions of a single complex variable from the point
of view of Weierstrass was taken up. The ground covered was
essentially that of the first seventeen chapters in Harkness and
Morley’s Introduction to Analytic Functions. In the second half-
year the subject was taken up from the Cauchy-Riemann point of
view. Application to singly and doubly periodic functions were
studied.

Lie’s Theory of Differential Equations. *Three times weekly, first half-year.*
This course was devoted to the applications of Lie’s theory of
continuous point and contact transformations to the solution of
ordinary differential equations of the first and second orders, and
of partial differential equations of the first order. As much of the
theory as was necessary was developed in the course.

Theory of Numbers. *Three times weekly, second half-year.*
In this course the study of the theory of integers was studied.
Frequent references to Dirichlet, Mathews, Borel and Bachmann
were made.

Dr. Coble gave the following course:

Theory of Correspondence. *Twice weekly, through the year.*
This course was prefaced by a brief account of some theorems
concerning plane curves. Correspondences on the plane and on
algebraic curves, and theory of groups of points on an algebraic curve were studied. Cremona transformations in the plane were then considered. The course closed with a detailed study of a Cremona group of order 120 and of its application to the binary quintic.

The books discussed in the reading class were Hilbert's *Grundlagen der Geometric* and Grace and Young's *Algebra of Invariants*.

The Seminary met weekly.

The American Journal of Mathematics is in its twenty-ninth volume. A portrait of Professor Hilbert appeared in the January number.

The usual undergraduate courses were given by Professor Huburt, Dr. Cohen and Dr. Coble, with the addition of a course on Vector Analysis by Dr. Cohen.

**Frank Morley,**  
*Professor of Mathematics.*

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**Physics**

The Physical Laboratory has been open daily during the year for the work of advanced and undergraduate students. Regular courses of lectures have been given, and meetings have been held weekly for the reading and discussion of the current journals. The Physical Seminary has also met once each week, and the list of papers presented is given below.

The regular courses of instruction were as follows:

By Professor Ames:
1. Physical Seminary. *One hour weekly, through the year.*
2. General Physics: Thermodynamics, Heat Conduction and Radiation. *Four hours weekly, through the year.*
3. General Physics (Physics I). *Three hours weekly, through the year.*
4. Journal Meeting. *One hour weekly, through the year.*

By Professor Wood:
1. Physical Optics. *Two hours weekly, through the year.*
2. Advanced Physical Optics. *One hour weekly, through the year.*

By Professor Bliss:

General Physics (Physics II). *Three hours weekly, through the year.*

By Dr. J. B. Whitehead:
1. Applied Electricity. *Two hours weekly, through the year.*
2. Applied Electricity: Advanced Course. *Two hours weekly, through the year.*
By Dr. A. H. Pfund:
1. Radioactivity. Weekly, first half-year.
2. Electric Discharge in Gases. Weekly, second half-year.

By Mr. L. E. Jewell:
The Elements of Physical Astronomy. Weekly, through the year.

The laboratory work for undergraduates has been under the direction of Professor Bliss, with the assistance of Dr. Whitehead, Dr. Pfund, Mr. Anderson, and Mr. Ives. The work in Applied Electricity has been directed by Dr. J. B. Whitehead, and that of the Astronomical Observatory by Mr. L. E. Jewell. The advanced work and the original investigations have been under the direction of Professors Ames and Wood.

In the Physical Seminary, papers on the following subjects were read and discussed:

Professor Bliss—Dynamical Theory of Radiation.
Professor Reid—Earthquakes.
Dr. Pfund—Structure of Spectrum Lines; Uses of the Interferometer.
Mr. J. A. Anderson—Mechanism of Radiation of Spectra.
Mr. H. E. Ives—Lippmann Photography; Diffraction Theory of the Microscope.
Mr. W. W. Strong—Value of Absolute Zero; Laws of Absorption Spectra.
Mr. L. O. Grondahl—Corresponding States; Refrigerating Engines.
Mr. F. L. Cooper—Continuity of Liquid and Gaseous Phases; Band Spectra.
Mr. T. S. Carter—Recent Work on Fluorescence; Gas Engines.
Mr. D. V. Guthrie—Adiabatic Equilibrium; Metallic Conduction.
Mr. H. C. Rentschler—Thomson-Joule Effect; Osmotic Pressure.
Mr. C. M. Kilby—Recent Work on Calorimetry; Relative Motion of Ether and Matter.
Mr. G. B. Clinkscales—Thermo-electricity.
Mr. W. F. Schulz—Ratio of Specific Heats.
Mr. J. I. Shannon—History of Heat Instruments.
Mr. G. W. Vinal—Recent Work on Thermometry.
Mr. C. F. Lorenz—Polarization of X-rays.

There were fifteen advanced students who followed Physics as their principal subject. Three of these have absolved the requirements for the degree of Doctor of Philosophy; their names and the titles of their dissertations are as follows:

T. S. Carter—The Absorption and Fluorescent Spectra of Potassium Vapor.
J. A. Anderson—On the Emission, Absorption and Reflection Spectra of Neodymium and Erbium.
During the year Professor Wood has continued his investigations on the Fluorescence of Sodium Vapor upon monochromatic stimulation, and the Fluorescence and Absorption of Mercury and other vapors.

Mr. L. O. Grondahl has begun, under the direction of Dr. Whitehead, an experimental investigation on various methods for the rectification of alternating currents.

Mr. W. W. Strong has been engaged during the year upon a series of observations of the spontaneous ionization of the atmosphere.

Mr. H. C. Rentschler has begun a research with the object of measuring the dispersion of gases.

Mr. D. V. Guthrie and Mr. W. F. Schulz have been engaged upon an investigation of the selective reflection of various salts and metals.

Mr. C. F. Lorenz has studied the ionization of the acetylene flame under various conditions.

Dr. A. H. Pfund has been making a re-determination of the wave-lengths of certain standard metallic lines in order to determine the necessary corrections to be applied to Rowland's standard wave-lengths.

Mr. L. E. Jewell has devoted his time during the year to putting in good condition the dividing engines of the laboratory. One of the machines has been completely re-made, and many improvements have been made in the other one.

During the year the local branch of the American Institute of Electrical Engineers has held regular meetings in the laboratory and many interesting papers have been presented.

J. S. Ames,
Professor of Physics.

Chemistry

The lecture and class-room instruction in Chemistry, which has been given during the past year, is indicated below:

By President Remsen:

The Chemistry of the Compounds of Carbon. *Three times weekly, through the year.*

Meetings for reports on the Current Progress of Chemistry. *Weekly, through the year.*

By Professor Morse:

Inorganic Chemistry. *Twice weekly, through the year.*

By Professor Jones:

Physical Chemistry. *Three times weekly, through the year.*

The Electrical Nature of Matter and Radioactivity. *Weekly during the second half-year.*
By Dr. Acree:

Physico-Organic Chemistry. Short series during second half-year.

By Professor Renouf:

Special Topics in Chemistry (Undergraduate Chemistry, 4). Weekly through the year.

General Chemistry (Undergraduate Chemistry, 1). Three times weekly, through the year, with weekly reviews by Mr. Johnson.

By Dr. Gilpin:

Inorganic and Organic Chemistry (Undergraduate Chemistry, 3). Three times weekly, through the year.

Advanced Inorganic Chemistry and Qualitative Analysis (Undergraduate Chemistry, 2). Three times weekly, through the year.

The number of students working in the laboratory was 105 during the first half-year, and 109 during the second. During the first half-year 32 of these were graduates and 25 were following Chemistry as their principal subject; during the second half-year the graduates numbered 36, 25 of them following Chemistry as their principal subject.

President Remsen has had general supervision of the work in organic chemistry.

Professor Morse has had charge of the work in quantitative chemistry, and under his supervision Dr. Frazer and Messrs. Dunbar, Holland, Holmes, Lovelace, and Rogers have been engaged in research.

Professor Jones has directed the work in physical chemistry, and under his guidance Messrs. Anderson, Pearce, Stine, and Veazy have been engaged in the investigation of certain problems in physical chemistry.

Dr. Acree has been engaged in research work and has had the co-operation of Messrs. Johnson, Nirdlinger, and Shadinger in this work.

Dr. Tingle has assisted President Remsen in editing the American Chemical Journal and has directed the research work of Messrs. Blanck, Gorsline, and Williams.

Dr. Gilpin has had the assistance of Mr. Cram in research work.

The laboratory work of the undergraduates has been under the direction of Professor Renouf and Dr. Gilpin, with the assistance of Messrs. Holmes, Morse, and Schmidt.

Under grants from the Carnegie Institution to Professors Morse and Jones, Dr. Frazer and Mr. Anderson have been engaged in the investigation of problems on osmotic pressure and solutions respectively.

The following students have absolved the requirements for the degree of Doctor of Philosophy. Their names and the titles of their dissertations are as follows:

F. C. Blanck.—The Nitration of Aniline and Certain of Its Derivatives.
P. B. Dunbar.—The Osmotic Pressure of Cane Sugar Solutions in the Vicinity of 4° Centigrade.

W. W. Holland.—The Osmotic Pressure of Cane Sugar Solutions in the Vicinity of the Freezing-Point of Water.

H. N. Holmes.—Electric Osmose.

B. F. Lovelace.—The Osmotic Pressure of Glucose Solutions.

J. N. Pearce.—Dissociation as Measured by the Freezing-Point Lowering and by Conductivity-Bearing on the Hydrate Theory. The Composition of the Hydrates formed by a Number of Electrolytes.

F. M. Rogers.—The Osmotic Pressure of Glucose Solutions in the Vicinity of the Freezing-Point of Water. The Use of Weight-Normal Solutions in the Measurement of Osmotic Pressure.


C. M. Stine.—The Effect of One Salt on the Hydrating Power of Another Salt Present in the Same Solution.

W. R. Veazey.—The Conductivity and Viscosity of Solutions of Certain Salts in Water, Methyl Alcohol, Ethyl Alcohol, Acetone, Nitrobenzene and Binary Mixtures of These Solvents.


Volumes XXXVI and XXXVII of the American Chemical Journal have been issued during the past year.

H. N. Morse, 
Professor of Analytical Chemistry and Adjunct Director of the Laboratory.

Geology

The Geological Laboratory was open during the year for the work of both advanced and undergraduate students. Lectures and class-room work were conducted as follows:

(a) Geology I. Mineralogy and Physiography, by Dr. Swartz. Four lectures and two afternoons of practical work each week throughout the year.

(b) Geology II. Dynamic and Historical, by Dr. Swartz. Four lectures and two afternoons of practical work each week throughout the year.

(c) Geology III. Applied Geology, by Professor Mathews. Four lectures and two afternoons of practical work each week throughout the year.

(d) Economic Geology, by Professor Clark. Two lectures each week throughout the year.

(e) Geological Physics, by Professor Reid. Two lectures each week throughout the year.
Geology

(f) Optical Mineralogy, by Professor Mathews. *Three lectures and two afternoons of laboratory work each week throughout the year.*

(g) Geological Field Methods, by Professor Mathews. *One afternoon each week for one-half year.*

(h) Geological Conferences. *Weekly, throughout the year.*

*Original Work and Publications.* Original work was carried on by Professor Clark, in conjunction with several assistants, on various phases of Maryland geology, the results of which are appearing from time to time in the reports of the Maryland Geological Survey and other scientific publications. Professor Clark was also engaged, as in earlier years, in a general study of the Mesozoic and Cenozoic Echinodermata of the United States, in conjunction with Dr. M. W. Twitchell. He was also actively employed in the management of the State Geological Survey and the State Weather Service, and in the supervision of the publications of these two bureaus, both of which are carried on under the auspices of the University. As a geologist of the U. S. Geological Survey, Professor Clark has also been engaged, with the assistance of others, in a study of the Coastal Plain formations from New Jersey to North Carolina. Professor Clark attended during the summer vacation the Centenary of the Geological Society of London as delegate from the University.

Professor Reid has continued his seismological studies and, as a member of the California State Earthquake Investigation Commission, has been engaged in preparing a part of the report of that Commission. He is the delegate from the United States to the International Seismological Association and attended the meeting of its permanent commission at Rome in October, 1906, and its general assembly at The Hague in September, 1907. He is also in charge of the earthquake records of the United States Geological Survey.

Professor Mathews has devoted his time to the completion of his report on the history of the Mason and Dixon Line and has the manuscript ready for the printer. A report on the counties of Maryland, dealing with their origin, their boundaries, and election districts, has also been put into the hands of the printer and will be issued shortly. Much of Dr. Mathews’ time has been devoted to the compilation and editing of the new large-scale wall map of the State of Maryland, which is accompanied by special maps representing the political boundaries and physical characteristics of the State, and a gazetteer including information regarding the 2,400 places which have been accurately located on the general map. The investigations of the geology of the Piedmont Plateau of Maryland have been continued by Dr. Mathews with the assistance of certain of the graduate students, and this work has now extended into Carroll and Frederick counties where many new facts of scientific interest have been discovered. In connection with the Maryland Geological Survey Dr. Mathews, as Assistant State Geologist, has had charge of certain phases of the work and of the editing of the various publications of the bureau.

Dr. Swartz has continued his investigations of the Upper Devonian of Maryland, assisted by Mr. D. W. O’Hern, a graduate student of the University. It has been shown that the Ithaca
fauna of New York extends southward into Maryland and the conditions under which it existed have been studied. A preliminary report upon this work was published in the University Circulars. He has also been engaged in the study of the geology of western Maryland preparatory to the publication of the geological map of Allegany County by the Maryland Geological Survey and of several folios of the U. S. Geological Survey.

Mr. Berry has continued his investigations of the Potomac and later floras of the Atlantic Coastal Plain, extending the work into Virginia, South Carolina, and Alabama for the U. S. Geological Survey, and continuing it in New Jersey, Maryland, and North Carolina for the Surveys of those states. Several preliminary papers upon these floras have been published, and the correlation of the containing formations and the work on the final reports are well under way.

Dr. Fassig continued his detailed study of the climate of Baltimore and has completed his monograph on this subject; Part 1 was issued in 1905 and Part 2 is now in press. Dr. Fassig is in active charge of the work of the State Weather Service, in addition to his duties as the Baltimore representative of the U. S. Weather Bureau.

Excursions. Numerous excursions were made with the graduate and undergraduate students into characteristic areas in the Coastal Plain, the Piedmont Plateau, and the Appalachian Region, as in former years. These excursions are regarded as an important adjunct to the class-room and laboratory work.

Some of the results of the work carried on by the department during the academic year were published in the July number of the University Circular.

Scientific Societies. The fortnightly meetings of the Geological Society of Washington, as well as the meetings of the National Geographic Society, are attended from time to time during the winter by the instructors and students. By the courtesy of the Geological Society of Washington, the graduate students of this department are elected to non-resident membership in that body.

Co-operation. Active co-operation was maintained, as in the past, with the chiefs of several of the National and State bureaus. The co-operation of the U. S. Geological Survey, through its chiefs, Hon. Charles D. Walcott and his successor, Dr. George Otis Smith, a graduate of this University, and also of the U. S. Weather Bureau, through its chief, Professor Willis L. Moore, have been of much importance to the work of the department.

Apparatus and Collections. Several valuable additions have been made to the apparatus and collections during the year. The library has been considerably enlarged by gifts of books and maps. Professor Cleveland Abbe in particular has added many books to the meteorological library which bears his name.

WM. BULLOCK CLARK,
Professor of Geology.
Zoology and Botany

During the past academic year the Biological Laboratory has been open for advanced and collegiate students, and lectures and classroom instruction have been given as follows:

By Professor Brooks:
General Zoology. For graduate students. Two lectures a week, from October 1 to May 1.
Meetings of graduate students for reports on the current literature of Zoology and Botany. (With Professors Johnson, Andrews and Jennings). Weekly throughout the year.

By Professor Johnson:
Morphology of Reproduction in Plants. For graduate students. Eight hours a week, throughout the year.
Botanical Seminary. For graduate students. Twice a week, from January 1 to April 1.
[The work was based on Goebel’s Organography of Plants and was illustrated by the botanical collections of the laboratory.]
Elementary Botany (Undergraduate Biology 2). From February 15 to the end of the session.
Excursions for the study of native plants. Twice a month, October, November, March, April, May.

By Associate Professor Jennings:
Physiological Zoology (Undergraduate Biology 2). From October 1 to February 15.

By Associate Professor Andrews:
General Biology (Undergraduate Biology 1). From October 1 to March 1.
Embryology (Undergraduate Biology 1). From March 1 to the end of the session.
Natural History, From February 1 to the end of the session.

By Dr. Cowles, Instructor in Biology:
Non-Pathogenic Bacteria.

Advanced Work in Zoology

Dr. H. S. Jennings, Associate Professor of Physiological Zoology, was promoted to the rank of Professor of Experimental Zoology.
The degree of Doctor of Philosophy was conferred upon B. McGlone, whose dissertation is on “The Anatomy and Life-history of Moira atropos.”
The dissertation on “The Natural History, Organization, and Late Development of the Teredinidae” by C. P. Sigerfoos, who received the degree of Doctor of Philosophy in 1897, has been printed, and sent to the library in accordance with our rules;
also the dissertation of Samuel Rittenhouse (Ph. D., 1905), on "The Embryology of Turritopsis nutricula."

S. O. Mast, Ph. D., was appointed Johnston Scholar, I. F. Lewis was appointed Adam T. Bruce Fellow, and J. F. Daniel a University Fellow.

During the year sixty-nine illustrations for a memoir on the embryology of Cyclosalpa pinnata, upon which Professor Brooks has been engaged for the last five years, were finished, and the few that are needed will be completed next year.

Dr. Jennings devoted the last half-year and the summer vacation to the study of heredity, variation, conjugation, and related matters in the Protozoa. A large amount of material has accumulated as the results of this work, and much of it is now nearly ready for publication. The investigations are still in progress, and are to be continued next year.

Mr. J. Frank Daniel has investigated the effects of alcohol and other substances on the lower forms of animal life. This work is to be continued next year.

Dr. Grave had leave of absence for the year and continued his work as Secretary of the Shellfish Commission of the State of Maryland.

**Advanced Work in Botany**

Professor Johnson gave a public lecture in January on "The Blue Mountains of Jamaica." He also had charge of the instruction in Cryptogamic Botany during the summer at the Marine Laboratory of the Brooklyn Institute of Arts and Sciences. He was elected Secretary of the Botanical Society of America at the first meeting of this union of societies in December, 1906.

Dr. H. S. Conard, James Buchanan Johnston Scholar from February, 1905, to June, 1906, was appointed Professor of Botany in Iowa College in August, 1906. Dr. Conard's monograph on Denstedtia, embodying the results of his researches while here, is now in the hands of the Carnegie Institution awaiting publication.

Mr. F. H. Blodgett assisted, during the summer, in the Botanical Survey of Maryland which is being conducted by Professor Shreve.

Mr. W. D. Hoyt continued, as Temporary Assistant of the U. S. Bureau of Fisheries, his study on the distribution and life-history of the seaweeds of Beaufort, N. C.

Mr. I. F. Lewis was appointed Instructor in Botany at the Marine Biological Laboratory, Woods Hole, Mass., for the summer of 1907.

The following papers by investigators in the laboratory have been published, or are now in press:

E. A. Andrews:

The Young of the Crayfishes Astacus and Cambarus. Smithsonian Contributions to Knowledge. Vol. xxxv, October, 1907.
No. 1718, pp. 1-79, with 10 Plates.
The Keeping and Rearing of Crayfishes for Class Work. (The Nature Study Review, vol. ii, No. 9, December, 1908.)
The Attached Young of the Crayfishes, Cambarus Clarkii and Cambarus Diogenes. (*Amer. Nat.*, April, 1907, vol. xlI.)


Earthworms as Planters of Trees. (*Amer. Nat.*, November, 1907.)

Some Intracellular Connections in an Egg of a Fowl. (*Univ. Circ.*, March, 1907, with Plates iii and iv.)

W. K. Brooks:


The Homologies of the Muscles of the Subgenus Cyclosalpa. (*Univ. Circ.*, March, 1907, with 2 Figures.)


The Subgenus Cyclosalpa, 4 Plates. (In press; Carnegie Inst.)

W. K. Brooks and Carl Kellner:

The Appendicularia. (In press; Carnegie Inst.)

W. K. Brooks and B. McGlone:

The Development of Ampullaria. (In press; Carnegie Inst.)

W. K. Brooks and S. Rittenhouse:


H. S. Conard:

Monograph on Dennstaedtia punctulata. (In press; Carnegie Inst.)

R. P. Cowles:

Habits, Reactions and Associations of Ocypoda arenaria. (In press; Carnegie Inst.)

Cucumaria curata. (*Univ. Circ.*, March, 1907, 2 Figures.)

W. D. Hoyt:

Periodicity in the Production of the Sexual Cells of Dictyota dichotoma. (*Botanical Gazette*, June, 1907.)

Abstract of above in *Univ. Circ.*, March, 1907, with Plates 7 and 8.

H. S. Jennings:


Formation of Habits in the Starfish. (*Univ. Circ.*, March, 1907.)
Behavior of the Starfish. (Univer. of California Publications; Zool. Series.) Thanks are due to the San Diego Marine Biological Association for opportunity to make use of their Marine Station, and for a grant of money in aid of this investigation. (In press.)
The Rotifera. (In Ward's Fresh Water Biol. of N. A.) (In press.)

D. S. Johnson:
A New Type of Embryo-sac in Peperomia. (Univ. Circ., March, 1907, pp. 19-21, Plates v and vi.)
A. Botanical Expedition to Jamaica. (Univ. Circ., March, 1907.)

I. F. Lewis:
Notes on the Morphology of Coleochaete nitellarium. (Univ. Circ., March, 1907, pp. 29-30.)

C. Kellner:
Bericht ueber eine Oikopleura. (Zool. Anzeiger, xxxi, May, 1907, 3 Figures.) (Reprinted in Univ. Circ., March, 1907.) (See also W. K. Brooks and Carl Kellner.)

B. McGlone:
Notes on the Development of the Lung of Ampullaria depressa. (Univ. Circ., March, 1907, 2 Figures.) (See also W. K. Brooks and B. McGlone.)

S. Rittenhouse:

Forrest Shreve:
Studies on the Rate of Growth in the Mountain Forests of Jamaica. (Univ. Circ., March, 1907, pp. 31-37.)
The following papers are in preparation:

E. A. Andrews:
External Reproductive Organs of a Mexican Crayfish.

W. K. Brooks:
Biographical Memoir of Alpheus Hyatt.

R. P. Cowles:
An Experimental Study of the Habits of Ophiouroids.

H. S. Jennings:
Experimental and Statistical Investigation of Problems of Genetics in Protozoa.
Physiology

The following courses were given in Physiology during the session of 1906-1907.

By Professor Howell:

1. The physiology of nutrition and of the sense organs, arranged especially for the second year class in the Medical Department. *Four times weekly, from October to Christmas.*

By Professor Howell and Dr. Hooker:

2. The physiology of the tissues and of the sense organs. Arranged especially for the first year medical class. *Three times weekly from January to March 15.*

By Professor Dawson:

3. The physiology of circulation and respiration, first year medical class. *Three times weekly from March 15 to June.*

By Professor Dawson:

4. The physiology of the nervous system, first year medical class. *Twice weekly from March 15 to June.*

By Drs. Howell, Dawson, Eyster and Hooker:

5. Laboratory course in experimental physiology. *Daily, from 10 a. m. to 5 p. m., from October to Christmas.* Second year medical class.

By Professor Howell:

6. Laboratory course in experimental physiology. *Once weekly from 9 a. m. to 5 p. m., from January to June.* Arranged for students in the philosophical department.

7. The Physiological Journal Club, composed of instructors and advanced students in the department of physiology and intended for the systematic presentation and discussion of current literature. *Once weekly during the year.*

8. The Physiological Seminary, composed of instructors and advanced students, and intended for the presentation and discussion of physiological topics of general or historical interest. During the past session the chief work discussed was Merz's History of European Thought in the Nineteenth Century.
Mr. William H. Schultz held the fellowship in physiology and was engaged throughout the year in completing his experimental studies upon the general properties of cardiac muscular tissue. At the end of the year Mr. Schultz received his degree of Doctor of Philosophy, and accepted an appointment as instructor in physiology in the University of Missouri.

Dr. Ralph S. Lillie, who held a Johnston Scholarship, worked in the physiological laboratory during the year, and completed certain researches upon the osmotic pressure of colloidal solutions which have since been published. Dr. Lillie was reappointed to the scholarship at the end of the year, but subsequently resigned to accept a position as instructor in physiology in the University of Pennsylvania.

The following publications by members of the staff have appeared since the last report:


W. H. Howell,
Professor of Physiology.

Greek

Under the direction of Professor Gildersleeve the advanced students of Greek have been organized into a Greek Seminary. According to the plan of the Seminary, the work of each year is concentrated on some leading author or some special department of literature. During the past year the centre of work was Aristophanes.

In the Seminary proper, which met twice a week during the academic year, the Aristophanic comedies selected for closer
Greek

study were The Acharnians, The Frogs, and The Birds; and the members of the Seminary were required to present in turn critical and exegetical commentaries on parts of these plays. Introductory lectures to a number of the plays were also prepared by the students and made the subject of comment and criticism by the Director. In connection with the Seminary, the Fragments of the Old Attic Comedy were studied, and lectures were delivered by the Director on Aristophanes, his art and his times.

Besides conducting the Seminary course and the auxiliary work, Professor Gildersleeve delivered seventeen lectures on the stylistic significance of Greek Syntax, gave some eighteen readings in the Tragic Poets, and conducted twenty exercises in extemporary translations from Greek into English and English into Greek.

Associate Professor Miller conducted readings twice a week in Aristophanes (first half of the session), and gave a course of lectures and practical exercises in Greek Rhythms and Metres and in Prose Composition (second half of the session). He also conducted a Greek Journal Club weekly, through the year.

Undergraduate courses were conducted as follows:

Associate Professor Spieker:
- Thucydides (book 1). Twice weekly, first half-year.
- Lucian; Aristophanes, Frogs. Twice weekly, second half-year.
- Plato, Phaedo: Prose Composition. Three times weekly, first half-year.
- Lyric Poets; Sophocles, Ajax; Prose Composition. Three times weekly, second half-year.
- Lysias; Isocrates; Euripides, Hippolytus; Prose Composition. Three times weekly, through the year.

Associate Professor Miller:
- Xenophon, Memorabilia; Plato, Apology; Herodotus; Prose Composition. Four times weekly, through the year.

Undergraduates read privately for examination the following books:
- Plato, Crito.
- Homer, Odyssey (two books).
- Xenophon, Hellenica (book 1).
- Euripides, Cyclops.
- Elegiac Poets (selections).
- Aeschylus, Prometheus; Seven Against Thebes.
- Demosthenes, 54, 55.

Basil L. Gildersleeve,
Francis White Professor of Greek.

Latin

The organization and plan of the Latin Seminary are similar to those adopted in the department of Greek. Each year special attention is given to some leading department of the literature. The centre of work during the last session was the Roman
Comedy, more especially Plautus. Under the direction of Professor Smith, the Seminary met twice a week throughout the year. The members presented in turn papers founded upon various special investigations and prepared critical and exegetical commentaries upon given passages of Plautus, Terence, and Seneca. The work of the Seminary was accompanied by a course of lectures on Plautus given by the Director.

In addition to the Seminary course and the auxiliary work, Professor Smith lectured on the Roman Comedy, once a week, throughout the year.

During the first half-year he also lectured once a week on the Roman Theatre and once a week on the historical development of Latin Syntax. During the second half-year he gave a course of sixteen lectures on the Tragic Fragments of Livius, Naevius and Ennius. He also devoted one hour a week to the interpretation and discussion of select elegies of Propertius.

Mr. Ogle, the Fellow in Latin, met the advanced students once a week throughout the year for the rapid reading of Plautus, Terence and the Tragedies of Seneca.

Professor Wilson who was given leave of absence last June, spent the year abroad as Professor of Latin at the American School of Classical Studies in Rome. He was accompanied by Mr. Ralph Magoffin, a graduate student of this department who won a fellowship in the School for the year 1906-1907.

Undergraduate courses were given as follows:

Professor Smith:

History of Roman Literature. Weekly, through the year.

Dr. Barret:

Tibullus; Propertius; Ovid. Two hours weekly, first half-year.

Lucretius; Plautus. Two hours weekly, second half-year.

Catullus; Plautus; Cicero. Three hours weekly, through the year.

Livy; Horace; Vergil. Three hours weekly, through the year.

Roman Private Life. Weekly, first half-year.

Prose Composition. Weekly, through the year.

Undergraduates read privately for examination the following books:

Cæsar, Bellum Civile (book I).

Cicero, Cato Maior.

Cicero, Letters (selections).

Vergil, Aeneid (selections).

Quintilian (book x).

Terence (one play).


Kirby Flower Smith,
Professor of Latin.
Sanskrit and Comparative Philology

Classical Archaeology

Dr. Robinson lectured twice a week throughout the year on Pausanias and the Topography of Greece, and once a week on Strabo. He also lectured once a week throughout the year on Greek Sculpture, and once a week on Greek Life. Once a week throughout the year Greek epichoric and dialectic inscriptions were read.

Mr. Ralph Magoffin was Fellow of the American School of Classical Studies in Rome, and Professor Wilson was Professor of Latin in the same school during the past year.

David M. Robinson,
Associate in Classical Archaeology.

Sanskrit and Comparative Philology

At the beginning of the scholastic year (November 5-16, 1906) a course of six public lectures was given by Professor Bloomfield in McCoy Hall on the Religion of the Veda. This course formed the seventh of a series of courses on the History of Religions given during recent years in various American institutions of learning by European and American scholars. The lectures are arranged by the American Committee for Lectures on the History of Religions, of which Professor C. H. Toy, of Harvard University, is the chairman, and Professor Morris Jastrow, Jr., of the University of Pennsylvania, is the secretary. Professor Bloomfield's lectures were repeated in the course of the winter at Chicago, New York, Brooklyn, Hartford, Philadelphia, and Meadville. They will be published as one of the volumes of American Lectures on the History of Religions. A synopsis of the course is printed in the Johns Hopkins University Circular, 1906, No. 10 (Whole Number 192), p. 32.

The Vedic Seminary was engaged with the Atharva-Veda. The recent publication of Professor W. D. Whitney's posthumous translation (with critical apparatus) of this Veda (Harvard Oriental Series, edited by C. R. Lanman) lent a particular degree of interest to the Seminary work on this ancient text, which has been for many years the subject of much study and many publications in this University.

The first book of the Atharva-Veda was treated critically with especial reference to Whitney's work, and results were obtained that will advance still farther our knowledge of this Veda. A series of "Notes in Sanskrit," making up the Johns Hopkins University Circular No. 10, for 1906, was published during the year. It contains papers by Bloomfield, Barret, and Oliphant.

A second advanced course in Indic studies was devoted to Pāli, the sacred language of the Southern Buddhists, and to Buddhist literature. It began with a few lectures on the origin and character of Buddhism, and continued with Pāli grammar and abundant selections from Pāli literature. The course will be continued during the coming session (1907-8).
An elementary course of Vedic study was carried on during the second half-year. Its object was to introduce into the language and literature of the Vedas, and to correlate the Vedic language with the dialect of the Classical Sanskrit. A preliminary study of Vedic grammar, in which the metres, the accent, and the special phonetic, morphological and lexical peculiarities of the Vedic language claimed the chief attention, was followed by the interpretation of selected hymns of the Rig-Veda.

To the study of Classical Sanskrit were given four hours a week during the first semester and two during the second. The subjects were readings from the Mahābhārata, the Hitopadeśa, and the Law-book of Manu, including the regular beginner’s course of two hours weekly during the session. This latter, elementary, course is the formal introduction to the study of Indian philology, as well as of the Comparative Grammar of the Indo-European languages. Dr. S. G. Oliphant, Henry E. Johnston Scholar in Sanskrit and Comparative Philology, and Mr. H. H. Bender, Fellow in the same subjects, aided efficiently in these instructions.

Instructions in Comparative Philology were three-fold. First, a course of lectures on General Comparative Philology. This began with a brief history of the Science of Language and was followed during the greater part of the year by a sketch of the linguistic ethnology of the Indo-European peoples, dealing at first with their ethnical inter-relations, their early geography (the so-called Aryan question), and their common characteristics. Then came in brief survey sketches of India, the Vedas, Brahmanism, Buddhism; Iran, the Achemenidan inscriptions, the Zoroastrian (Avestan) language and religion; the Indo-European peoples on the boundary between Asia and Europe; the European peoples.

A course in the Comparative Grammar of the Indo-European languages dealt with the history of the noun-suffixes (formation of noun-stems), with particular reference to Greek, Latin, Teutonic, and German.

Dr. S. G. Oliphant conducted a course in the Lithuanian language and literature throughout the year.

Maurice Bloomfield,
Professor of Sanskrit and Comparative Philology.

Oriental Seminary

In the Oriental Seminary, under the direction of Professor Haupt, twenty-one courses in the various departments of Oriental research were given during the past year, special attention being paid to Biblical Philology and the Cuneiform Inscriptions bearing on the Scriptures.

Sixteen hours, through the year, were devoted to the study of Hebrew and the Old Testament. In the Old Testament Seminary, two hours weekly, through the year, Professor Haupt gave a Critical Interpretation of the Books of Jonah, Obadiah, Haggai, and Nahum, and portions of Amos and Zechariah. He also inter-
Oriental Seminary


Professor Haupt also conducted a series of weekly exercises in Hebrew Prose Composition, the students translating idiomatic English sentences into Hebrew. Dr. Rosenau met a class for the reading of Unpointed Hebrew Texts, weekly through the year. The instruction in Elementary Hebrew was given by Dr. Foote, two hours weekly through the year, while Dr. Blake conducted the Second Year's Course in Hebrew, including minute grammatical analysis of selected texts, and lectures on important topics of Hebrew grammar. Dr. Foote also gave a series of lectures, through the year, on the Prophets of Israel, with Interpretation of Selected Chapters of the Authorized Version, besides conducting a course in Hexateuchal Criticism. Dr. Ember gave, through the year, courses in Hebrew Conversation, in Cursory Reading of the Hebrew Bible (two hours weekly), and in Modern Hebrew (three hours weekly, during the first half-year, and two hours weekly during the second).

Associate Professor Johnston lectured, through the year, on the History of the Ancient East (Egypt, Babylonia, Assyria, Persia, Israel, and Judah), also, during the first half-year, on Ancient Egypt and the Bible, and, during the second half-year, on Cuneiform Inscriptions and the Old Testament.

Professor Haupt conducted a course in Comparative Semitic Grammar with special reference to the structure of the verb.

In Biblical Aramaic, Dr. Blake gave a course in Aramaic Grammar and the Interpretation of the Aramaic portions of the Book of Ezra.

In Syriac, Associate Professor Johnston met a class for the reading of Selections from the New Testament, the Chronicles of Bar Hebraeus, and the poems of Ephrem.

In Assyriology, Professor Haupt conducted a course in Comparative Assyrian Grammar and the Reading of Selected Bilingual Texts; he also gave a series of weekly exercises in Assyrian Prose Composition, the students translating from Hebrew into cuneiform.

In Egyptology, Associate Professor Johnston gave a course in Coptic through the year, and a course in Hieroglyphic Egyptian, two hours weekly through the year.

Professor Haupt conducted, through the year, a Journal Meeting for the purpose of hearing reports on the various Oriental Journals and on the original work of the members of the Oriental Seminary.

Mr. Louis B. Wolfenson presented himself as a candidate for the degree of Doctor of Philosophy. His principal subject was Semitic Philology, his two subordinate subjects were Sanskrit
and Egyptology. His thesis was entitled The Book of Ruth, with introduction, critically revised text, critical notes, translation, and explanatory notes.

A series of popular illustrated Lectures on Biblical Archaeology with special reference to the Identification of Sites, were delivered December 4, 7, 11, 14, 17 by Frederick J. Bliss, Ph. D., late field officer of the Palestine Exploration Fund. The topics treated were as follows: 1. The Scriptural Material: Extra Biblical Side-Lights; 2. Attempts at Identification from St. Jerome to Dr. Robinson; 3. The Scientific Period of Identification: Robinson, Conder; 4. The Function of Archaeology: The Excavated Sites; 5. At the Jaffa Gate: Jerusalem Impressions.

At the meeting of the American Oriental Society, held in Philadelphia, April 4, 5, and 6, sixteen papers were presented by members of the Oriental Seminary:—Professor Haupt: (a) The name Istar,—(b) Xenophon's account of the fall of Nineveh,—(c) The cuneiform name of the cachalot,—(d) The etymology of cabinet;—Associate Professor Johnston: (a) Some new cuneiform letters,—(b) Notes on nubattu and w'iltu,—Dr. Blake: (a) A bibliography of the Philippine languages,—(b) Contributions to comparative Philippine grammar, ii. The numerals,—(c) Connective particles in the Philippine languages,—(d) Notes on Hebrew phonology,—Dr. Foote: (a) Visiting sins upon the innocent,—(b) Note on Amos 1. 3,—Dr. Ember: Word-formation and loan-words in Modern Hebrew,—Dr. Wolfenson: (a) The use of the verbs lagaḥ and nasa with issa,—(b) On the origin of forms of the type of Hebrew sabbotha,—(c) The etymology and meaning of lahen in Aramaic.


At the meetings of the University Philological Association the following papers were read by members of the Oriental Seminary: (1) Professor Haupt (April 19): The Prophets of the Old Testament;—(2) Associate Professor Johnston (May 17): Some Phases of Babylonian Life in the Later Period;—(3) Dr. Rosenau (February 15): The Cairo Genizah;—(4) Dr. Blake (March 15): The Tagalog Ligature and Analogies in other Languages.

At the meeting of the Society of Biblical Literature in New York, December 27-28, 1906, Professor Haupt delivered the annual Presidential address on The Book of Nahum. He also presented two papers: (a) The Date of Obadiah,—(b) Cruses in Canticles.

Professor Haupt also published the following papers, viz. in the Zeitschrift der Deutschen Morgenländischen Gesellschaft, vol. lxx, pp. 194 and 275-297: (a) The Etymology of Aram,—(b) An Old Testament Festal Liturgy for the Celebration of Nicanor's Day;—in the Orientalistische Litteratur-Zeitung, vol. x, pp. 305-309 and 334 (June, 1907): (a) Scriptio plena of the emphatic la in Hebrew,—(b) Sinimmār,—(c) Ibid., p. 263 (May, 1907): The two basalt cachalots of Kileh Shergat;—in the American Journal
of Semitic Languages, April, 1907, pp. 220-263: (a) Psalm 68,—
(b) The Semitic roots qr, kr, zr.— (c) The Assyrian name of the sperm-whale;—in vol. xlvi (pp. 151-164) of the Proceedings of the American Philosophical Society; Jonah's Whale.

Associate Professor Johnston's new illustrated edition (450 octavo pages) of A. H. Sayce's Empires of the Ancient East, supplemented by a history of Arabia (based on the History of the Saracens in Gibbon's Decline and Fall of the Roman Empire) as well as by a History of Israel and Judah, was published towards the close of the session by J. D. Morris & Co., Philadelphia. Dr. Johnston also published the following papers:—(a) Review of Budge, The Egyptian Heaven and Hell in the May number of the American Journal of Theology.— (b) Review of W. M. Müller, Assyriological Researches.—and (c) Review of Breasted, Ancient Records of Egypt, in the July number of the American Historical Review.

Dr. Rosenau contributed an article on the History of the Jews to a new edition of the Encyclopaedia Americana.

Dr. Blake published in vol. xxvii of the Journal of the American Oriental Society, a paper on the expression of case by the verb in Tagalog, and a comprehensive article (pp. 316-336) on the Comparative Grammar of the Philippine Languages, comprising a discussion of the general features, phonology, and pronouns of these languages.

In the same volume also appeared Dr. Foote's article on the Metrical form of the Songs of Degrees, and Dr. Wolfenson's papers: The infixes la, il, lo in Tagalog, and The Hebrew Pi'el.

The second part of the sixth volume of the Contributions to Assyriology and Comparative Semitic Grammar, edited, with the cooperation of the Johns Hopkins University, by Professor Haupt, in conjunction with Professor Friedrich Delitzsch, of Berlin, was published at the beginning of the session: it contained the address on Purim (with 155 notes), which Professor Haupt delivered as Vice-President of the Society of Biblical Literature, New York, Dec. 27, 1905. Parts 1, 3, 4, and 5 of vol. vi of the Beiträge, containing papers by Billerbeck, Delitzsch, Ungnad, Dhorme, Ruzicka, Oppenheim, Van Berchem, Moritz, Euting, Hübschmann, etc., are in press and will be issued in the course of next session, also Professor Haupt's book on the Biblical Love-Songs with special reference to Goethe and Herder.

In the quarto series known as the Assyriologische Bibliothek, edited by Delitzsch and Haupt, there were issued part 3 of J. D. Prince's Sumerian Lexicon, part 3 of B. Meissner's Seltene assyrische Ideogramme, and vol. xxt containing E. Huber's Die Personennamen in den Keilschrifturkunden aus der Zeit der Könige von Ur und Nisrín (208 pp.).

In the Library, under the charge of Dr. Blake, work on the completion of the card-catalogue has been continued, the cards being furnished with a reference to the subject under which the book is grouped, so that reference may be made from the cards to the shelves without loss of time. The pamphlet boxes have also been furnished with a new set of labels. The Library was enriched by a number of important accessions in the various
fields of Semitic research, including additions to the Strouse Collection and a number of valuable volumes presented by Mr. William H. Buckler and the Very Rev. Joseph R. Slattery.

PAUL HAUPT,
W. W. Spence Professor of the Semitic Languages.

English

1. Advanced Courses.

The advanced students of English are organized into an English Seminary, which is conducted by Professor Bright. Graduate students are admitted to the Seminary as soon as they have satisfied initial requirements for independent research. The discipline of the Seminary is designed to impart training in scholarly methods of dealing with literary and linguistic problems. Study and investigation are bestowed upon selected periods of literary history, upon departments of literature extending through successive periods, and upon the works of important writers, separately or in groups. Usually there is a change of subject each half-year. Throughout the academic year 1906-1907, the Seminary met twice a week, in sessions of two hours each. Study and investigation were bestowed upon English and Scottish poets of the period following immediately after Chaucer. This course was begun by an examination of the entire works of John Gower. A survey was next taken of the influence of the Romaunt of the Rose, and the question of the authorship of the Kingis Quair was reviewed. The complete works of the following poets were then studied: John Lydgate, Thomas Hoccleve, Stephen Hawes, William Dunbar, Walter Kennedy, Gavin Douglas, and David Lindsay. The poetical works of John Audelay were also examined, the Buke of the Howlat, and the Complaynt of Scotlande.

Professor Bright lectured, once a week during the first half-year, on the Indo-European and the Germanic vowels and consonants with special reference to the Anglo-Saxon system. In the second half-year, Dr. Robert Lee Ramsay continued these lectures, twice a week, giving attention to a group of special problems in Anglo-Saxon and Middle English Grammar.

Throughout the year, Professor Bright conducted a class in the interpretation of Anglo-Saxon poems.

The Journal Club of the Seminary was conducted by Professor Bright. Sessions of two hours each were held on alternate Fridays, throughout the year, for reports of the current philosophical periodicals, reviews of new books, and the presentation and discussion of papers representing such independent investigations as were less directly connected with the concurrent work of the Seminary.

Professor Browne lectured once a week during the first half-year on the Transformations of English prose from the fourteenth century to recent times; illustrating from the best writers the changes in construction, tone, and style.
Professor Browne also lectured once a week during the second half-year, on the romantic movement in English literature at the close of the eighteenth and throughout the nineteenth century. Professor Browne also lectured once a week during the second half-year on Ben Jonson and his successors, with a study of his principles of dramatic art, and an examination of each of his plays. The work of his professed followers was also reviewed. Professor Browne gave two lectures on Mediaeval Astronomy and Astrology, with special reference to the astrological passages in Chaucer.

2. College Courses.

Dr. Ramsay conducted the class of the Fourth Year of Group II in Anglo-Saxon, three times a week during the first half-year, using Professor Bright's Anglo-Saxon Reader as a text-book. Professor Browne met the class, once a week during the second half-year, for a study of the Early Scottish Poets.

Professor Browne met the class in English Literature (Third Year of Group II) three times a week throughout the year. The work consisted of a general study of English Literature (with Moody and Lovett's manual as a text-book), and a study of Shakespeare with the reading of Twelfth Night.

A class in Rhetoric and English Composition, known as English Composition I, met three times a week throughout the year. Until the fifth of November this class was taught by Dr. French. The class was then divided into two equal sections, one of which (Section A) was taught for the rest of the year by Dr. French, and the other (Section B) by Dr. Ramsay. Theory was imparted by means of text-book (A. S. Hill's Principles of Rhetoric), lectures, and discussions; practice was obtained by the writing of about fifty short papers, of which a few from each set were read and criticised in the class-room, and by the writing of five essays, three of which were read and criticised privately with the writers. Each member of Section A made a careful study of the style of one prose author (in most cases a nineteenth century author), and presented the results of his study in a series of short papers. The members of Section B made a careful study of specimens of standard prose contained in Bronson's English Essays, and wrote a series of short papers presenting the results of their study. The members of both sections read Palgrave's Golden Treasury of Songs and Lyrics and wrote three sets of papers upon topics suggested by their reading.

Dr. Ramsay conducted, once a week, a class in English Composition (English Composition 1A), prescribed for all students in their second year except such as absolve it by attaining a specified rank in English Composition I. Thorndike's Elements of Rhetoric and Composition was used as a text-book. The class reviewed the theory of Rhetoric, and by means of weekly themes, criticised in class and in private conferences, obtained additional practice in writing.

Professor Greene conducted an elective course in Description and Narration (English Composition 2), once a week, throughout the year. During the first term there was weekly practice in the writing of short papers; during the remainder of the year longer papers were written at intervals of two or three weeks. The class-room exercises were devoted to the discussion of theory, to
the reading of numerous illustrations from standard prose, and to the reading and discussion of the written work.

Dr. French gave an elective course, two hours a week through the year, in Exposition and Argument (English Composition 3). During the first half-year the principles of exposition as illustrated by the selections in Lamont’s Specimens of Exposition were studied in class, and each member of the class presented in a series of short papers the results of his careful study of some one author. Various other short papers and one long essay were written during this half-year. The second term was devoted to the theory of argument and the writing and criticism of briefs and essays. Practice in written and oral refutation was afforded during the third term by the presentation by each member of the class of a paper urging some proposed extension of the power of the federal government. The refutation of his arguments orally and in short papers was undertaken by the rest of the class.

A class in English Literature met Professor Greene three times a week throughout the year. This class made a general survey of English Literature from the beginning until about 1625. A detailed study was made of the works of Chaucer, Spenser, and Shakespeare. Of the writings of these poets, a considerable amount was studied critically in the class-room; and more was read by the members of the class in their private reading. In addition to the regular class-room exercises, five readings from the poems of Chaucer and thirteen lectures upon the dramas of Shakespeare were given for the benefit of those members of the class who desired to attend them.

An elective course in English Literature was given by Professor Greene, three hours a week, throughout the year. During the first half-year a careful study was made of the minor poems of Milton; one hour a week was given to the history of the English Bible, and to a presentation of some of the literary features of the Bible. During the second half-year a study was made of Dryden and of the principal writers of the first forty years of the eighteenth century (Swift, Steele, Addison, Defoe, Pope); this was followed by a study of the principal writers from 1798-1832 (Wordsworth, Coleridge, Scott, Keats, Shelley, Byron). In connection with the weekly lectures and discussions the members of the class did a large amount of private reading. Six additional lectures and readings were given for the benefit of those members of the class who desired to attend them.

An elective course in American Literature (English Literature 4) was given, two hours a week throughout the year, by Dr. French. Bronson’s American Literature, Page’s The Chief American Poets, and Weber’s Southern Poets were used as textbooks. In a series of short papers the members of the class presented the results of their reading of assigned selections from various American authors.

A course in reading and public speaking (Forensics 1), one hour a week throughout the year, was given by Dr. French. The class was divided into four sections of about twelve each. Dickens’s Christmas Carol, selections from Mitchell’s School and College Speaker, and original compositions were used as material for reading and speaking.
The class in Forensics met in two divisions once a week throughout the year. The work consisted of prepared and extemporaneous debates, written arguments, a series of lectures on the theory of argumentation, and, during the last few weeks, a careful study of the principles of parliamentary procedure. The course was given by Dr. French.

The "Adams Contest," held in March, afforded additional practice in public speaking and debate. Contestants for the Adams medal from the class of 1909 and debating teams from the classes of 1907 and 1908, chosen by the instructor after competitive tests, were trained in delivery. A university debating team was guided in its preparation for an intercollegiate debate, held at this university in April, with the University of Virginia. In this contest the decision was awarded to Johns Hopkins.

3. Public Lectures on Literature.

Professor Bright gave two public lectures (in McCoy Hall), January 16, 18: (1) "A Speculative Defense of Poetry"; (2) "A Verification of the Defense."

Professor John Bell Henneman, of the University of the South, gave the following lectures (January 21, 23): (1) "The Beginnings of Shakespeare's Art; the Literary Influences of Shakespeare's Early Period"; (2) "The Height of Shakespeare's Art; the Themes of Tragedy."

The fourteenth course of the Percy Turnbull Memorial Lectures on Poetry was given (February 14-26) by Dr. Eugen Kühnemann, Professor of Philosophy in the University of Breslau, Germany. The theme of the eight lectures of the course was "Deutsche Dichtung in der Zeit ihrer grössten Blüte."

JAMES WILSON BRIGHT,
Caroline Donovan Professor of English Literature.

WILLIAM HAND BROWNE,
Professor of English Literature.

HERBERT EVELETH GREENE,
Collegiate Professor of English.

German

The German Seminary, under the direction of Professor Wood, met three times weekly, through the year. During the first half-year, Goethe's Lyrical Poems were studied. The subject was pursued chronologically, the selections being designed to illustrate the change and growth in Goethe's language and style. In the latter part of the course, particular attention was given to the culmination of the German ballad form, and of the sonnet and elegy as compositions, in Goethe's verse. During the second half-year, sixteen aventiuren of the Nibelungenlied were read. The members of the Seminary then reported, in turn, on the present state of Nibelungen manuscript groupings, and on the recent studies of the Saga by Wilmanns and Kettner. The efforts of the Seminary, as a whole, were, however, mainly directed towards the determination of priority and originality by
a comparison of the readings of the main groups, and the work of Braune (P.B.B. xxx) was examined in considerable detail.

The Germanic Society, which is composed of the director of the Seminary and the instructors and graduate students in German, met fortnightly through the year in an afternoon session. Besides reviews and reports, papers on the following subjects were presented, which gave from time to time preliminary results of studies still in progress. Luther, Tindale and the Authorized Version of the Gospel of St. Matthew compared; the German Epigrammatists of the period prior to 1771; Edward Young in Germany; "Dichtung und Wahrheit" in Heine's Hrar­reise; contemporary criticism of Friedrich Nietzsche.

Professor Wood gave, in addition, the following graduate courses:

1. Gothic and the Elements of Comparative German Grammar. Twice weekly, through the year. Braune's Gotische Gram­matik was studied, after which parts of the Gospels of Matthew, Mark and Luke, and a part of the Second Epistle to the Corin­ thians were interpreted. Wilmanns' Deutsche Grammatik, Bd. I., was read in part, and was accompanied by practical exer­cises designed to illustrate the principles of sound-change and word-formation for the several Teutonic languages, with special reference to German.

2. The Beginnings of Modern German Classicism. Twice weekly, first half-year. After a review of the history of the drama in the first half of the eighteenth century, the study was specialized towards determining the development of the mon­ologue in the German drama. This was followed by a comparison of the prologue and epilogue in the English drama with the corresponding parts of the German drama. The substitution, in German, of the "Theaterrede" for the English Induction-prologue was also considered in detail.

3. Germanic Mythology. Twice weekly, second half-year. The monograph of Mogk, in Paul's Grundriss II, was made the basis of the study. Much use of Müller's Geschichte der griech­ischen Mythologie was made, in order, by inference, to help deter­mine the relative date and importance of the liturgical element in German Mythology. Other representative works, as those of Mannhardt and Chanteple de la Soussaye, were studied with particular reference to the origin of religious practices in Ger­many.

In the undergraduate course, German III, Professor Wood con­ducted a class, twice weekly, through the year, in Contemporary German Literature. Nearly equal portions of recent drama and contemporary narrative prose were read. The authors studied were, Gottfried Keller, C. F. Meyer, von Lillencron, Gerhart Hauptmann, and Ludwig Fulda. In German Course I Professor Wood conducted weekly exercises in prose composition.

Associate Professor Vos gave an Introductory Course in Middle High German, twice weekly, during the first half-year. The phonology, inflection, and syntax were studied with the aid of Paul's Mittelhochdeutsche Grammatik, and selections were read from Bachmann's Mittelhochdeutsches Lesebuch.
German

German

He also gave a course, twice weekly during the first half-year, in Gottfried von Strassburg's Tristan und Iseulte. The larger part of this epic was read and discussed in class. The various questions centering around the saga, the poem and its French original, were also considered in the light of the most recent publications.

During the second half-year he gave a course, twice weekly, in Modern Dutch. The students were furnished with an outline of Dutch Grammar, in mimeographed form, prepared by the instructor. Selections were read from Hildebrand (Beets), Camera Obscura.

He also gave an Introductory Course, weekly during the second half-year in Old High German. Braune's Abriss der althochdeutschen Grammatik and Althochdeutsche Grammatik served as text-books.

The following undergraduate courses were conducted by Associate Professor Vos:

German 1, Prose Readings: Baumbach, Sommermärchen; Seldel, Leberecht Hühnchen; Fulda, Unter vier Augen; Keller, Romeo und Julia auf dem Dorfe; Saar, Die Steinklopfer. Von Ebner-Eschenbach's Die Freiherrn von Gomperlein and Krambambuli were assigned as private reading.

German 2, Classics: Schiller, Maria Stuart; Goethe, Hermann und Dorothea; Goethe, Dichtung und Wahrheit (selections).

German 3, Ballads and Lyrics. The poems read were selected from Buchheim's Balladen und Romanzen and Deutsche Lyrik.

Dr. Thomas S. Baker, Professor in the Jacob Tome Institute, gave a course of lectures, weekly, through the year, on the History of the German Novel in the seventeenth century. French, Spanish and English influences on the German novel were considered. Grimmelshausen's Simplicissimus was read in part.

Dr. William Kurrelmeyer gave undergraduate and special courses, as follows:

German Elements. Four hours weekly. Vos, Essentials of German; Gerstäcker, Grimmelshausen; von Wildenbruch, Das edle Blut; Keller, Kleider machen Leute; Wilhelm, Einer muss heilen; Benedix, Eigensinn; Hatfield, German Lyrics and Ballads; E. S. Buchheim, Elementary German Prose Composition.

Scientific German. Two hours weekly. Lassahr-Cohn, Die Chemie im täglichen Leben; Walther, Allgemeine Meereskunde; von Helmholtz, Populäre Vorträge.

Historical Readings. Two hours weekly. Schiller, Geschichte des dreissigjährigen Krieges (Book III); W. Paszkowski, Lesebuch zur Einführung in die Kenntnis Deutschlands und seines geistigen Lebens; Freitag, Doktor Luther.

Mr. Julius Hofmann conducted, in German Course II, weekly exercises in prose composition. He also met a class of graduate students, twice weekly, for oral exercises in German. During the first half-year, the German vowels and consonants were studied. The next step was the acquisition of a vocabulary comprising matters relating to everyday life. The formation of sim-
ple sentences was practiced, after which conditional clauses and sentences were attempted. Several lyrical poems and ballads were memorized by the class, and served thereafter as the basis for discussion.

HENRY WOOD,
Professor of German.

Romance Languages

I. Graduate Courses.

Professor Elliott conducted advanced courses as follows:

Romance Seminary. Two hours fortnightly.

The work centred on the Fables of Marie de France, the object of the course being to acquire a working knowledge of the fable literature of Antiquity and of the Middle Ages; to become acquainted with the characteristics of the Norman and Anglo-Norman dialects in which some of the more important manuscripts are written; to present the fundamental principles of text-criticism and text-constitution. A clear view of the morphology and phonetics of the language was obtained as contrasted with those of the Isle-de-France; likewise of the Old-French construction as compared with that of the Modern French.

In addition to this, the discovery of a new manuscript of Marie de France was announced by Dr. Keidel, and under his direction its relation to the manuscripts previously known was studied, while special investigations were also made in the Romance derivatives of the Popular Latin Esopus. On the literary side the work centred on Gualterus Anglicus and the numerous derivatives of his fable collection in the Middle Ages, especially those in Italian and Portuguese. The question of whether La Fontaine knew the fables of Marie de France was also investigated, and some of the mediaeval versions of the "Crow and Peacock's Feathers" were studied comparatively.


The object here is to give the student an introduction to the phonetics and morphology of Folk and Low Latin as a common basis for a scientific study of the Romance Idioms. This course covers two years and, during the past year, the second part of the course, the morphology, has been the subject under consideration, with a detailed and historical examination of the phenomena, particularly the characteristic material that belongs to France, Italy and Spain.

Romance Club. Weekly.

The object of this organization, to which all members of the Romance department belong, is to foster a common interest in everything that concerns the study of the Romance Idioms. Reviews of important journal articles, papers on original investigations, discussions of literary and scientific subjects, reports of
correspondence of a professional nature, represent the chief proceedings of the club.

French Dialects. Weekly.

The dialects especially considered were those of the Lorraine, Burgundy and Champagne groups. The method of work was, to a great extent, practical, and had in view a sufficient acquaintance with dialect forms to enable the student to discriminate Old French texts belonging to these different idioms. To this end the leading characteristics of the old and modern dialects were presented in a few lectures; then, through the use of early and later texts, the student was required to recognize and name the dialect features as they occur in the respective texts.

Lectures on Dante. Weekly.

The object of this course was to give the student a survey of the Dante science of to-day. In a few introductory lectures he was made acquainted with the leading philosophical and literary tendencies of Dante's time, the Inferno and Purgatorio doctrines before the author's epoch. The Inferno and Purgatorio were analyzed and presented in detail, both with reference to the previously existing ideas of punishment and recompense and to those peculiar to Dante.

Lais of Marie de France. Two hours fortnightly.

This course was intended as a general introduction to the more advanced work of the Romance Seminary. Attention was concentrated on the Bisclavret, about one-third of which was exhaustively studied in reference to Old-French syntax as compared with that of the Modern French. Dr. Keidel also reported on two transformation stories of a man into a mule and a wolf, respectively, to which has been given a Southern negro setting, but which appear to be based on European traditions.

Professor F. M. Warren conducted the following courses in Mediaeval French Literature during the month of December:

One series of twenty lectures discussed allegorical poetry in France during the Middle Ages. Its origins were shown to be both in Classical literature and the figurative language of Scripture. These two sources were followed through the Latin writers of post-Classical times down to the Latin and French allegory in the twelfth century. Especial attention was given to the sources of the Roman de la Rose, both erotic and didactic, and to the religious allegory which culminated in the fourteenth century in the works of Guillaume de Degulleville. A course of six lectures traced the evolution of the liturgical drama, from its beginnings in the Church services to the great mysteries of the fifteenth century. The origin of comedy, on the other hand, was traced back to Roman tradition. Its literary development, fostered by the growth of the liturgical drama, with which it was often combined in representation, was studied particularly in respect to its farces and monologues.
Professor Marden conducted the following courses:

Spanish Seminary. *Two consecutive hours weekly.*

The work of the seminary centred on the poems of the *mester de clerecia*, especially the older representatives, such as the work of Berceo, the *Libro de Alexandre* and the *Libre de Apolónio*. The students reported on subjects connected with both the literary and linguistic side of these poems and the study of forced caesura, in particular, led to interesting and valuable contributions by the several members of the seminary.

The Early Spanish Epic. *Weekly.*

This course consisted in a series of lectures on the early or national epic, supplemented by collateral reading on the part of the students. Extensive material was drawn from the early ballad literature and prose chronicles in so far as these contained evidences and remains of earlier epic poems. In addition to the lost cantares, the cycles or groups of poems treated in detail were those relating to King Roderick, Bernardo del Carpio, the Infantes de Lara, Fernán González, and the Cid.

Readings in Old Spanish Literature. *Weekly.*

The aim of this course was to give the students an accurate reading knowledge of Old Spanish. The class began by studying selected passages in Keller's *Altspanisches Lesebuch*, after which the following texts were read in full: *Poema de Fernán González*, *Misterio de los Reyes Magos*, and *Razon de Amor*.

Spanish Historical Grammar. *Weekly.*

Baist's article in Gröber's *Grundriss* and Menéndez Pidal's *Gramática Histórica* were taken as the basis for a series of lectures on Spanish phonology and morphology. Every fourth meeting was a quiz, for which the students prepared selected passages from the *Poema del Cid*, and made practical application of the laws deduced in the lectures.

Associate Professor Armstrong conducted the following courses:

French Phonology and Morphology. *Three hours weekly.*

Old-French sounds and inflections were studied with reference to their historical connection with Folk-Latin and with Modern French. A portion of the time was employed in the application of materials and methods embodied in the lectures to the text of the *Vie de St. Alexis*.

French Syntax. *Two hours weekly.*

The lectures in this course were devoted to the French pronoun, considered from the historical and comparative standpoint.


A brief view of general principles and of existing phonetic schools was followed by a description of the organs of speech and a detailed examination of the mode of formation of French sounds.

It was the aim of this course to furnish an introduction to the subject and to equip students for reading Old-French texts with some facility and accuracy. Aucassin et Nicolette, Chrétien de Troyes' Erec et Enide, and selections from the Chanson de Roland were read.

Readings in Old-French Literature. Class A. Weekly.

The time was given to rather rapid reading, with attention to language, style, and text criticism. The class read the Lais of Marie de France and Chardry's Josaphaz, Vie des Set Dormans, and Petit Piet.

Professor Ogden conducted the following courses:

Romance Seminary: Literature. Two hours fortnightly.

The subject of the work chosen for special study was the philosophic school of poets of the early part of the nineteenth century. The thought of the various authors was studied by the seminary as found in the poems of each and this matter was presented before the members in papers which were criticized at the time. The poets treated were A. de Vigny, V. Hugo, L. de Lisle, Sully Prudhomme, in the poetic expression of their belief which constitutes the background of their production.


Beginning with the times of the Pitélade, and the Renaissance in France, these lectures traced the course of French poetry to the present day. The subject was treated as a connected whole, and each genre was followed in its rise, expansion and variation. The lyric regeneration was noted, which started in the eighteenth century to culminate in the Romantic School. The course closed with a discussion of Symbolism and the value of the vers libre as a poetic vehicle.


This course was the continuation of the course offered the year preceding on the seventeenth century. Taking up the condition of the theatre at the close of the work of Racine, these lectures presented the gradual development of the eighteenth century drama. Noting the division of the material used by Molière, the course presented the work of Destouches and Dancourt and the gradual transition to the Comédie larmoyante was discussed. The modern tone of Beaumarchais was contrasted with the earlier forms of comedy and the theories of La Motte and Mercier were presented; this was preparatory to the nineteenth century drama.

Old Provençal Readings. Weekly.

The literature of the golden age of Provençal culture was studied and interpreted in its various verse forms. The reworking of these formal lyrics in English expression constituted a valuable training, and furnished admirable exercise in accuracy and appreciation of the poet's thought.

The text-book used was Appel's Provenzalische Chrestomathie.
Dr. Keidel conducted the following courses:

**Romance Methodology. Weekly.**

The general principles of cataloguing, proof-reading, original investigations, library research, and bibliography were explained and fully illustrated by numerous cases of personal experience, while special stress was laid on the methods to be employed in the preparation of a dissertation and the writing of book-reviews. A short account was likewise given of the various groups of Romance scholars in Europe and America, and brief biographical sketches of the more prominent of these were added, together with an appreciation of their most important work as investigators and teachers.

**Romance Palaeography. Weekly.**

By way of introduction a short account of the leading principles involved in the study of incunabula was given, with numerous illustrations from the works themselves as presented both in European and American libraries. This was followed by a description of the various schools of writing developed on Romance territory during the Middle Ages, together with practical exercises in the deciphering of facsimiles of Old-French manuscripts. The object of this course was twofold: to acquaint students with the general literary conditions of a formal nature prevailing during the Middle Ages; and to fit them for the practical work of investigating incunabula and of copying mediaeval manuscripts.

**French Versification. Weekly.**

The fundamental principles of the versification of epic, didactic, and lyric poetry in the Old-French period were explained, with abundant illustration from some of the more important literary monuments, especially the works of Marie de France. Particular attention was devoted to the Alexandrine in the Old-French period as being the most important of the metres employed by French poets of all times. It was the special aim of this course to consider the needs of beginners in the subject.

**Mediaeval Sources. Weekly.**

The distinctions existing between the fields of epigraphy, diplomatics and palaeography were carefully explained, and the leading principles involved in the study of the last mentioned branch of the general subject were given at length. Attention was also paid to the conditions prevailing in mediaeval libraries and the customs of the copyists, followed by an account of the celebrated printing houses of the Italian and French Renaissance periods.

Dr. Shaw conducted the following courses:

**Contemporary Italian Novelists. Weekly.**

Beginning with an introductory discussion of the origins of Italian prose romances, and of the influence of Manzoni and the Romantic movement, the course proceeded to deal with those novelists who have received most of that influence, especially
Romance Languages

Fogazzaro. Verga was treated as the chief representative of naturalism, and the psychological aesthetic romance of D'Annunzio was treated last.

Early Italian Prose. Weekly.

A discussion of the earliest monuments of Italian prose was followed by a more detailed treatment of works of literature of the thirteenth century taken as types of the different kinds of composition, letters, accounts, etc.; encyclopaedic compilations; the moralizing literature and the chronicles.

Italian Readings. Weekly.

Readings from thirteenth century prose parallel to the course on early Italian prose. The crestonthologies of Monaci and of D'Ancona and Bacci were used, and the Novellino edited by Carbone.

Italian Conversation. Weekly, for half the year.

Conversation preceded by the reading aloud of a canto of the Inferno, which was used as the subject.

II. Undergraduate Courses.

Courses in French were given as follows:

French Elements. Four hours weekly. Mr. Austin.

Fraser and Squair. French Grammar, Part I; Verne, Vingt mille Lieues sous les Mers; Labiche and Martin, Le Voyage de M. Perrichon; About, La Mère de la Marquise.

French 1. Four hours weekly. Associate Professor Ogden and Dr. Brush.

Grammar and Composition: Fraser and Squair, French Grammar, Part II and Exercises, Exercises based on La Pipe de Jean Bart. Translation: Dumas, Les Trois Mousquetaires; Auger and Foussier, Un beau Mariage; Coppée, On rend l'Argent; Theuriet, L'Abbé Daniel; Daudet, Contes; Pailleron, Le Monde où l'on s'ennuie; Fortier, Histoire de France; Lamartine, Scènes de la Révolution française; Corneille, Le Cid; Molière, Les Précieuses ridicules, V Avarè; Hugo, Hernani. Outlines of French literature. Dictation.

French 2. Three hours weekly. Dr. Brush.

Composition: Grandgent. Prose Composition; Exercises based on Kron and Rippmann. French Daily Life. Reading: Hugo, Quatrevingt-treize, Ruy Blas; Musset, Fantasio, On ne badine pas avec l'Amour, Il faut qu'une Porte soit ouverte ou fermée; Balzac, Le Curé de Tours; Bowen's Modern French Lyrics; Dumas fils, L'Ami des Femmes; Daudet, Tartarin de Tarascon; Lynch, French Life in Town and Country; Taine, L'Ancien Régime; Corneille, Horace; Racine, Athalie; Molière, Les Femmes savantes, Tartuffé; LaFontaine, Fifty Fables. Lectures on French literature and on French life. Dictation.
French 3. Three hours weekly. Dr. Brush.

Reading: Le Sage, Gil Blas; Hugo, Les Misérables; Sand, Nanon; Balzac, La dernière incarnation de Vautrin; Flaubert, Salammbo; Bazin, Les Oberlé; Bourget, Monique, Reconnaissance; Marivaux, Le Jeu de l'Amour et du Hasard, Les Legs, Les fausses Confidences; Nivelle de la Chaussée, Le Préjugé à la Mode; Diderot, Le Fils naturel; Beaumarchais, Le Barbier de Séville, Le Mariage de Figaro. Composition based on Poe's Murders in the Rue Morgue and on Hope's Dolly Dialogues.

Professor Marden conducted the following courses:

Spanish 1. Three hours weekly.

After a few lessons in Hill and Ford, Spanish Grammar, reading was begun in Matzke, Spanish Readings. The class then read Alarcón, El Capitán Veneno, and Pérez Galdós Doña Perfecta. Exercises in grammar and prose composition were continued throughout the year.

Spanish 2. Three hours weekly.

The class read Larra, Partir à tiempo; Tirso de Molina, Don Gil de las Caídas Verdes; Alarcón, La Verdad Sospechosa; Calderón, La Vida es Sueño, and about one hundred pages of Cervantes, Don Quijote. One hour a week for the first half-year was devoted to prose composition, with Ramsey’s Spanish Grammar as a text-book; the corresponding hour for the second half-year was devoted to the History of Spanish Literature, with Butler Clarke’s Handbook as a basis.

Dr. Shaw conducted the following courses:

Italian 1. Three hours weekly.

A course for beginners. Study of the grammar and exercises in pronunciation, followed by translation of texts with the study of the grammar continued, and, during the last part of the year, prose composition. The following textbooks were used: Grandgent, Italian Grammar; Barrill, Una Notte Bizzarra; De Amicis, La Vita Militare.

Italian 2. Three hours weekly.

A more advanced course following Italian 1. Reading of classic texts of the literature, going from the modern to the ancient, with revision of the grammar, advanced prose compositions once a week, lectures and recitations on the history of the literature. The following text-books were used: Grandgent, Italian Grammar; Garnett, History of Italian Literature; Manzoni, I Promessi Sposi; Settembrini, Ricordanze della Mia Vita; Leopardi, Canti; Dante, Inferno.
History

The publication of the Studies in Historical and Political Science continued during the year and the twenty-fourth series was brought to completion. The titles of the papers included in the volume are as follows: Spanish-American Diplomatic Relations preceding the War of 1898, by H. E. Flack; The Finances of American Trade Unions, by A. M. Sakolski; Early Diplomatic Relations of the United States with Russia, by J. C. Hildt; State Rights and Political Parties in North Carolina, 1776-1861, by H. M. Wagstaff; National Labor Federations in the United States, by W. Kirk; Maryland during the English Civil Wars, Part I, by B. C. Steiner.

The twenty-fifth series is in progress and the following numbers have gone to press: Internal Taxation in the Philippines, by J. S. Hord; The Monroe Mission to France, 1794-1796, by B. W. Bond, Jr.; Maryland during the English Civil Wars, Part II, by B. C. Steiner; The State in Constitutional and International Law, by R. T. Crane.

The Historical and Political Science Association completed its thirtieth year. Meetings have been held monthly in the Historical Library for the discussion of original papers and current publications in history, political science and political economy. The full proceedings are published in the University Circular for April, 1907. The principal papers of the year were as follows: Present Conditions of Historical Science, by J. M. Vincent; The New Political Science Review, by W. W. Willoughby; Economic Conditions in Haiti, St. Thomas, Antigua and Guadeloupe, by J. H. Hollander; Work of the Historical Bureau of the Carnegie Institution, by J. F. Jameson; Studies in the Economic History of Tennessee, by St. George L. Sioussat; American Sectionalism, with special reference to its bearing on party history and its economic influence, by F. J. Turner.

Dr. James Schouler gave the second course of a series of lectures on Ideals of the American Republic. The topics of this course were as follows: Government by Consent; Written Constitutions; A Union of States; The Discipline of Liberty.

The Albert Shaw Lectures on Diplomatic History were given by Dr. Elbert J. Benton of Western Reserve University. The subject of the course was the International Law and Diplomacy of the Spanish-American War. Two volumes of these lectures go to press during the summer, namely, The Diplomatic Relations of the United States under Tyler and Polk, by Dr. Jesse S. Reeves, Shaw Lecturer, 1906; and the lectures of Dr. Benton, just mentioned.

Professor J. M. Vincent conducted the following courses:

1. Seminary of European History, two hours in alternate weeks, through the year. The topics related to the French Revolution and its echoes in England. The papers prepared by the students were in part criticisms of the materials relating to the subjects in hand and in part studies of public policy and political
opinion. Mr. D. S. Freeman made an elaborate study of the official documents emanating from the revolutionary governments. Mr. S. L. Ware gave a critical estimate of the private memoirs of contemporaries. Mr. P. S. Filippin gave a detailed account of the public policy of Great Britain during the period of the French Revolution. This was carefully fortified by citations from the documents and from memoirs of statesmen. He also made a documentary study of the action of Great Britain at the Congress of Vienna in regard to the affairs of Poland. Mr. W. T. Laprade undertook a study of English public opinion of the French Revolution between 1789 and 1795. This topic has never been adequately investigated and his progress promises to yield permanent results.

2. The French Revolution, two hours weekly, first half-year. The lectures endeavored to point out the main current of the great movement and to indicate the most important lines of inquiry.

3. The Nineteenth Century, two hours weekly, second half-year. This course was in continuation of the preceding and followed the expansion of new political ideas to 1848, in order to lay the foundation for present European conditions.

Professor Vincent also gave six lectures to undergraduates on the history of mediaeval architecture.

Associate Professor J. C. Ballagh has had special direction of the dissertations and class work of advanced students in American history. He conducted the following courses:

American History, three hours class work weekly and seminar, throughout the year. The seminar work and lectures each year cover distinct periods or topics, and are so arranged that the courses given in successive years continue or supplement those of the preceding year. For the past year they were:

1. Seminar of American History, two hours fortnightly, throughout the year. The subject studied was a phase of the social history of the United States closely connected with the history of slavery and with the lectures upon that topic, i.e., the legal status of the ante-bellum free negro in certain Southern States. Localities were selected in which it seemed possible to obtain full sources at first hand for the brief period studied. The objects kept in view were (a) practical training in correct methods of search for and utilization of the necessary historical sources; (b) the attainment of substantial results therefrom worthy of publication ultimately as contributions to history in a profitable, unworked field. A cooperative research was made by the instructor and students for the manuscript and printed sources, and the methods as well as the results of the researches were the subject of frequent and mutual criticism privately as well as at the seminar meetings. The papers, embodying results and a bibliography of their sources, abstracts of which have been prepared for publication in the J. H. U. Circulars, were as follows: The Legal Status of the Free Negro in Georgia, 1840-1861, by D. S. Freeman; The Legal Status of the Free Negro in Virginia, 1830-1861, by P. S. Filippin; The Legal Status of the
History

Free Negro in the District of Columbia prior to the Civil War, by W. T. Laprade; The Legal Status of the Free Negro in North Carolina, 1830-1861, by S. L. Ware.

2. History of the United States, 1789-1830, two hours weekly, throughout the year. The political and constitutional history of the period was considered with especial reference to the growth, principles, and influence of political parties and to the methods and results of attempted expansion or limitation of the Federal Constitution. Emphasis was laid on the less known facts in the era of federalism. A syllabus of the course with references to the sources and authorities upon which it was based was required of each student.

3. History of American Slavery, one hour weekly, throughout the year. The institutional development of servitude and slavery and their character and influence in America were studied in comparison with forms and modifications of slavery as they existed in ancient, mediaeval and modern Europe. The history of the slave-trade and of its attempted suppression, and the growth and results of antislavery sentiment in America were traced.

In connection with this course Professor George Petrie of the Alabama Polytechnic Institute gave two lectures and conferences in March upon the results of his researches into the history of slavery in Alabama.

Mr. D. S. Freeman continued with direction his investigation of the history of State Rights in Virginia and presented a paper embodying the results of his work.

Dr. Bernard C. Steiner, Associate in History, has conducted two courses for undergraduates:

1. English Constitutional History, three hours weekly, through the year. The course extended from the period of the Anglo-Saxons to the nineteenth century, with special emphasis upon the development of public laws and political institutions.

2. American Constitutional History, three hours weekly, through the year. This covered also the whole development of American institutions. The work was conducted in both courses by means of text-books, lectures and written reports on special topics. The combination of the two courses gives opportunity to show the intimate connection between English and American constitutional history, and to illustrate the general principles of political science. The new plan of undergraduate study permits more time for these two subjects and the resulting improvement in the work is very gratifying.

Dr. James M. Wright, Assistant in History, conducted two courses for undergraduates:

1. Classical History, three hours weekly, through the year. The constitutional history of Greece and Rome was followed in parallel lines, giving opportunity to show their mutual relations. The translated texts of Herodotus, Thucydides, Polybius and others were used in connection with modern authorities.
2. *Medieval and Modern History*, three hours weekly, through the year. This course follows the development of European nations from the fall of the Roman Empire to the close of the French Revolution, emphasizing the rise and fall of feudalism and the great moral and intellectual movements of the period.

The library force in the historical department, in addition to the regular routine, has accomplished two matters of great use to students of history. Miss Reese checked off in Gross's "Bibliography of English History previous to 1845" the literature of that subject in the Peabody Library. It appears that nearly everything of value to serious students of that long period, besides much more belonging to later times, may be found in Baltimore.

Miss Daran has rendered the publications of the United States Government much more serviceable by giving serial numbers to the earlier volumes. The system was begun by the government only in recent years, so that it was necessary to identify and number more than 3,000 volumes of this very complex collection.

**J. M. Vincent,**
*Professor of European History.*

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**Political Economy**

The courses in Political Economy were directed by Professor Hollander, who met students daily, in seminary organization, for formal instruction and for co-operative research. The activity of the Economic Seminary in the investigation of the history, structure, and activities of labor organizations in the United States was supplemented by courses of lectures on certain phases of the history and theory of economic science, and on the nature and influence of particular economic institutions. Dr. George E. Barnett, Associate Professor of Political Economy, assisted in the conduct of the work.

Professor Hollander conducted the following courses:

1. *Economic Seminary,* weekly, alternating a two-hour evening with a one-hour morning session. During the current academic year, the Economic Seminary has continued its investigation into the history, activities, and influence of labor organizations in the United States. Its membership has been limited to the advanced students preparing for a scientific career in economic study, and its primary design has been the development of sound method in economic research. The material resources necessary for the inquiry have been supplied by the continued generosity of the donor whose original gift made its inception possible. The papers and reports presented to the Seminary were as follows: "The Federation of Local Unions," by T. W. Glocker; "The Strike of the Baltimore Butchers," by E. H. Morse; "Child Labor Conditions in the Maryland Canneries," by S. Blum; "Sick Benefits in American Trade Unions," by J. B. Kennedy; "Trade Unionism in Baltimore, 1808-09," by T. W. Glocker; "Increase in the Rate of
the Bank of England," by E. T. Cheetham; "Jurisdictional Dis-
putes in American Trade Unions," by S. Blum; "The Debt of San
Domingo," by Professor J. H. Hollander; "Industrialization as a
Cause of Jurisdictional Disputes," by S. Blum; "Apprenticeship
in the Iron Molders' Union," by Dr. J. M. Motley; "A Comparison
of Industrial Conditions in England and America," by Douglas
Knoop, A. M.: "History of the Trade Union Label," by E. R. Sped-
den; "The Minimum Wage in the Baltimore Building Trades," by
D. A. McCabe; "Problems of Rural Life in Ireland and America,
by Sir Horace Plunkett, Vice-President of the Department of
Technical Instruction for Ireland, discussed by Mr. George
Fletcher, Assistant Secretary of Technical Instruction for Ireland;
"Economic Significance of Death and Disability Benefits in Amer-
ican Trade Unions," by J. B. Kennedy; "The Control of Strikes in
American Trade Unions," by E. H. Morse; "Finances of the Inter-
national Typographical Union," by Dr. George E. Barnett; "Rise
and Territorial Growth of National and International Trade
Unions," by T. W. Glocker; "Death and Disability Benefits in
American Trade Unions," by J. B. Kennedy; "The Cigar Makers'
Label," by E. R. Spedden; "Railroad Rates and Capitalization,
by Logan G. McPherson; "Wage Scales in the Printing Trades,
by D. A. McCabe; "American Socialism," by William H. Mallock,
Esq., discussed by Hon. Charles P. Neill, U. S. Commissioner of
Labor, and the Rev. Dr. William J. Kerby of the Catholic Uni-
versity; "The Minimum Wage in Industrial Unions," by D. A.
McCabe; "Legal Aspects of the Trade Union Label," by E. R.
Spedden; "The Convention Between the United States and the
Dominican Republic," by Professor Hollander; "Legal Aspects of
American Trade Union Benefits," by J. B. Kennedy; "Shop Rules
in the Typographical Union," by Dr. George E. Barnett; "Trade
Unionism in Sweden," by Gösta Bagge; "The Label in American
Trade Unions," by E. R. Spedden; "Tenure and Promotion under
the Rules of the Typographical Union," by Dr. George E. Barnett;
"Railway Rates and Prices," by Logan G. McPherson; "Compet-
tency and the Minimum Wage," by D. A. McCabe; "The Iron
Molding Machine," by E. T. Cheetham. A fuller account of the
proceedings of the Seminary, with abstracts of the more im-
portant papers there presented, was published in the Johns Hopkins
University Circular, April, 1907.

Appreciable progress has also been made by members of the
Seminary in the study of specific aspects of the several questions
assigned for investigation. During the summer, field work was
carried on in various carefully selected localities, and the data
thus collected have since been supplemented and corrected by
documentary study and personal interview.

Three members of the Seminary received the Doctor of Phil-
osophy degree in June, 1907. Their dissertations will be pub-
lished in the next series of the Johns Hopkins University Studies
in Historical and Political Science, or elsewhere, as follows:
Glacker; "Beneficiary Features of American Trade Unions," by
James B. Kennedy; "Jurisdictional Disputes in American Trade
Unions," by Solomon Blum.
2. The Principles of Political Economy, two hours weekly through the year. Attention was paid to the proper method of economic inquiry, after which the fundamental theories of the science were subjected to critical examination. Representative texts were assigned for reading and study.

3. Municipal Finance, two hours weekly, through the year. The historical development of American local finances was studied, after which attention was paid to the present fiscal problems of the American city.

During the year Professor Hollander continued, with the approval of the University authorities, to act as Special Agent of the United States in regard to affairs in San Domingo. At the instance of the Department of State he served as financial adviser of the Dominican Republic in the negotiations carried on during the summer for the adjustment of the Dominican debt. He was also designated chairman of the Advisory Committee on Taxation and Revenues, constituted by Mayor Mahool for the purpose of studying the financial resources and requirements of Baltimore City, with a view to suggesting means of improvements.

Dr. George E. Barnett, Associate Professor of Political Economy, lectured during the year on Industrial Corporations. During the first half-year, a historical survey of the various forms of enterprise was made. In the second half-year, attention was directed to an analysis of the industrial corporation. The course concluded with a critical examination of the entrepreneur function in its relation to economic organization.

Mr. John M. Glenn, A. M., Director of the Russell Sage Foundation, gave a course of ten lectures on Problems of Relief. The lectures dealt with causes and effects of poverty and crime, methods of prevention and treatment, and the responsibilities of the community in regard to them.

Mr. Clayton C. Hall, LL. B., A. M., of Baltimore, gave a course of lectures on Insurance in its economic and practical aspects. He explained the nature of modern systems of insurance, and discussed the tendency and details of recent insurance legislation in the United States.

Mr. Logan G. McPherson, of Washington, gave a course of lectures on Railway Transportation. Attention was paid to the railway as an economic institution, with particular reference to pending legislative issues.

In co-operation with the department of history and political science, opportunity was afforded in the Historical and Political Science Association for the presentation and discussion of original papers in economic science by instructors, advanced students, and invited speakers, and for the review of current publications of importance in these several fields.

A reading class was organized and successfully conducted by the more advanced students of the department for the co-operative study of economic texts and for the critical discussion of current economic literature.

Two numbers of the second series of reprinted Economic Tracts have been issued during the year under the editorship of Professor Hollander, viz., North's Discourses upon Trade (1651), and Fortrey's England's Interest and Improvement (1663). A third
series of Tracts is in preparation and detailed announcement will be made at an early date.

Further progress was made during the past year in the collection of trade-union documents. The Seminary is now in receipt of all important trade-union journals, proceedings of conventions, constitutions, and similar publications. Through purchase and gift the collection has been augmented by the addition of similar printed material of earlier years, and notably by the addition of complete files of the publications of certain older unions, hitherto unrepresented. These additions have made accessible to students of trade unionism in the United States a larger amount of documentary material than is to be found in any other place in the country. A new edition of the "Bibliography of American Trade-Union Publications" has been issued during the year, with the aid of the Carnegie Institution of Washington.

The Seminary collection of English economic texts has been strengthened by means of a further gift of money from Mr. A. G. Hutzler. The work of the department has also been aided by generous gifts from Mr. William H. Buckler.

Professor Hollander and Dr. Barnett conducted the following undergraduate courses:

*Political Economy I*, three hours weekly, through the year. This course was divided into two half-year sections. In the first half-year, the industrial development of England and the United States was studied. In the second half-year, systematic instruction was given in the elementary principles of economic science.

*Political Economy II*, three hours weekly, through the year. In the first half-year, a study was made of the development of economic theories. In the second half-year, attention was given to the principles of finance.

JACOB H. HOLLANDER,
*Professor of Political Economy.*

Political Science

The work in Political Science has been conducted by Professor Willoughby, and has had for its primary aim the preparation of advanced students for professional and original work in the fields of Constitutional Law, International Law and Diplomacy, and Political Theory. The instruction given has also sought to supply a training for those students who may desire to enter the higher branches of the public service, as well as to furnish a philosophical equipment to those who expect later to pursue the study and practice of the law.

In addition to his duties as one of the editors of the Studies in Historical and Political Science, and as one of the directors of the Historical and Political Science Association, Dr. Willoughby has served as Managing-Editor of the *American Political Science Review*, a position to which he was appointed last fall by the American Political Science Association.

Seminary: A weekly Seminary has been held, devoted to the discussion of current and unsettled questions in constitutional

The following lecture courses were given:

1. *Advanced United States Constitutional Law.*—by Professor Willoughby, two hours weekly, through the year. These lectures were devoted to a discussion of the more perplexing and unsettled points in our constitutional jurisprudence and presupposed a general knowledge of United States political history and the elements of United States constitutional law.

2. *History of the Theories of Church and State.*—by Professor Willoughby, one hour weekly, through the year. In this course was traced the gradual evolution of the idea of the State as a purely secular institution. The medieval doctrines of Church and State and of Papacy and Empire were examined and attention given to the development of the theory of religious liberty and to the present political status of the Church in Europe and America.

3. *The Theory and Practice of Politics.*—by Mr. Henry Jones Ford, one hour weekly, through the year. The subject of this course was the application of general principles to the interpretation of practical politics. The questions considered were raised by instances drawn from the events of the times, and the bearing of political theory was then examined. Several lectures dealt with the problem of social origins, the natural history of the State, and the laws of political development. In conclusion, constitutional tendencies in federal, state, and municipal government were considered, with special regard to the working of institutions in actual practice.

Undergraduate Instruction in Political Science was given in connection with the undergraduate courses in History and Economics.

W. W. WILLOUGHBY,
Professor of Political Science.
Philosophy and Psychology

GRADUATE COURSES

The instruction in this department has proceeded in accordance with the published announcements. The department had a relatively large increase in its enrolment.

Apart from the regular courses given by the officers of the department, the following details may be made matter of record here:

Professor John Dewey, of Columbia University, delivered a course of ten lectures on "The Development of Greek Philosophy."

Two lectures on "Mind and Medicine" were given before the department by Professor Pierre Janet, of the Collège de France, Paris.

The department cooperated with the Department of Education of the City of Baltimore in arranging a series of lectures on educational subjects. Two of these lectures, given respectively by the National Commissioner of Education, Dr. E. E. Brown, and the Superintendent of Education of Los Angeles, California, Professor E. C. Moore, were held in the University, as were also certain lectures in the same series by Professor Baldwin.

As to the Individual Instructors, Dean Griffin gave courses in the History of Philosophy and in Ethics. Professor Baldwin, besides his courses here, gave lectures extending over six weeks in the summer school of the University of Chicago and another series at Grove City College, Pennsylvania, and Professor Stratton lectured before various bodies in Baltimore, Washington, etc.

As regards publications the department has shown its customary activity. Professor Baldwin's work on "Genetic Logic," volume I, appeared in July, and is being translated into both French and German, and volume II went to the printers. He also edited the Psychological Review. Professor Stratton published researches in that Review and elsewhere. (See note added by him below on the work of the Psychological Laboratory.)

The position of Instructor in Experimental Psychology was filled by the appointment of Dr. Knight Dunlap, of the University of California. Dr. N. T. Burrow was appointed Assistant in the same subject. Dr. Riley held a Johnston Research Scholarship for another year (the third), and is to publish immediately the results of his researches, in various libraries, in the sources of early American Philosophy.

The Psychological Laboratory.—During the year the usual courses in Experimental Psychology, both introductory and advanced, have been conducted by the regular officers of the laboratory; while lectures and demonstrations in physiological psychology have been given by Dr. Farrar. The laboratory has been made more effective by bettering the physical equipment, and especially by the work of two new officers, Dr. Dunlap and Dr. Burrow.

Other than the preliminary training in experiment, there has been an original investigation of certain problems in space-perception—the influence upon judgments of extent exerted by
changes of weight (Mr. Costin), the connection between the perception of movement and that of extension (Dr. Furry), the apparent temporal displacement of optical impressions (Dr. Burrow), sensation and the means for the accurate production of rhythm (Dr. Dunlap), the relative advantages of position and of color for railway signaling at night (Dr. Stratton). The results of some of these studies have been published during the year, and others are now in preparation for publishing.

Besides the work of the laboratory, a course was given by Dr. Dunlap on Subconscious Phenomena, and by Professor Stratton on the Psychology of Perception.

**Undergraduate Courses**

Undergraduate courses in Logic and Ethics have been conducted by Professor Griffin, and a course in Psychology by Professor Griffin and Professor Stratton.

All candidates for the degree of Bachelor of Arts are required to follow these courses during the last year of residence. The several subjects are distributed through the year as follows: Deductive and Inductive Logic, October 1 till the Christmas recess; Psychology, January 1 to April 15; Ethics, April 15 to June 1. Text-books are used in each subject, as affording definite material of acquisition, but informal lectures, passages assigned for reading, discussions in the class, the preparation of essays, etc., are largely relied upon in the presentation.

An elective course in History of Philosophy, two hours weekly through the year, has been conducted by Professor Griffin.

**J. Mark Baldwin,**
*Professor of Philosophy and Psychology.*

**Edward H. Griffin,**
*Professor of the History of Philosophy.*
## TABULAR STATEMENT OF COURSES OF INSTRUCTION, 1906-07

<table>
<thead>
<tr>
<th>INSTRUCTORS</th>
<th>COURSES</th>
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<th>No. of students 2nd half-year</th>
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### MATHEMATICS

- Dynamics
- Elliptic Functions
- Higher Geometry
- Theory of Functions
- Theory of Numbers
- Differential Equations
- Differential Equations: Elem.
- Vector Analysis
- Determinants; Calculus
- Differential and Integral Calculus
- Theory of Correspondences
- Plane Analytic Geometry
- Elem. Solid Geometry; Adv. Algebra

### PHYSICS

- Journal Meeting
- Physical Optics
- Thermodynamics; Heat Conduction
- Physical Optics
- Mechanics: Acoustics; Electricity
- General Physics
- Applied Electricity: Second year
- Astronomy
- Conduction of Electricity Through Gases

### CHEMISTRY

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- Journal Meeting
- Inorganic Chemistry: Advanced
- Physical Chemistry
- Electrical Nature of Matter and Radioactivity
- Special Topics in Chemistry
- Physico-Organic Chemistry
- Inorganic Chemistry
- Organic Chemistry
- General Chemistry

### LABORATORY WORK

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### GEOLOGY

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<th>Instructors</th>
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### ZOOLOGY AND BOTANY

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**PHILOSOPHY AND PSYCHOLOGY**

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**DRAWING**

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REPORT OF THE REGISTRAR

During the year 1906-1907 the academic staff included one hundred and seventy-four teachers, eighty in the philosophical department and ninety-four whose work lay wholly in medicine. There were also twenty-two lecturers, mostly non-resident, who gave single lectures or short courses during the session. The number of students enrolled was six hundred and seventy-one of whom two hundred and fifty-seven were residents of Maryland, three hundred and ninety-two came here from forty-three other States of the Union, and twenty-two from foreign countries. Among the students were five hundred and four already graduated, one hundred and fifty-eight of whom were enrolled in the department of Philosophy and the Arts, three hundred and forty-six in the department of Medicine. They came from one hundred and eighty-five colleges and universities. There were one hundred and forty-six matriculates (or candidates for the degree of Bachelor of Arts), and twenty-one were admitted as special students, to pursue courses of study for which they seemed fitted, without reference to graduation. The enrolment for the year is summarized below:

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<td>Fellows by Courtesy</td>
<td>5</td>
</tr>
<tr>
<td>Fellows</td>
<td>20</td>
</tr>
<tr>
<td>Candidates for the degree of M. D.</td>
<td>263</td>
</tr>
<tr>
<td>Physicians attending Special Courses</td>
<td>84</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>505</strong></td>
</tr>
<tr>
<td>Undergraduates:</td>
<td></td>
</tr>
<tr>
<td>Candidates for the degree of A. B.</td>
<td>140</td>
</tr>
<tr>
<td>Not candidates for a degree</td>
<td>21</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>167</strong></td>
</tr>
<tr>
<td>Counted twice</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>672</strong></td>
</tr>
</tbody>
</table>

During the past thirty-one years, five thousand six hundred and eighty-three individuals have been enrolled as students, of whom two thousand one hundred and forty-nine are registered as from Maryland (including seventeen hundred and twenty-six from Baltimore), and three thousand five hundred and thirty-four from seventy-seven other States and countries. Three thousand eight hundred and three persons entered as graduate
students, and eighteen hundred and eighty entered as undergraduates. Of the undergraduates, five hundred and two have continued as graduate students, many of them proceeding to higher degrees. It thus appears that four thousand three hundred and five persons have followed graduate studies here. The following table shows the enrolment of students in each year:

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Enrolled</th>
<th>Graduates (incl. Fellows)</th>
<th>Matriculates</th>
<th>Non-Matriculates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1876-77</td>
<td>89</td>
<td>84</td>
<td>12</td>
<td>23</td>
</tr>
<tr>
<td>1877-78</td>
<td>104</td>
<td>98</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>1878-79</td>
<td>123</td>
<td>83</td>
<td>25</td>
<td>35</td>
</tr>
<tr>
<td>1879-80</td>
<td>159</td>
<td>79</td>
<td>32</td>
<td>48</td>
</tr>
<tr>
<td>1880-81</td>
<td>176</td>
<td>102</td>
<td>37</td>
<td>37</td>
</tr>
<tr>
<td>1881-82</td>
<td>175</td>
<td>99</td>
<td>45</td>
<td>31</td>
</tr>
<tr>
<td>1882-83</td>
<td>204</td>
<td>135</td>
<td>49</td>
<td>30</td>
</tr>
<tr>
<td>1883-84</td>
<td>249</td>
<td>159</td>
<td>53</td>
<td>37</td>
</tr>
<tr>
<td>1884-85</td>
<td>290</td>
<td>174</td>
<td>69</td>
<td>47</td>
</tr>
<tr>
<td>1885-86</td>
<td>314</td>
<td>184</td>
<td>96</td>
<td>34</td>
</tr>
<tr>
<td>1886-87</td>
<td>378</td>
<td>228</td>
<td>108</td>
<td>43</td>
</tr>
<tr>
<td>1887-88</td>
<td>420</td>
<td>231</td>
<td>127</td>
<td>62</td>
</tr>
<tr>
<td>1888-89</td>
<td>394</td>
<td>216</td>
<td>129</td>
<td>49</td>
</tr>
<tr>
<td>1889-90</td>
<td>404</td>
<td>229</td>
<td>130</td>
<td>45</td>
</tr>
<tr>
<td>1890-91</td>
<td>408</td>
<td>276</td>
<td>141</td>
<td>51</td>
</tr>
<tr>
<td>1891-92</td>
<td>547</td>
<td>337</td>
<td>140</td>
<td>70</td>
</tr>
<tr>
<td>1892-93</td>
<td>551</td>
<td>347</td>
<td>133</td>
<td>71</td>
</tr>
<tr>
<td>1893-94</td>
<td>632</td>
<td>344</td>
<td>123</td>
<td>55</td>
</tr>
<tr>
<td>1894-95</td>
<td>589</td>
<td>412</td>
<td>125</td>
<td>51</td>
</tr>
<tr>
<td>1895-96</td>
<td>596</td>
<td>406</td>
<td>149</td>
<td>41</td>
</tr>
<tr>
<td>1896-97</td>
<td>620</td>
<td>344</td>
<td>144</td>
<td>32</td>
</tr>
<tr>
<td>1897-98</td>
<td>641</td>
<td>456</td>
<td>152</td>
<td>33</td>
</tr>
<tr>
<td>1898-99</td>
<td>649</td>
<td>462</td>
<td>163</td>
<td>34</td>
</tr>
<tr>
<td>1899-1900</td>
<td>645</td>
<td>469</td>
<td>159</td>
<td>17</td>
</tr>
<tr>
<td>1900-01</td>
<td>651</td>
<td>473</td>
<td>158</td>
<td>20</td>
</tr>
<tr>
<td>1901-02</td>
<td>694</td>
<td>530</td>
<td>158</td>
<td>6</td>
</tr>
<tr>
<td>1902-03</td>
<td>695</td>
<td>532</td>
<td>147</td>
<td>16</td>
</tr>
<tr>
<td>1903-04</td>
<td>715</td>
<td>558</td>
<td>141</td>
<td>18</td>
</tr>
<tr>
<td>1904-05</td>
<td>746</td>
<td>563</td>
<td>160</td>
<td>23</td>
</tr>
<tr>
<td>1905-06</td>
<td>720</td>
<td>530</td>
<td>168</td>
<td>27</td>
</tr>
<tr>
<td>1906-07</td>
<td>671</td>
<td>504</td>
<td>146</td>
<td>21</td>
</tr>
</tbody>
</table>
The following table indicates the geographical distribution of the students:

<table>
<thead>
<tr>
<th>Year</th>
<th>From Maryland</th>
<th>From Other States</th>
<th>Total</th>
<th>From Maryland</th>
<th>From Other States</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1878-79</td>
<td>59</td>
<td>51</td>
<td>110</td>
<td>28</td>
<td>26</td>
<td>54</td>
</tr>
<tr>
<td>1879-80</td>
<td>77</td>
<td>77</td>
<td>154</td>
<td>22</td>
<td>22</td>
<td>44</td>
</tr>
<tr>
<td>1880-81</td>
<td>87</td>
<td>87</td>
<td>174</td>
<td>28</td>
<td>28</td>
<td>56</td>
</tr>
<tr>
<td>1881-82</td>
<td>97</td>
<td>97</td>
<td>194</td>
<td>28</td>
<td>28</td>
<td>56</td>
</tr>
<tr>
<td>1882-83</td>
<td>106</td>
<td>106</td>
<td>212</td>
<td>32</td>
<td>32</td>
<td>64</td>
</tr>
<tr>
<td>1883-84</td>
<td>123</td>
<td>123</td>
<td>246</td>
<td>28</td>
<td>28</td>
<td>56</td>
</tr>
<tr>
<td>1884-85</td>
<td>130</td>
<td>130</td>
<td>260</td>
<td>32</td>
<td>32</td>
<td>64</td>
</tr>
<tr>
<td>1885-86</td>
<td>130</td>
<td>130</td>
<td>260</td>
<td>32</td>
<td>32</td>
<td>64</td>
</tr>
<tr>
<td>1886-87</td>
<td>123</td>
<td>123</td>
<td>246</td>
<td>32</td>
<td>32</td>
<td>64</td>
</tr>
<tr>
<td>1887-88</td>
<td>130</td>
<td>130</td>
<td>260</td>
<td>32</td>
<td>32</td>
<td>64</td>
</tr>
<tr>
<td>1888-89</td>
<td>187</td>
<td>187</td>
<td>374</td>
<td>32</td>
<td>32</td>
<td>64</td>
</tr>
<tr>
<td>1889-90</td>
<td>187</td>
<td>187</td>
<td>374</td>
<td>32</td>
<td>32</td>
<td>64</td>
</tr>
<tr>
<td>1890-91</td>
<td>207</td>
<td>207</td>
<td>414</td>
<td>32</td>
<td>32</td>
<td>64</td>
</tr>
<tr>
<td>1891-92</td>
<td>233</td>
<td>233</td>
<td>466</td>
<td>32</td>
<td>32</td>
<td>64</td>
</tr>
</tbody>
</table>

The enrolment in the medical department is shown by the following table:

<table>
<thead>
<tr>
<th>Year</th>
<th>Candidates for the Degree of M. D.</th>
<th>Doctors of Medicine</th>
<th>Total Enrolment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1893-94</td>
<td>123</td>
<td>69</td>
<td>192</td>
</tr>
<tr>
<td>1894-95</td>
<td>123</td>
<td>77</td>
<td>197</td>
</tr>
<tr>
<td>1895-96</td>
<td>123</td>
<td>84</td>
<td>197</td>
</tr>
<tr>
<td>1896-97</td>
<td>123</td>
<td>97</td>
<td>197</td>
</tr>
<tr>
<td>1897-98</td>
<td>123</td>
<td>106</td>
<td>198</td>
</tr>
<tr>
<td>1898-99</td>
<td>123</td>
<td>112</td>
<td>199</td>
</tr>
<tr>
<td>1899-1900</td>
<td>123</td>
<td>116</td>
<td>199</td>
</tr>
<tr>
<td>1900-01</td>
<td>123</td>
<td>120</td>
<td>199</td>
</tr>
<tr>
<td>1901-02</td>
<td>123</td>
<td>125</td>
<td>199</td>
</tr>
<tr>
<td>1902-03</td>
<td>123</td>
<td>127</td>
<td>199</td>
</tr>
<tr>
<td>1903-04</td>
<td>123</td>
<td>128</td>
<td>199</td>
</tr>
<tr>
<td>1904-05</td>
<td>123</td>
<td>130</td>
<td>199</td>
</tr>
<tr>
<td>1905-06</td>
<td>123</td>
<td>130</td>
<td>199</td>
</tr>
<tr>
<td>1906-07</td>
<td>123</td>
<td>130</td>
<td>199</td>
</tr>
</tbody>
</table>

The attendance upon the courses given in the principal subjects has been as follows during the last five years:

<table>
<thead>
<tr>
<th>Subject</th>
<th>1902-03</th>
<th>1903-04</th>
<th>1904-05</th>
<th>1905-06</th>
<th>1906-07</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td>66</td>
<td>62</td>
<td>58</td>
<td>44</td>
<td>57</td>
</tr>
<tr>
<td>Physics</td>
<td>68</td>
<td>89</td>
<td>88</td>
<td>71</td>
<td>78</td>
</tr>
<tr>
<td>Chemistry</td>
<td>106</td>
<td>120</td>
<td>126</td>
<td>117</td>
<td>109</td>
</tr>
<tr>
<td>Geology and Mineralogy</td>
<td>26</td>
<td>37</td>
<td>34</td>
<td>29</td>
<td>31</td>
</tr>
<tr>
<td>Biology (Zoology, Botany, Physiology)</td>
<td>171</td>
<td>173</td>
<td>179</td>
<td>169</td>
<td>168</td>
</tr>
<tr>
<td>Zoology and Botany</td>
<td>33</td>
<td>40</td>
<td>38</td>
<td>35</td>
<td>37</td>
</tr>
<tr>
<td>Pathology and Bacteriology*</td>
<td>33</td>
<td>32</td>
<td>31</td>
<td>28</td>
<td>29</td>
</tr>
<tr>
<td>Greek</td>
<td>65</td>
<td>53</td>
<td>52</td>
<td>49</td>
<td>51</td>
</tr>
<tr>
<td>Classical Archaeology and Art</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Sanskrit, etc.</td>
<td>36</td>
<td>36</td>
<td>36</td>
<td>36</td>
<td>36</td>
</tr>
<tr>
<td>Semitic Languages</td>
<td>109</td>
<td>100</td>
<td>103</td>
<td>87</td>
<td>80</td>
</tr>
<tr>
<td>German</td>
<td>104</td>
<td>101</td>
<td>104</td>
<td>81</td>
<td>80</td>
</tr>
<tr>
<td>French, Italian, and Spanish</td>
<td>95</td>
<td>93</td>
<td>91</td>
<td>88</td>
<td>85</td>
</tr>
<tr>
<td>English and Anglo-Saxon</td>
<td>192</td>
<td>155</td>
<td>128</td>
<td>117</td>
<td>109</td>
</tr>
<tr>
<td>History</td>
<td>111</td>
<td>89</td>
<td>108</td>
<td>86</td>
<td>61</td>
</tr>
<tr>
<td>Political Science</td>
<td>3</td>
<td>10</td>
<td>21</td>
<td>13</td>
<td>7</td>
</tr>
<tr>
<td>Political Economy</td>
<td>73</td>
<td>72</td>
<td>71</td>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td>Philosophy</td>
<td>64</td>
<td>52</td>
<td>49</td>
<td>74</td>
<td>75</td>
</tr>
</tbody>
</table>

*Including only the courses offered to graduates in medicine.
The degree of Bachelor of Arts was conferred during the year upon forty-seven candidates, the degree of Doctor of Medicine upon seventy-two, and thirty-five were advanced to the degree of Doctor of Philosophy. Since degrees were first conferred, in 1878, nine hundred and sixty-seven persons have attained the Baccalaureate degree, seven hundred and fifty-six the degree of Doctor of Philosophy, and five hundred and twenty-seven the degree of Doctor of Medicine, as appears from the following table,—the whole number of individuals graduated being two thousand and forty-five.

<table>
<thead>
<tr>
<th>Year</th>
<th>B. A.</th>
<th>Ph. D.</th>
<th>B. A.</th>
<th>Ph. D.</th>
<th>M. D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1877-78</td>
<td>6</td>
<td>4</td>
<td>1892-93</td>
<td>40</td>
<td>28</td>
</tr>
<tr>
<td>1878-79</td>
<td>3</td>
<td>6</td>
<td>1893-94</td>
<td>41</td>
<td>34</td>
</tr>
<tr>
<td>1879-80</td>
<td>16</td>
<td>5</td>
<td>1894-95</td>
<td>37</td>
<td>47</td>
</tr>
<tr>
<td>1880-81</td>
<td>12</td>
<td>9</td>
<td>1895-96</td>
<td>37</td>
<td>36</td>
</tr>
<tr>
<td>1881-82</td>
<td>15</td>
<td>9</td>
<td>1896-97</td>
<td>36</td>
<td>42</td>
</tr>
<tr>
<td>1882-83</td>
<td>10</td>
<td>6</td>
<td>1897-98</td>
<td>49</td>
<td>36</td>
</tr>
<tr>
<td>1883-84</td>
<td>23</td>
<td>15</td>
<td>1898-99</td>
<td>38</td>
<td>42</td>
</tr>
<tr>
<td>1884-85</td>
<td>9</td>
<td>13</td>
<td>1899-1900</td>
<td>46</td>
<td>35</td>
</tr>
<tr>
<td>1885-86</td>
<td>31</td>
<td>17</td>
<td>1900-01</td>
<td>41</td>
<td>30</td>
</tr>
<tr>
<td>1886-87</td>
<td>24</td>
<td>20</td>
<td>1901-02</td>
<td>49</td>
<td>17</td>
</tr>
<tr>
<td>1887-88</td>
<td>34</td>
<td>27</td>
<td>1902-03</td>
<td>46</td>
<td>27</td>
</tr>
<tr>
<td>1888-89</td>
<td>36</td>
<td>20</td>
<td>1903-04</td>
<td>37</td>
<td>31</td>
</tr>
<tr>
<td>1889-90</td>
<td>37</td>
<td>33</td>
<td>1904-05</td>
<td>33</td>
<td>35</td>
</tr>
<tr>
<td>1890-91</td>
<td>61</td>
<td>23</td>
<td>1905-06</td>
<td>48</td>
<td>22</td>
</tr>
<tr>
<td>1891-92</td>
<td>41</td>
<td>37</td>
<td>1906-07</td>
<td>47</td>
<td>35</td>
</tr>
</tbody>
</table>

Certificates of proficiency in applied electricity were awarded to ninety-one persons from 1889 to 1899.

T. R. Ball,
Registrar.
DEGREES CONFERRED, 1906-07

DOCTORS OF PHILOSOPHY.


Dissertation: The Osmotic Pressure of Cane Sugar Solutions in the Vicinity of 4° Centigrade. Referees on Dissertation: Professors Morse and Jones.


*Doctor of Medicine.*

Merle Theron Adkins, of Troy, Wis., S. B., Beloit College, 1903.
Francis Merriman Barnes, Jr., of Middletown, N. Y., A. B., Hamilton College, 1903.
Edward Grant Birge, of Madison, Wis., S. B., Wisconsin, 1903.
Montague Laffitte Boyd, of Savannah, Ga., Ph. B., Emory, 1903.
Leverett Dale Bristol, of Washington, D. C., S. 'B.', Wesleyan University (Conn.), 1903.
Chester Timothy Brown, of Atlantic City, N. J., S. B., Rutgers College, 1903.
Wade Hampton Brown, of Marshall, Tex., S. B., University of Nashville, 1899.
Frederick Dabney Bullock, of Lexington, Ky., S. B., Kentucky State College, 1899.
Edward Kimball Burbeck, of Manchester, N. H., A. B., Dartmouth College, 1903.
Charles Burnside, of Audubon, Ia., Ph. B., Iowa College, 1903.
Wald Edwin Carson, of Ripley, W. Va., A. B., Ohio Wesleyan University, 1900.
James H. Chesnutt, of Hot Springs, Ark., A. B., University of Virginia, 1903.
Elliot Round Clark, of Wethersfield, Conn., A. B., Yale, 1903.
Paul Wissall Clough, of Portage, Wis., S. B., Wisconsin, 1903.
Degrees Conferred

Fred Yohn Cronk, of Westminster, Md., S. B., St. John's, 1903. 
Robert Law Cunningham, of Newburgh, N. Y., A. B., Wabash College, 1901.
Cline Flemming Davidson, of Crawfordsville, Ind., S. B., Wabash College, 1900.
Paul Herman Dernahl, of Milwaukee, Wis., S. B., University of Wisconsin, 1903.
William Wert Dinsmore, of New Decatur, Ala., S. B., Alabama Polytechnic Institute, 1903.
Alphonse Raymond Dochez, of Harford County, Md., A. B., Johns Hopkins University, 1903.
Dan Hughes DuPree, of Danville, Ga., S. B., University of Georgia, 1903.
Willis Dew Gatch, of Aurora, Ind., A. B., Indiana University, 1901.
Henry Graber, of Royersford, Pa., A. B., Ursinus College, 1903.
Inslee Blair Greene, of Belvidere, N. J., Ph. B., Yale, 1902.
Clay Morrison Guthrie, of Indiana, Pa., A. B., Lafayette, 1903.
Aleck Perkins Harrison, of Tallahassee, Fla., A. B., Florida State College, 1899.
Franklin Hazlehurst, Jr., of Baltimore, A. B., Johns Hopkins University, 1903.
Ralph Wellington Hellenbrand, of Old Town, Me., A. B., Bowdoin College, 1903.
Elizabeth Singley Hellweg, of Baltimore, A. B., Woman's College of Baltimore, 1899.
Gladys Rowena Henry, of Burchard, Neb., S. B., Nebraska, 1900.
George Julius Heuer, of Madison, Wis., S. B., Wisconsin, 1903.
Eben Clayton Hill, of Baltimore, A. B., Johns Hopkins, 1903.
Charles Lane Hincher, of Kent, N. Y., S. B., Rochester, 1903.
Joseph Gardner Hopkins, of Brooklyn, N. Y., A. B., Columbia University, 1902.
Herbert Lester Kelley, of Franklin, N. H., A. B., Dartmouth College, 1903.
Allen Kramer Krause, of Lebanon, Pa., A. B., Brown, 1901.
Sally Porter Law, of Philadelphia, Pa., A. B., Bryn Mawr, 1903.
Bethuel Boyd Vincent Lyon, of Philadelphia, Pa., A. B., Williams College, 1903.
Perry William McLaughlin, of Mason-Dixon, Pa., A. B., Pennsylvania College, 1903.
Edward Fall Malone, of Nashville, Tenn., A. B., Vanderbilt University, 1903.
Morris Grey Orchard, of Rochester, N. Y., S. B., Fargo College, 1903.
Fred Thomas Owens, of West Winfield, N. Y., A. B., Hamilton College, 1903.
Charles Benjamin Palmer, of Little Falls, N. Y., A. B., Harvard University, 1901.
William Turner Parsons, of Philadelphia, Pa., A. B., Johns Hopkins University, 1903.
William Otto Paul, of Cincinnati, O., A. B., Cincinnati, 1902.
George Pelce, of Havreford, Pa., A. B., Havreford College, 1903.
Eugene Leo Pessagno, of Baltimore, A. B., Johns Hopkins, 1903.
Harry Ward Plaggemeyer, of Baltimore, A. B., Johns Hopkins University, 1903.
P. Preble, of Auburn, Me., A. B., Bowdoin College, 1903.
Alexander Randall, of Annapolis, Md., A. B., St. John's, 1902.
Daniel Pattee Ray, of Tyrone, Pa., A. B., Dickinson College, 1903.
Paul Preble, of Auburn, Me., A. B., Bowdoin College, 1903.
George Peirce, of Haverford, Pa., A. B., Haverford College, 1903.
Eugene Leo Pessagno, of Baltimore, A. B., Johns Hopkins, 1903.
Harry Ward Plaggemeyer, of Baltimore, A. B., Johns Hopkins University, 1903.
P. Preble, of Auburn, Me., A. B., Bowdoin College, 1903.
Alexander Randall, of Annapolis, Md., A. B., St. John's, 1902.
Daniel Pattee Ray, of Tyrone, Pa., A. B., Dickinson College, 1903.
Clarence Adair Rhodes, of Buchanan, Va., A. B., Randolph-Macon College, 1903.
Charles Woodward Riley, of Baltimore, A. B., Johns Hopkins University, 1903.
Mary Jane Ross, of Waverly, N. Y., A. B., Cornell University, 1893.
Edgar Poe Sandrock, of Baltimore, A. B., Johns Hopkins, 1903.
Hiram Sibley Schumacher, of Rochester, N. Y., Ph. B., University of Rochester, 1903.
Raymond Brown Scofield, of Hemet, Cal., S. P., Rochester, 1902.
George Arthur Smith, of Hartford, Conn., A. B., Yale, 1903.
Joseph Tate Smith, Jr., of Baltimore, A. B., Johns Hopkins University, 1903.
Charles Granville Souder, of Lafayette, Ind., S. B., Ohio State University, 1903.
P. Rosamond Straight, of Bradford, Pa., A. B., Smith, 1902.
Charles Henry Stubenrauch, of Baltimore, A. B., Johns Hopkins University, 1903.
Charles Henry Turkington, of Morris, Conn., Ph. B., Yale, 1903.
Lucius Tuttle, of New Haven, Conn., A. B., Yale, 1901.
Percy Theodore Watson, of Northfield, Minn., A. B., Carleton College, 1903.
William Henderson White, of Carlisle, Pa., A. B., Dickinson College, 1903.
Milton Charles Winternitz, of Baltimore, A. B., Johns Hopkins University, 1903.

BACHELORS OF ARTS

William Edwin Bird, Jr., of Baltimore.
Arthur Leonard Bloomfield, of Baltimore.
Oscar Ellis Bransky, of Baltimore.
John Alden Crane, of Maryland.
Carl Martin Distler, of Baltimore.

Ernest Pohl Doetsch, of Baltimore.
Daniel Ellison, of Baltimore.
Milton Strauss Erlanger, of Baltimore.
Abiathar William Field, of Baltimore.
Albert Joseph Fleischmann, of Baltimore.
Degrees Conferred

Henry Findlay French, of Baltimore.
Hiram Fried, of Baltimore.
Rogers Harrison Galt, Jr., of Virginia.
Wallis Giffen, of Baltimore.
William Rickert Gien, of Baltimore.
Clarence Pembroke Gould, of Baltimore.
Albert Grauer, of Baltimore.
Weston O’Brien Harding, of Baltimore.
Henry Patterson Harris, of Baltimore.
Ernest Singleton Hendry, of the District of Columbia.
Edward Tremaine Hills, of Baltimore.
John Frederick Hunter, of Baltimore.
Warren Belknap Hunting, of Baltimore.
Henry Parr Hynson, Jr., of Baltimore.
Iredell Waddell Iglehart, of Baltimore.
William Henry Jurney, Jr., of Baltimore.
Arthur Russell Knipp, of Baltimore.
Edmund Calvert Lynch, of Baltimore.
William Bose Marye, of Baltimore.
Thomas Addis Emmet Moseley, of Baltimore.
Walter Emil Myers, of Baltimore.
Arthur Rankin Padgett, of Baltimore.
Bernard Mark Parelhoff, of Baltimore.
Le Grand Winfield Perce, Jr., of Illinois.
Charles Frederick Pietsch, of Baltimore.
William Pleet, of Baltimore.
George Pitts Raleigh, of Baltimore.
William Andrew August Reinhardt, of Baltimore.
Leonel Fosque Revell, of Baltimore.
Herman Frederick Rolker, of Baltimore.
Karl Singewald, of Baltimore.
Jordan Herbert Stabler, of Baltimore.
George Adolph Stewart, of Baltimore.
Wilmer Theodore Stone, of Baltimore.
David Eli Strouse, of Baltimore.
Joseph Todhunter Ware, of Baltimore.
Horace Winfield Webster, of Baltimore.

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REPORT OF THE DEAN OF THE MEDICAL FACULTY

TO THE PRESIDENT OF THE JOHNS HOPKINS UNIVERSITY:

I beg leave to make the following report of the attendance and work in the Medical Department of the University during the session of 1906-07. At the beginning of the session seventy-seven applications were accepted, and of this number sixty-eight candidates presented themselves for matriculation in the first year, and one for advanced standing in the second year. While the entering class was larger than in the preceding year, the total enrollment for the whole School was less, namely 264, as compared with 293 for the session of 1905-06, owing to the large size of the class graduated in the previous year. The special courses given to Graduates in Medicine were attended by ninety-one physicians, so that the total number of students, graduates and undergraduates, amounted to 355. In accordance with the regulations adopted several years ago the Graduate Students were taught in part in the regular or University courses, in which case the fees received were taken by the University, and in part in the special courses, in which the fees, after a small deduction for registration, were paid to the instructors in charge. While this arrangement has resulted in a distinct diminution in the income of the Medical School, as compared with the conditions under the former regulations, it has given far better results from the standpoint of the instruction offered to these Medical Graduates, and in addition has encouraged the development and diversification of the opportunities for special study in the School.

The third course of lectures on the Herter foundation was given by Sir Almroth E. Wright, M. D., F. R. S., late Professor of Pathology, Army Medical School, Netley, and Pathologist to St. Mary's Hospital, London. The lectures were delivered in the Auditorium of the Physiological Building at 4.30 p. m., October 8th, 9th and 10th, 1906. The general subject of the lectures was "The therapeutic inoculation of bacterial vaccines, and its application in connection with the treatment of bacterial disease." They attracted a large audience of physicians and students, and there can be no doubt that the delivery of these lectures resulted in the development in this country of a widespread interest in the important subject considered. The obvious beneficial result in this case may be considered as a demonstration of the importance of such special courses of lectures.

The valuable collections of historical works in Medicine presented to the Medical School by Mr. William A. Marburg and Mr. Francis M. Jencks were properly catalogued and installed during the year. The general character and value of these collections were referred to in the last report, and many points of special interest in connection with these books are described in a
communication published in the *Johns Hopkins Hospital Bulletin*, Vol. XVIII, No. 153, April, 1907, by Dr. M. L. Raney, Assistant Librarian of the University. Mr. Marburg supplemented his gift of books by providing suitable cases for their preservation. On the evening of January 2, 1907, the two collections were formally accepted by the President and Trustees of the University at a public meeting. Appropriate and interesting addresses were made by Dr. William Osler and Dr. William H. Welch. On this occasion Dr. Osler also presented to the Library a copy of the first edition of the De Motu Cordis, by Harvey, Francofurti, 1628. This very valuable collection of historical works has given additional importance and dignity to our growing library, and I may be permitted to again call attention to the desirability of providing larger and safer quarters for these books. The books collected by the Medical School during its fourteen years of existence have become sufficiently numerous and valuable to call for a better housing and a better service. This is one of the needs of the School which becomes more and more apparent as the Library increases in size.

During the past session, as in former years, a number of books have been presented to the library by members of our teaching staff. For gifts of this kind during the past year we are especially indebted to Drs. J. W. Williams, H. Cushing, J. J. Abel, F. P. Mall and F. R. Sabin. During this session also the department of Surgical Pathology received a gift of $150 from Dr. Finney for the purchase of special supplies and apparatus.

During the past session an important change was inaugurated in the relations of the University to the Dispensary Department of the Hospital. The teaching in the Dispensary is done mainly by University instructors, and the expense of maintenance has also been borne in part by the University. Owing to the fact that the relations of the University and the Hospital must continually overlap in this department, a permanent arrangement has been effected by which the management and executive control are vested in a Director and Associate Director, while the expenses of maintenance are divided between the University and Hospital according to a certain definite ratio. This better organization of the Dispensary has borne good fruit on the teaching side, and we may hope that it will lead eventually to a further development of the resources of this department which is so important in the practical instruction of our students.

Another change of interest in connection with the instruction in the School has been the adoption of the elective principle in the arrangement of the schedules. The number of subjects offered in the curriculum of the medical studies has increased constantly with the growth of the School and the ever-widening development of the medical sciences. It has become evident that not all of the subjects which it is desirable to have represented in our curriculum can be made required studies for every student, and it has been thought better to rearrange our schedules on a new basis. The underlying principle of the new schedules has been to confine the work required of all students to a certain amount of instruction in the more fundamental subjects, and to this required work there is added a large number of elective courses, bearing either upon the fundamental or the
accessory branches of medicine. Each student is obliged to take all of the required work and a definite amount of elective work, but in the choice of the latter courses he is given as much latitude as possible. The work of the year has been arranged on a trimester basis, and the elective courses have been adjusted to run for one or more trimesters. It is hoped that by this new arrangement we shall obtain a more elastic schedule, which, while suitable to the average man, will also give to the exceptional student, or to the student with a specific object in view, a better opportunity to obtain a special training. It is expected that the further development of this plan will not only make it possible for students to select their work with reference to their future needs, but also to adapt the work to their special aptitudes or conditions of health. The individual may then be able to plan his courses somewhat independently of the general arrangement for a fixed four years' schedule.

The new Hunterian Laboratory of Experimental Medicine, although modestly housed and equipped, has undoubtedly contributed greatly to the value of the practical instruction in the Medical Department. The work carried on in this Laboratory is along somewhat novel lines, so far as medical instruction in this country is concerned, and there are some special difficulties in adapting it conveniently to the use of students. The results so far, however, have been most gratifying, and fully justify the expenditures incurred in the construction and maintenance of this Laboratory.

The most urgent need of the School at present is the enlargement and improvement of the laboratories devoted to the work in Pathology. The present building is obviously inadequate for the work of the department, and it is most desirable that our School should enjoy the advantages of a thoroughly modern and well-equipped pathological laboratory. The work done by this department, in instruction as well as in research, has obtained special recognition in medical circles for its excellence, and it is perhaps peculiarly important that the pre-eminence of the School in this respect should not be endangered by a deficiency in material equipment. Our present building was not especially designed for the uses now made of it. It has been distinctly overcrowded in recent years, and it does not compare favorably in point of construction and conveniences with the other laboratories of the School or with the newer pathological laboratories in other schools. If possible, therefore, steps should be taken to provide this department with a new building, better adapted to the instruction of our present relatively large classes and equipped with ample facilities for research in the various branches of this subject.

On the recommendation of the Advisory Board of the Medical Faculty the Trustees of the University awarded the degree of Doctor of Medicine to seventy-two graduates. One degree was granted February 22, 1907, to Miss P. R. Straight, and one on April 1, 1907, to Mr. L. Tuttle. The remaining seventy degrees were awarded at the public Commencement exercises June 12, 1907. The following twelve members of the graduating class were recommended to the Trustees of the Johns Hopkins Hospital for appointment as interns, the recommendation being

Owing to the fact that some of this number had accepted hospital positions elsewhere the three following members of the class were recommended in order of merit for similar positions: J. T. Smith, Jr., W. O. Paull and P. T. Watson. Additional positions obtained by members of this class either by appointment or by competitive examinations are as follows:

Merle Theron Adkins, S. B., Beloit College, 1903.—Interne, Union Protestant Infirmary, Baltimore.
Francis Merriman Barnes, Jr., A. B., Hamilton College, 1903, A. M. 1906.—Interne, Sheppard and Enoch Pratt Hospital, Towson.
Albert Henry Belfeld, A. B., Harvard University, 1902.—Interne, Michael Reese Hospital, Chicago.
Edward Grant Birge, S. B., University of Wisconsin, 1903.—Bacteriologist, Walbrook Testing Station, Baltimore.
Montague Laffitte Boyd, Ph. B., Emory College, 1903.—Interne, Walker Memorial Hospital, Wilmington, N. C.
Leverett Dale Bristol, S. B., Wesleyan University (Conn.), 1903.—Instructor In Pathology and Bacteriology, College of Medicine, Syracuse University, Syracuse, N. Y.
Chester Timothy Brown, S. B., Rutgers College, 1903.—Interne, New York City Hospital.
Wade Hampton Brown, S. B., University of Nashville, 1899; University of Chicago, 1902-03.—Interne, Union Protestant Infirmary, Baltimore, (until September 1, 1907); Instructor In Pathology, University of Virginia, Charlottesville.
Frederick Dabney Bullock, S. B., Kentucky State College, 1899.—Interne, German Hospital, New York.
Charles Burnside, Ph. B., Iowa College, 1903.—Interne, Passavant Memorial Hospital, Chicago.
Wald Edwin Carson, A. B., Wesleyan University (Ohio), 1900; spring and summer quarters, University of Chicago, 1903.—Interne, Allegheny General Hospital, Pittsburg, Pa.
Elliot Round Clark, A. B., Yale University, 1903.—Assistant In Anatomy.
Fred Yohn Crok, S. B., St. John's College, 1903.—Interne, The Lakeside Hospital, Cleveland, O.
Paul Herman Dernehl, S. B., University of Wisconsin, 1903.—Voluntary Assistant, University of Rostock, Germany.
Henry Graber, A. B., Ursinus College, 1903.—Interne, Presbyterian Hospital, Philadelphia.
Inslee Blair Greene, Ph. B., Yale University, 1902.—Interne, M. E. Hospital, Brooklyn, N. Y.
Milton Hahn, A. B., Harvard University, 1903.—Interne, Mt. Sinai Hospital, New York.
Franklin Hazlehurst, Jr., A. B., 1903.—Interne, Robert Garrett Hospital for Children, Baltimore.
Ralph Wellington Hellenbrand, A. B., Bowdoin College, 1903.—Interne, Hudson Street Hospital, New York.
Eben Clayton Hill, A. B., 1903; Graduate Student, Freiburg, summer session, 1905.—Assistant in Anatomy.
Herbert Lester Kelley, A. B., Dartmouth College, 1903.—First Lieutenant and Assistant Surgeon, U. S. Navy, Washington, D. C.
Allen Kramer Krause, A. B., Brown University, 1901, A. M., 1902, and Graduate Student, 1902-03.—Assistant in Pathology.
Bethuel Boyd Vincent Lyon, A. B., Williams College, 1903.—Interne, German Hospital, Philadelphia.
Edward Fall Malone, A. B., Vanderbilt University, 1903.—Clinical Assistant, Sheppard and Enoch Pratt Hospital, Towson.
Norris Grey Orchard, S. B., Fargo College, 1903.—Interne, City Hospital, Rochester, N. Y.
Fred Thomas Owens, A. B., Hamilton College, 1903, and A. M., 1906.—Interne, City Hospital, New York, N. Y.
Charles Benjamin Palmer, A. B., Harvard University, 1901.—Interne, New York Post-Graduate Hospital, New York.
William Turner Parsons, A. B., 1903.—Interne, Lakeside Hospital, Cleveland, O.
George Peirce, A. B., Haverford College, 1903.—Resident Physician, Dr. Grenfell's Hospital, St. Anthony, Newfoundland.
Eugene Leo Pessagno, A. B., 1903.—Interne, St. Joseph's Hospital, Baltimore.
Harry Ward Plaggemeyer, A. B., 1903.—Interne, King's County Hospital, Brooklyn, N. Y.
Paul Freble, A. B., Bowdoin College, 1903.—Surgical Interne, St. Agnes' Hospital, Baltimore.
Alexander Randall, A. B., St. John's College, 1902; Graduate Student, 1902-03.—Interne, German Hospital, Philadelphia.
Daniel Pattee Ray, A. B., Dickinson College, 1903.—Resident Physician, McKeesport Hospital, McKeesport, Pa.
Clarence Adair Rhodes, A. B., Randolph-Macon College, 1903.—Interne, St. Vincent's Hospital, New York.
Charles Woodward Riley, A. B., 1903.—Interne, The Woman's Hospital of the State of New York, New York City.
Mary Jane Ross, A. B., Cornell University, 1898, and Ph. D., 1902; Woman's Medical College of Pennsylvania, 1898-99; A. M., Pennsylvania, 1900.—Interne, The Babies' Hospital, New York.
Edgar Poe Sandrock, A. B., 1903.—Assistant Resident Gynecologist, St. Agnes' Hospital, Baltimore.
Hiram Sibley Schumacher, Ph. B., University of Rochester, 1903.—House Officer, Rochester Homeopathic Hospital, Rochester, N. Y.
Raymond Brown Scofield, S. B., University of Rochester, 1902.—Interne, J. Hood Wright Memorial Hospital, New York.
George Arthur Smith, A. B., Yale University, 1903.—Interne, The Hartford Hospital, Hartford, Conn.
Charles Henry Stubenrauch, A. B., 1903.—Assistant Resident Physician, Church Home and Infirmary, Baltimore.

William Henderson White, A. B., Dickinson College, 1903.—Interne, Paterson General Hospital, Paterson, N. J.

The following resignations from the Faculty were accepted: Dr. Ross G. Harrison, Associate Professor of Anatomy; Dr. Arthur W. Meyer, Instructor in Anatomy; Dr. Herman I. Schlesinger, Assistant in Physiological Chemistry; Dr. J. C. Meakins, Voluntary Assistant in Medicine; Dr. H. Klien, Voluntary Assistant in Medicine.

At the end of the year leave of absence was granted to Dr. G. H. Whipple, Instructor in Pathology, for the ensuing academic year, to take the position of Pathologist in the Ancon Hospital, Canal Zone, Panama.

A similar leave of absence was granted to Dr. Francis C. Goldsborough, Instructor in Obstetrics, to enable him to pursue graduate work in Germany.

The following students were obliged to withdraw from the School temporarily on account of ill-health, namely: Messrs. G. B. Gilbert, U. J. Wile, S. W. Schaefer, and J. J. Waring.

W. H. Howell,
Dean.
REPORT OF THE OFFICIAL STATE BUREAUS CONNECTED WITH THE UNIVERSITY

TO THE PRESIDENT OF THE JOHNS HOPKINS UNIVERSITY:

I submit herewith a report of the work of the official State Bureaus conducted under the auspices of the Geological Department.

THE MARYLAND GEOLOGICAL SURVEY

The Maryland Geological Survey, which has been in existence somewhat over eleven years, having been established by an Act of the General Assembly in March, 1896, has been in charge of Professor Clark as State Geologist since its establishment. The appropriations for the first two years amounted to $10,000 annually, but this was increased in 1898 by the passage of two additional Acts, one providing for the making of topographic maps for which $5,000 annually was appropriated, and the other providing for the investigation of the subject of road-building and the preparation of plans and specifications for highway construction for which $10,000 annually was appropriated. In 1904 a much more Important Act, known as the State Aid Highway Act, was passed, the administration of which was placed in the control of the Geological Survey. By this Act $200,000 is appropriated annually by the State to meet one-half the cost of improved highways, the other half of the expense being met by the county authorities. In 1906 the General Assembly appropriated $30,000 annually for 1906, 1907, and 1908 as well as providing for the use of the convicts in the House of Correction, for the construction of a modern highway from Baltimore to Washington. With these increases in the annual appropriations have come added duties and increased responsibilities. The work of the Survey now covers a wide field, including geology, topographic surveying, terrestrial magnetism, forestry, hydrography, agricultural soils, and highway engineering.

The geological work, which is directly under the charge of the State Geologist and Assistant State Geologist Professor Mathews, is divided into three divisions covering the areas of the Piedmont Plateau, the Appalachian Region, and the Coastal Plain. Investigations are in progress in all these districts and extensive areas in each have already been thoroughly studied. Reports have now been issued for Allegany, Garrett, Cecil, Calvert, and St. Mary's counties, while the investigations are completed for Harford, Kent, and Prince George's counties. Work is now in progress in Baltimore, Washington, Carroll, Howard, Queen Anne's, Talbot, and Caroline counties. In the conduct of the geological work the aid of numerous experts in various portions of the country has been sought, particularly in the study of the various groups of fossil
plant and animal remains. Monographs on the Eocene, Miocene, Pliocene and Pleistocene deposits of the State have already been published, and similar reports on the Devonian, on the Carboniferous-Permian, and on the Cretaceous deposits are now in progress of preparation. Special work has been started on the lime and cement rocks of the State.

The topographic work has been continued in co-operation with the U. S. Geological Survey. The results of this work are presented to the public in the form of topographic and election-district maps, which show in a very detailed manner not only the relief of the land, but all cultural features as well. Maps of Allegany, Garrett, Harford, Cecil, Kent, Worcester, Prince George's, Calvert, St. Mary's, Queen Anne's, Caroline, Talbot, Wicomico, and Somerset counties have already been issued, as well as a map of Baltimore and vicinity. Surveys are also completed for Baltimore, Dorchester, Anne Arundel, Howard, and Montgomery counties and maps for the first three of these counties will soon be issued. About five-sixths of the State has now been surveyed on the scale of one mile to the inch.

The investigations in terrestrial magnetism, hydrography, agricultural soils, and forestry have been prosecuted as heretofore in co-operation with several of the national bureaus. The forestry work is now largely in charge of the newly organized State Forestry Bureau, but the Geological Survey will continue to publish the county reports and maps on this subject.

The Highway Division of the Survey has continued, under the immediate direction of W. W. Crosby, C. E., Chief Engineer, to be busily engaged in the preparation of plans and specifications for the improvement of the main roads of the different counties of the State and in supervising the work of construction. Notwithstanding the lack of co-operation, amounting in some cases to active opposition, of some of the road officials of various counties, the results of the work under the State Aid Law in 1905 and 1906 have won such popular favor as to result in considerably more actual mileage being improved in 1907, in spite of the efforts of the hostile county officials. In many counties, where the officials are of the better class, the educational value of the actual results secured on the roads has been so great as to arouse enthusiasm among both people and officials to secure the greatest amount of results possible with the annual resources; and even in some cases has stimulated the popular desire for more and earlier results even to the point of supporting a bond issue for this purpose. Surveys, plans, and specifications have been made during the past year for forty-eight miles of road, and the total mileage completed to date is forty-two miles.

Work has continued on the Baltimore-Washington road, the Act and appropriation for which were passed in 1906, and it is hoped to have at least ten miles of this road fully completed by the end of the present season. In addition, the work of grading, draining, and bridging will have been practically completed on nearly nine more miles. In connection with this work, the convicts from the Maryland House of Correction have been used, as provided by the Act. These men have been working in a stone quarry in getting out and crushing material for surfacing the road. The State has, with the present condition of the labor
market, benefited by the use of these men. Skilled labor has benefited as well by the removal of this body of men from competition with it, and the men themselves have greatly benefited by the exercise, the healthier surroundings, and the out-of-door existence. The experience of the State in this particular, confirmed by the reports of similar experiences in many other places, furnishes the strongest kind of support to the advocates of the use of criminals on the roads of a state, and a good solution of many of the problems concerning both the roads and the criminals themselves is suggested.

The testing work of the Highway Division has been carried on as usual and a large number of tests of paving and other brick, crushed stone, cement, etc., have been made for the City of Baltimore and many of the towns of the State.

The Highway Division has also further assisted a number of towns and counties of the State, and some of the other State Commissions, with technical advice concerning many of the engineering problems met with by them, and it is believed that the aid thus rendered has been appreciated.

THE MARYLAND WEATHER SERVICE

The Maryland Weather Service has been in existence sixteen years, having been organized in May, 1891, under the joint auspices of the Johns Hopkins University, the Maryland Agricultural College, and the U. S. Weather Bureau. It was established as an official organization by an Act of the General Assembly in 1892, which was approved by the Governor in April of that year. The State Service under this Act was permanently placed at the Johns Hopkins University under the direction of a board of control, who are nominated by the heads of the three institutions above mentioned and subsequently commissioned by the Governor. The appropriation for the maintenance of the bureau has been $2,000 annually from the beginning, the fund being employed mainly for investigations concerning the climatology of the State. Professor Clark is the chief of the bureau.

The investigations of the Maryland Weather Service during the past year have consisted, first, of a study of the climate of Baltimore by Dr. Fassig, of the U. S. Weather Bureau, who is Associate in Meteorology in the University. The results of this work are now in print and will be published as Volume II of the Maryland Weather Service reports. A second line of investigation has embraced a botanical survey of the State which has been conducted under the direction of Dr. Forrest Shreve.

MARYLAND FORESTRY BUREAU.

An Act was passed by the General Assembly of 1906 providing for the establishment of a State Board of Forestry of seven members, four of whom are ex officio the same as the Commissioners of the Geological Survey, the fifth is the State Geologist, while the sixth and seventh are appointed by the Governor. Professor Clark is the Executive Officer and has been authorized by the Board to see that the provisions of the Act are carried out. Mr. F. W. Besley is the State Forester. Under this Act $3,500 is
State Bureaus

annually appropriated for forest studies and for the education of the people of the State in matters pertaining to forest management. The investigations under this Act have been in progress during the past year, and already the work of the bureau has proved of much value to the forestry interests of the State. The forestry survey of the counties already started by the Geological Survey will be continued in co-operation with the Forestry Bureau, the county reports and maps still continuing to be published by the Geological Survey. Prince George's County has recently been completed as a result of this co-operation.

Much aid has been rendered the State official organizations above mentioned by the chiefs of the various national scientific bureaus. Particular reference should be made to the co-operation granted by the Director of the U. S. Geological Survey, the Chief of the U. S. Weather Bureau, the Superintendent of the U. S. Coast and Geodetic Survey, and the Chief of the U. S. Forest Service, all of whom have cordially supplemented the work of the State bureaus in highly important ways. The work of the State organizations is in progress along so many lines that it affords admirable opportunities to the advanced students of the geological department to obtain much-desired practical experience both in the field and in the laboratory, while at the same time the State has received a large return for its outlay.

Wm. Bullock Clark,
State Geologist and Director.
REPORT OF THE SECRETARY OF THE
HOMEWOOD COMMITTEE

The work at Homewood during the year 1906-07 represents the
first steps in the actual development of the area.

ORGANIZATION.

The appointment by the Trustees of the University of a stand-
ing committee, to whom should be referred all questions relating
to the handling of the property, was very opportune, coming as
it did during the period preceding actual work. This Committee
consisting of Messrs. Buckler, Keyser, Remsen, White, Marburg,
Venable, and Levering, organized by the selection of Mr. Buckler
as Chairman. Before the end of the year, on account of the
resignation of Mr. Buckler, Mr. Randall became Chairman.

Prior to this year the Alumni interested in the construction of
the Hopkins Field had been well represented by a committee of
local graduates, but the co-operation of all interested in this
desired end has been systematized by the appointment of a
small joint committee consisting of Messrs. Keyser and Randall
representing the Trustees and Messrs. Straus and Thomas, the
Alumni. The immediate care of the Hopkins Field for the present
is intrusted to Messrs. Mathews, Straus, and Abercrombie.

All work as usual is done under the general guidance of the
Advisory Board consisting of Messrs. Olmsted, Wyatt, and Cook.
Professor Mathews acts as Secretary of all these committees,
serving thus as the medium of communication.

THE WORK OF THE ADVISORY BOARD.

The final elaboration of the plans for the placing of the build-
ings upon the grounds prepared by Messrs. Parker and Thomas
was accepted by the Advisory Board at its meeting in November.
At this time it was also decided to begin the trimming and
thinning out of the woodland portions of the tract necessary to
preserve the trees in their best condition.

During the latter part of the winter Mr. A. A. Shurtleff, of
Boston, prepared plans for the treatment of the area adjoining
the athletic field, the botanical garden, and the road from Charles
Street to the proposed site of the professors' houses. These plans
were submitted to the Advisory Board and accepted by them.

In the early spring plans were prepared by Messrs. Parker and
Thomas for an addition to the small cottage near the athletic
field, known as "Aspenview," which would serve as a locker and
dressing room for the students. This was also approved by the
Advisory Board.

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Actual construction has been going on at the athletic field and in its immediate surroundings in the erection of a fence about the entire property, in the building of the locker house, and in the preparing of the grounds for the greenhouse and Botanical Garden.

Athletic Field. The quarter-mile track and the inner field have been constructed and finished in the most approved style, and will be opened to the students for intercollegiate games at the beginning of the year 1907-08. The field has been carefully underdrained and grassed and bids fair to prove one of the best athletic fields in the country. The track was constructed under the best expert advice, and when used is expected to be one of the fastest available to college students.

The area immediately surrounding the athletic field is being graded and prepared for seeding, in accordance with the plans proposed by Mr. Shurtleff. The embankment for the sub-grade of the 220-yards straightaway track is now nearly ready for the cinder surface, which can be laid another season.

The work of filling, grading, and seeding proposed for this season's work has been seriously hampered by the unusually heavy rains of the summer, which have necessitated some of the work being done over because of the heavy "wash" occasioned by water flowing over the slopes before the grass was strong enough to hold the soil.

Fencing. Because of the popular growth of the belief that the grounds were public property, their unpoliced condition, and the careless treatment accorded the vegetation, it has become necessary to fence in the entire grounds. The erection of a four and a half-foot wire-mesh fence has been successfully completed for about two-thirds of the grounds, but that portion of the boundary along Charles Street cannot be finished until the city improvements referred to below have been completed. The magnitude of this piece of work is seen from the fact that posts must be set and wire strung for a distance of two miles in order to enclose completely the property.

Plans were prepared by the architects for a permanent gateway with ticket houses and for a permanent concrete and iron fence along the face of the property, but the erection was deemed too expensive for immediate execution. It has been suggested that the various classes might erect suitable memorials by the contribution of gateways and panels of the fence.

Pending the growth of the hedges along University Parkway, it has been found necessary to erect a screen cutting off the view of athletic contests. This has been accomplished by the device of a canvas fence stretched from firmly established posts, which is taken down after the games.

Locker House. The first building erected on the grounds for University purposes has been the addition to the cottage "Aspenview," which is designed as a dressing room and locker house for the students using the Hopkins Field. This building is equipped with closets, shower baths, hot and cold water, and will be completed in time for use during the fall games.
Botanical Garden and Greenhouse. Contracts have been let for the rough grading of the botanical gardens in accordance with the plans prepared by Mr. Shurtleff, and for the greenhouse after the plans of Messrs. Parker and Thomas. The bids received for the erection of the potting house were so high that it was deemed advisable to postpone the erection of this, the first of the permanent buildings, until another year.

Forestry Work. A beginning has been made in the clearing-up and improvement of the extensive wooded areas on the grounds. This work has been done under the supervision of Mr. F. W. Besley, the State Forester, who has carefully examined the health and probable life of the trees along the Charles Street front. Since all of these trees cannot remain when the grounds are occupied, and since the trees which are to remain might be injured by the sudden removal of their neighbors, Mr. Besley has classified and marked the trees which should remain, and those which should be removed at once in order to obtain the best permanent stand.

WIDENING OF CHARLES STREET.

During the year the University deeded to the city a strip of land 32 feet wide along the entire Charles Street front, which has led to the improvement of this boulevard by the city authorities. According to the plans which the city is now following, Charles Street, along the entire front of the University property, will be laid out as a boulevard 130 feet wide. In the centre will be a 40-foot driveway of bitulithic, on either side of which are to be shaded walks 26 feet wide, skirted by narrower roadways and sidewalks facing the property on either side. With the completion of this improvement the University property will be entirely surrounded by city driveways. On the north is University Parkway 120 feet wide, on the east Charles Street 130 feet wide, and on the south and west Wyman Park with a driveway and walk extending from Charles and Thirtyfeith Streets to the Stony Run bridge at the western end of University Parkway.

MISCELLANEOUS.

The work carried out at Homewood during the past year has necessitated the employment of a groundsman and the purchase of a certain amount of equipment in the form of tools and horses. This has involved more or less expense for the maintenance of the grounds, but it is expected that a part at least of this expense will be met each year from the income derivable from the hay which can be cut each season. There will, however, be a certain amount required each year, in addition to that derived from the rental of the Carroll Mansion, for the maintenance and improvement of the grounds, prior to the removal of the University to its new home.

Edward B. Mathews,
Secretary of the Homewood Committee.
REPORT ON THE COLLECTION OF CLASSICAL ANTIQUITIES RECENTLY ACQUIRED

TO THE PRESIDENT OF THE JOHNS HOPKINS UNIVERSITY:

The collection of antiquities was made with especial reference to the work in Classical Archaeology and meets the need of illustrative material for class instruction. It consists of more than one thousand specimens, covering a wide range of subject and material, and contains objects which illustrate many phases of ancient Roman life. These objects may be classified as follows:

1. Building materials, for use in connection with the study of Roman architecture. These include specimens of the various volcanic and other building stones used at different periods in Rome and in Pompeii; imperial bricks of several shapes, sizes, and colors, and of varying date, many of them stamped with the names of the makers; lead water pipes inscribed with the names of emperors and others; and polished samples—about two hundred in number—of the principal kinds of white and colored marble which were imported from Asia, Africa, and Greece to Rome in the first three centuries of our era.

2. Latin and Greek inscriptions, more than one hundred in number, which furnish original materials for the study of Epigraphy. Most of these are from recent excavations and are as yet unpublished. One of the most important, which brings to light the name of a divinity hitherto unknown, is edited and discussed in Number 112 of the American Journal of Philology; the others will be published as rapidly as possible. They are engraved in most cases on marble slabs, in a few cases on bronze, and range in date from the third century B. C. to the fourth century A. D. In this connection may be mentioned also the plaster casts of two important inscriptions from the Roman Forum, namely, the archaic stele and the honorary inscription to Lucius Caesar.

3. Ancient bronzes, Greek, Italic, Etruscan, and Roman, from various parts of Italy and Sicily. These include a considerable variety of ornaments and utensils, such as rings, bracelets, fibulae, vases, strainers, basins and water vessels, strigils, oil and perfume bottles, shield ornaments, spearpoints, weights and scales, locks and keys, statuettes of Lares and other divinities, spoons, lamps, candelabra, mirrors, charms and the like, all throwing light on the customs and manners of the ancient inhabitants of Italy.

4. Objects of marble, not previously mentioned. Several small statues, notably of Silvanus, of Cybele, of Diana, of a camillus, though not by great artists, are yet very useful for the study of
sculpture: and a bust wearing a theatrical mask is of interest because it was once in all probability part of the decoration of an ancient theatre at Capua. Besides these, we have two inscribed cinerary urns with their contents and several fragments of architectural ornament, which show the chief patterns employed by Roman architects.

5. Terracottas. Under this heading may be mentioned an Etruscan cinerary urn with a Greek mythological scene in relief, two Etruscan urn covers with sculptured reclining figures, ornamental reliefs, antefixes, waterspouts, wine jars, children’s toys, a coin savings bank, lamps, and small Greek vases from Sicily.

6. Gold and silver ornaments. Objects of the more precious metals are naturally fewer, but were selected with great care. They include specimens of Etruscan and Roman workmanship, such as fibulae, earrings, finger rings with plain and with cut gems, and an especially fine necklace of gold with pearls and emeralds, which was found in a tomb at Viterbo. Of particular importance, too, is the facsimile of the famous gold fibula of Praeneste with the oldest known Latin inscription (c. 550 B.C.)

7. Glassware. We have a few good specimens of ancient Roman glass in the form of bottles, vases, bowls, and ornaments of various sorts. Their iridescence, due to long burial in the earth, makes them even more beautiful now than in antiquity.

8. Objects of chalcedony, ivory, bone and lead. Only a few articles need be mentioned, such as a comb, a rouge-box, hairpins, and writing utensils (stili).

9. Coins. About one hundred coins, one of gold, others of silver and bronze, were picked up to supplement our Helbig collection and lay a broader foundation for the study of Numismatics.

In conclusion, I should like to point out that our new acquisitions, together with the Greek vases, Greek and Roman coins, and other Classical Antiquities already in the possession of the University, form the nucleus of a good archaeological museum, which, I venture to hope, may be enlarged from time to time by other generous gifts.

Harry L. Wilson,
Professor of Roman Archaeology and Epigraphy.
ABSTRACT OF THE REPORT OF THE
JOHNS HOPKINS PRESS

The several serials have been continued through the year as follows:

Of the American Journal of Mathematics, edited by Professor Morley, volume twenty-eight, 412 pages, quarto, and 3 plates, has been completed, and three numbers of volume twenty-nine have been issued. A portrait of Professor Hilbert, of Göttingen, was issued with this volume.

Of the American Chemical Journal, edited by President Remsen, volume thirty-six, 652 pages, octavo, has been completed and eight numbers of the volumes for 1907 have been issued since the commencement of the year.

Of the American Journal of Philology, edited by Professor Gildersleeve, volume twenty-seven, 506 pages, octavo, has been completed, and two numbers of volume twenty-eight have been issued.

Of the Studies in Historical and Political Science, edited by Professor Vincent, Professor Hollander, and Professor Willoughby, the twenty-fourth series is completed. It contains 832 pages, octavo. The twenty-fifth series is now in progress. The set now consists of twenty-four volumes of the regular series and twenty-five "extra volumes." The issues since the last report have included papers on National Labor Federations in the United States, by William Kirk; Maryland during the English Civil Wars, Parts I and II, by B. C. Steiner; Internal Taxation in the Philippines, by John S. Hord; The Monroe Mission to France, 1794-1796, by B. W. Bond, Jr.; and The State in Constitutional and International Law, by Robert Treat Crane.

Of the Modern Language Notes, edited by Professor Elliott, volume twenty-one, 256 pages, quarto, has been completed, and six numbers of volume twenty-two have been issued.

Of Terrestrial Magnetism and Atmospheric Electricity, edited by Dr. Bauer, volume eleven, 210 pages, octavo, has been completed, and one number of volume twelve has been issued.

Nos. 190 to 199, 1032 pages, octavo, of the University Circular have been issued since the last report. These have included the Medical Department Catalogue, the Preliminary and General Registers of the University, the President's Report, the Programme for the next academic year, and special numbers with notes from the seminars and laboratories in mathematics, Sanskrit, economics, biology, botany, and geology; together with classlists, announcements, etc.

Of the second series of Reprints of Economic Tracts, under the editorial direction of Professor Hollander, the third number, Discourses upon Trade, by Dudley North, London, 1691, has been issued, and the fourth number of this series is in press.
Of the Bulletin of the Johns Hopkins Hospital, volume seventeen, 418 pages, folio, with numerous illustrations, has been completed, and eight numbers of volume eighteen have appeared.

Of the Johns Hopkins Hospital Reports, volume thirteen, 624 pages, octavo, and volume fourteen, 640 pages, octavo, have been issued. They are devoted to Studies in Genito-Urinary Surgery. These volumes contain twenty-four separate papers, and numerous plates and illustrations.

Of the Contributions to Assyriology, edited by Professor Haupt, number two of volume six has been issued. This contains a paper on Purim by the editor. Volume six, number one, is still in press.

We have added to our list of publications a volume by Dr. D. M. Robinson on Ancient Sinope, 112 pages, octavo.

Of the Albert Shaw Lectures on Diplomatic History, edited by Professor Vincent, there are now in press the following volumes: American Diplomacy under Tyler and Polk, by Professor Jesse S. Reeves, and The International Law and Diplomacy of the Spanish-American War, by Professor E. J. Benton.

The system of exchanges has been conducted as in previous years.

There have been received in accordance with the rules and regulations, 150 copies of the dissertations accepted for the degree of Doctor of Philosophy, from:

Crane, R. T.—The State in Constitutional and International Law.
Dunbar, P. B.—The Osmotic Pressure of Solutions of Cane Sugar in the Vicinity of Four Degrees Centigrade.
Griffin, N. E.—Dares and Dictys.
Grove, C. C.—I. The Syzygetic Pencil of Cubics with a New Geometrical Development of its Hesse Group G 216. II. The Complete Pappus Hexagon.
Hoffman, E. J.—I. The Osmotic Pressure of Cane Sugar Solutions. II. The Semipermeable Membrane of Copper.
Holland, W. W.—The Osmotic Pressure of Cane Sugar Solutions in the Vicinity of the Freezing Point of Water.
Holmes, H. N.—Electric Osmose.
Hopkins, B. S.—The Osmotic Pressure of Glucose Solutions and the Freezing Point Depressions and Densities of Solutions of Glucose and Cane Sugar; also Some Experiments on the Osmotic Pressure of Urea Solutions.
Hyde, E. P.—Talbot’s Law as Applied to the Rotating Sected Disk.
Kennon, W. L.—I. Osmotic Pressure of Solutions of Cane Sugar. II. A Study of Zinc Ferrocyanide as a Semi-Permeable Membrane for the Measurement of Osmotic Pressure.
Kern, A. A.—The Ancestry of Chaucer.
Lancaster, H. C.—The French Tragi-Comedy; Its Origin and Development from 1552 to 1628.
Leutner, W. G.—The Article in Theocritus.
Lovelace, B. F.—The Osmotic Pressure of Glucose Solutions.
McMaster, L.—The Conductivity and Viscosity of Solutions of Certain Salts in Water, Methyl Alcohol, Ethyl Alcohol, Acetone, and Binary Mixtures of these Solvents.
Mood, J. R.—Some Figurative Usages of Venire and Ire.
Pfunde, W. T.—The Bourgeois from Molière to Beaumarchais.
Phillips, H. B.—Some Invariants and Covariants of Ternary Collineations.
Rogers, F. M.—I. The Osmotic Pressure of Glucose Solutions in the Vicinity of the Freezing Point of Water. II. The Use of Weight-Normal Solutions in the Measurement of Osmotic Pressure.
Rouiller, C. A.—The Relative Migration Velocities of the Ions of Silver Nitrate in Water, Methyl Alcohol, Ethyl Alcohol, and Acetone, and in Binary Mixtures of these Solvents together with the Conductivity of such Solutions.
Schultz, W. H.—The Effect of Chloralhydrate upon the Properties of Heart-Muscle.
Shear, T. L.—The Influence of Plato on Saint Basil.
Sigerfoos, C. P.—The Natural History, Organization and Late Development of the Teredinidae.
Wagstaff, H. M.—State Rights and Political Parties in North Carolina, 1776-1861.
West, H. S.—The Versification of King Horn.

1907, September 1.

N. Murray.
ABSTRACT OF THE REPORT OF THE LIBRARIAN

The number of bound volumes in the library is 134,151; the accessions during the year amounted to 5,795. This enumeration includes books bound in cloth, leather or boards, and accessioned and carded. The number of pamphlets and unbound volumes received exceeded 6,000. The number of pamphlets in the library is estimated at 135,000. About 2,000 serials are regularly received.

Among the important gifts during the year are:

From Mr. William A. Marburg, the Warrington Dispensary Library of medical classics, 945 volumes. A special report upon this collection has been published in the Johns Hopkins Hospital Bulletin, April, 1907. To this collection 28 volumes were added by the Royal College of Physicians of London, and 4 by its librarian, Dr. Joseph F. Payne.

From Mr. A. G. Hutzler, the sum of $500 (his fourth gift) for the purchase of classical works in economics.

From Dr. E. R. L. Gould, about 750 books and pamphlets in economics and politics.

From Professor Cleveland Abbe, a large number of books and pamphlets for the Abbe Meteorological Library, including his valuable personal library. This collection also contains works in physics, astronomy, etc.

From Mr. William H. Buckler, 58 volumes in economics, including many volumes dealing with railroad rates; a copy of the editio princeps of Descartes, Discours de la Méthode, Leyden, 1637; and 76 miscellaneous volumes.

From the Norwegian North Polar Expedition, the continuations of its publications by Nansen.

From the Italian Minister of Public Instruction, the continuations of the official series of Galileo's works.

From Henry Holt & Co., their current publications for the year.

From Mrs. M. A. Beckwith, a file of the Havana papers during the recent insurrection in Cuba.

From Dr. E. A. Andrews, a number offolio volumes and a large collection of pamphlets in biology.

From Dr. William Osler, his Aequanimitas, second edition; his Harvelian Oration, 1906; Harvey, De motu cordis, editio princeps (1628); and other works.

From the University of Aberdeen, its quarter-centennial publications.

From Mr. James Page of the United States Hydrographic Office, volumes of 11 serials to complete sets in the Abbe Meteorological Library and 65 pamphlets on ocean meteorology.

From a friend of the University, another year's subscription—$90.00—to the International Catalogue of Scientific Literature.

From a friend of the University, through Professor Hollander, a copy of Tooke and Newmarch's History of Prices.
From the American Philosophical Society, the Franklin medal, struck on the occasion of the commemorative exercises in Philadelphia.

Works dealing with the questions of labor and capital have been purchased, as for several years back, from the fund provided by a donor who withholds his name.

Mr. George A. von Lingen continued to present the publications of German geological surveys.

From the labor bureaus of several states, a large number of official labor statistics to complete our sets.

We have also received about 500 volumes purchased from the Hutzler and Epstein gifts, acknowledged in the previous year.

Important gifts have been received from President Gilman, President Remsen, Professor Gildersleeve, Professor Ames, Professor Mail, Professor Vincent, and Professor Williams.

A list of gifts is appended to this report.

Special acknowledgment should be made of the many courtesies received from the Librarian of Congress. The libraries and scholars of the country should recognize the great service that is being rendered to them by the present liberal and intelligent administration of the Library of Congress.

The usual exchanges have been received and placed in the library.

The books purchased have been devoted generally to the work of the courses in progress.

Important additions have been made to our collections in Medicine, Classical Archaeology, History and Political Science, Economics, and English Literature, as well as in other departments.

Tablets commemorating the gifts to the library of Abram G. Hutzler, William H. Wehrhane, Herbert B. Adams, William Keyser, George A. von Lingen, Bernard N. Baker, and Jesse Tyson, have been placed in the general reading room in McCoy Hall.

Additional library cases have been constructed in the library of the biological department; a large case for the archaeological photographs has been added to the equipment of the classical library; library cases have also been added to the modern language library, to the seminary library of philosophy and psychology (for the Royce collection), to the economic library, and in the corridors adjoining the general reading room.

The administrative staff of the library consists of Dr. M. L. Raney, assistant librarian, and Mr. August Munzner, assistant to the librarian.

The general reading room has been in charge of Miss Frieda C. Thies.

The classical library has been in charge of Dr. C. W. E. Miller, under the supervision of Professor Gildersleeve.

The modern language library has been in charge of Dr. Keidel, under the supervision of Professors Wood and Elliott.

The English library has been under the direction of Professor Bright.

The historical collection has been in charge of Miss Daran, under the direction of Professor Vincent.
The chemical library has been in charge of Professor H.C. Jones.
The biological library has been under the direction of Professor
Brooks and Dr. Andrews, with a library attendant.
The geological library has been in charge of Professor
Mathews.
The astronomical library has been in charge of Dr. Hulburt.
The physical and mathematical collections have been under
the supervision of Professor Ames.
The library of philosophy and psychology has been in charge
of Professor Baldwin.
The medical library has been under the direction of Professor
Howell and a special committee, with a library attendant in
charge.
During the year, the New Book Department has received about
1,500 volumes. Since the opening of the department, about
128,000 volumes of the estimated value of $186,000 have been
received for inspection.

N. Murray,
Librarian.

September 1, 1907.
GIFTS TO THE LIBRARY

(See also Report of the Librarian.)

ABBE, CLEVELAND. (See Report of Librarian).
ABBOTT, C. C. (Author.) Archaeologia Nova Caesarea. Trenton, 1907. O.
Cambridge, 1907. O.
ABEL, J. J. Four volumes in chemistry and therapeutics.
ABELL, A. S., Co. The Sun Almanac for 1907. D.
ABERDEEN, PUBLICATION COMMITTEE OF THE QUARTERCENTENARY OF THE
ADAMS, C. F. (Author.) Lee's Centennial: An Address. Boston, 1907. O.
AIX, UNIVERSITY OF. Academic publications for the year.
ALABAMA GEOLOGICAL SURVEY. Smith, E. A., The Underground Water
Resources of Alabama. Montgomery, 1907. O.
ALBEE, J. (Author.) Charles Brooks and his Work for Normal Schools.
Medford, 1907. O.
AMERICAN LUMBERMAN, American Lumbermen. Third Series. Chicago,
1906. Q.
AMERICAN MUSEUM OF NATURAL HISTORY. Memoirs, etc. 7 vols.
AMERICAN PHILOSOPHICAL SOCIETY. Record of the Celebration of the
Two Hundredth Anniversary of the Birth of Benjamin Franklin.
Philadelphia, 1906. Q.
AMES, J. S. Twelve volumes and forty-three pamphlets in physics.
ANDREWS, E. A. (See Report of Librarian.)
ARBETSBÖJELSENS ABKIT. Fifty-one pamphlets, mainly on the Labor
Question.
ARMSTRONG, G. B. The Beginnings of the True Railway Mail Service.
1906. O.
BALCH, E. S. (Author.) Comparative Art. Philadelphia, 1906. Q.
BALCH, T. W. (Author.) Balch Genealogica. Philadelphia, 1907. Q.
BALDWIN, J. M. (Author.) Interpretaciones Sociales y Eticas del Desen-
valimiento Mental; trad. de Adolfo Posada y G. J. de La Espada.
Madrid, 1907. O.
Mental Development in the Child and the Race. New York, 1906. O.
Social and Ethical Interpretations in Mental Development. New York,
1906. O.
BARNETT, G. E. Six miscellaneous publications.
BASEL, UNIVERSITY OF. Academic publications for the year.
BASKINGBOUTH, FRANCIS. (Author.) Ballistic Experiments. Cambridge,
1907. O.
BECKWITH, MISS MARY E. (See Report of Librarian.)
BELGIUM ROYAL OBSERVATORY. Expédition Antarctique Belge. 1906. 4
vols. F.
ANNEXES de l'Observatoire Royal. 1906-07. 3 vols. F.
BENNEVILLE, J. S. DR. (Author.) Sakurambo. 1906. O.
BÉGER, E. W. (Author.) Three of his recent publications.
BERLIN, ROYAL LIBRARY. Jahresbericht, etc. 1905-06.
BERLIN, TECHNISCHE HOCHSCHULE. Academic publications for the year.
105.
BERLIN, UNIVERSITY OF. Academic publications for the year.
BERNICE PAGAN BISHOP MUSEUM. Publications for the year.
BESANÇON, UNIVERSITY OF. Academic publications for the year.
BEWLEY, (Sir) EDMUND T. (Author.) Origin and Early History of the
Family of Poe or Poe. Dublin, 1906. Q.
BODLEIAN LIBRARY. Anecdotæ Oxoniensia. Semitic Series. Part XI.
Oxford, 1906. O. Four other publications.
BONN, UNIVERSITY OF. Academic publications for the year.
BOGRAEM, J. V. V. (Author.) Internal Energy. New York, 1906. O.
BORDEAUX, UNIVERSITY OF. Academic publications for the year.
BRESAL, MICHEL. (Author.) Pour mieux connaître Homère. Paris. O.
BROOKS, W. K. Five miscellaneous publications.
BROWN, LESTER D. (Author.) A Study of the Case Construction of
Words of Time. New Haven, 1904. O.
BROWN UNIVERSITY. Historical Catalogue, 1764-1904. Providence, 1905.
Q. Other academic publications.
BROWNNE, WILLIAM HAND. Hughes, T., History of the Society of Jesus in
North America. Vol. I. Cleveland, 1907. Q.
BRYANT, W. S. (Author.) Thirteen recent publications.
BUCKLER, WILLIAM H. (See Report of Librarian.)
BUENOS AIRES, STATISTIQUE MUNICIPALE. Annuaire Statistique. Buenos
Aires, 1906. Q.
CAEN, UNIVERSITY OF. Academic publications for the year.
CALHOUN, N. M. (Author.) Litchfield County Sketches. 1906. O.
CALIFORNIA, UNIVERSITY OF. Academic publications for the year.
CAPRONI, P. P., AND BROTHER. Taft, L., Talks on Sculpture. Boston,
1906. O.
CARNEGIE, ANDREW. Alexander, L. H., James Wilson, Patriot, and the
Wilson Doctrine. O.
CARNEGIE INSTITUTION. (Washington.) Publications for the year.
IV. Philadelphia, 1841. Q.
CASPARIAN, GREGORY. (Author.) An Anglo-American Alliance. 1906. D.
CENTURY COMPANY. Fairlie, J. A., Local Government In Counties, Towns,
and Villages. New York, 1906. O.
CHICAGO, UNIVERSITY OF. Academic publications for the year.
CHILE, UNIVERSITY OF. Academic publications for the year.
CLERMONT-FERRAND, UNIVERSITY OF. Academic publications for the year.
COBLENTZ, W. W. (Author.) Six recent publications.
COHEN, S. S. (Author.) Two of his recent publications.
COLUMBIA UNIVERSITY. Academic publications for the year.
COMITATO PER LE ONORANTE A FRANCESCO BRIOSCHI. Briosi, F., Opere
matematiche. Tomo quarto. Milan, 1906. Q.
COTARDE, F. J. B. (Author.) The Gyroscope. Worcester. O.
CORNELL UNIVERSITY. Academic publications for the year.
COUTTS, JOHN. (Author.) The Divine Wisdom. London, 1907. D.
DAISH, J. B. (Author.) The Cost of Carriage. Washington, 1907. O.
The Cost of Transportation. Elizabeth, 1907. O.
DAVES, J. C. North Carolina Society of the Cincinnati. 1906. Q.
Dexter, Henry. (Author.) Letters from the Pen of Henry Dexter.
1906. O.
Dijon, UNIVERSITY OF. Academic publications for the year.
ELBASS-LOHTRINGEN GELOGISCHE LANDES-UNTERSUCHUNG. Publications.
1906. Q.
Gifts to the Library

ERLANGEN, UNIVERSITY OF. Academic publications for the year.
EVE, JOHN O. (Author.) Die Staatsumwälzung in Dänemark im Jahre 1660. Leipzig, 1905. O.
EWART, W. (Author.) Four of his recent publications.
EwerP, P. (Author.) Three recent publications.
FISCHER, H. (Author.) Three of his recent publications.
FORD, M. N. International Conference on Aerial Navigation. New York, 1894. O.
FRANKLIN, MRS. FABIAN. Helmholtz, H., Handbuch der physiologischen Optik. Leipzig, 1867. O.
FRASCARA, A. (Author.) Dell' Ufficio e della Necessita degli Studi Matematici. Genoa, 1905. S.
FRAZER, P. (Author.) Search for the Causes of Injuries to Vegetation, etc. 1907. O.
FREIBURG, UNIVERSITY OF. Academic publications for the year.
FRIEDENBURG, A. M. (Author.) The Jew in German Literature. Philadelphia, 1907. O.
FRIES, MISS A. L. (Author.) Mecklenburg Declaration of Independence. Raleigh, 1907. O.
GAIUL, MISS CECILIA. Fourteen miscellaneous volumes.
GIEN, UNIVERSITY OF. Academic publications for the year.
GILDERSEE, B. L. A large number of books and pamphlets, mainly in classical subjects.
GILMAN, PRESIDENT D. C. A large number of books and pamphlets.
GLASGOW MEDICO-CHIRURGICAL SOCIETY. Transactions, Glasgow, 1897-1906. 6 vols. O.
GOODFRIEND BROTHERS. Four views of the Goodfriend opal.
GOODWIN, A. B. (Author.) The Human and Divine Nature of Christ. Savannah, 1907. O.
GÖTTINGEN, UNIVERSITY OF. Academic publications for the year.
GÖTTINGER VEREINJUNG. Die Physikalischen Institute der Universität Göttingen. Leipzig, 1906. O.
GOULD, E. R. L. A large and interesting collection of books and pamphlets, about 750 in number, specially relating to economics and politics.
GRANT, U. S. (Author.) Two of his recent publications.
GRIFFINWALD, UNIVERSITY OF. Academic publications for the year.
GREEN, UNIVERSITY OF. Academic publications for the year.
GUY'S HOSPITAL. Reports. Vol 60. London, 1906. O.
HAFERINE, W. M. (Author.) Two of his recent publications.
HALLE, UNIVERSITY OF. Academic publications for the year.
HAMMERSLY & CO. Who's Who in New York and City and State.
HARVARD COLLEGE LIBRARY. Academic publications for the year.
HARVARD COLLEGE, MUSEUM OF COMPARATIVE ZOOLOGY. Publications for the year.
HARVARD COLLEGE OBSERVATORY. Publications for the year.
HARVARD MEDICAL SCHOOL. The Harvard Medical School, 1782-1906. Boston, 1906. Q.

HAZELTON, J. H. (Author.) Historical Value of Trumbull's "Declaration of Independence." 1907. O.

HEIDELBERG, UNIVERSITY OF. Academic publications for the year.


HENRIKSEN, G. (Author.) Sundry Geological Problems. Christiania, 1908. O.

HERMS, W. B. (Author.) Two of his recent publications.

HOLLANDER, J. H. A number of recent publications, principally in economics.

HOLT, HENRY, & Co. Their publications for the year.


HOWELL, W. H. Loeb, J., Comparative Physiology of the Brain, etc. New York, 1900. O.


INDIA, DIRECTOR-GENERAL OF EDUCATION. Reports. Calcutta, 1906. Q.


ITALY, MINISTER OF FOREIGN AFFAIRS. A number of important publications relating to international treaties and conventions.

ITALY, MINISTER OF PUBLIC INSTRUCTION. Le opere di Galileo Galilei. Vols. XVII and XVIII. Florence, 1908. 2 vols. Q.

JAMAICA, DIRECTOR OF PUBLIC GARDENS. Publications for the year.

JAPAN, BUREAU OF MEDICAL AFFAIRS. Report of the Health of the Imperial Navy. Tokyo, 1907. O.

JAPAN, CONSULATE GENERAL. Report on War Finance. 1906. O.

JENA, UNIVERSITY OF. Academic publications for the year.


JONES, H. C. A number of chemical publications.


KARLSRUHE, UNIVERSITY OF. Academic publications for the year.

KNOX, G. W. (Author.) The Development of Religion in Japan. New York, 1907. O.

KODAIKANAL AND MADRAS OBSERVATORIES. Publications for the year.

KÖNIGSBERG, UNIVERSITY OF. Academic publications for the year.

LAKE FOREST COLLEGE. Bross Lectures for 1905-06. 2 vols. D. and O.


LAVAL, UNIVERSITY OF. Academic publications for the year.

LEIPZIG, UNIVERSITY OF. Academic publications for the year.

LEITLS, T. (Author.) Maps: Handling, Classifying, Cataloguing. New York, 1907. O.

LEIDEN, UNIVERSITY OF. Academic publications for the year.

LIBRARY OF CONGRESS. A large number of valuable publications.

LILLE, UNIVERSITY OF. Academic publications for the year.
Gifts to the Library


LONDON CLINICAL SOCIETY. Publications for the year. LONDON, INSTITUT INTERNATIONAL DE STATISTIQUE. Publications for the year.

LORAN, LE DUC DE. Codex Borgian. II. Berlín, 1906. F.

De Jonghe, E., Le Calendrier Mexicain. 1906. Q.

LOUVAIN, UNIVERSITY OF. Academic publications for the year.

LOVEJOY, MRS. P. R. Two works on vocal culture.

LUND, UNIVERSITY OF. Academic publications for the year.

LYONS, UNIVERSITY OF. Academic publications for the year.

MACMILLAN COMPANY. (New York.) A number of their recent publications.

MADRID, ASTRONOMICAL OBSERVATORY. Anuario para 1907. Madrid, 1906. D.

MALL, F. P. A large number of publications, principally in anatomy.

MANCHESTER, UNIVERSITY OF. Academic publications for the year.

MANCINI, D. (Translator.) Dal Canzoniere di Bérenger. Turin, 1907. Q.

MARBURG, W. A. (See Report of Librarian.)

MARE, B. (Author.) Altjüdische Sprache, Metrik und Lunartheosophie. Teil I. Dux, 1907. O.

MARVIN, F. R. (Author.) Three of his recent publications.


MASON, L. D. (Author.) Psychic Treatment of Inebriety. Chicago, 1907. O.


MATTHEWS, J. (Author.) Hints for Tracing an Anglo-American Pedigree in the Old Country. London. D.


MEEK, E. D. (Author.) The Limitation of Armaments. Boston, 1907. O.


MERRILL, S. A. (Author.) Man's Place in the Kosmos. N. Y., 1906. D.


MEXICO, SECRETARY OF FOREIGN RELATIONS. Official Bulletins for the year.

MICHIGAN, UNIVERSITY OF. Academic publications for the year.

MIDDLESEX HOSPITAL. (London.) Archives. London, 1905-06. 2 vols. O.

MITCHELL, S. WEB. (Translator.) Pearl, rendered into Modern English Verse. N. Y., 1906. O.

(Author.) Some Memoranda in Regard to W. M. Harvey, M. D. N. Y., 1907. O.

MONACO, PRINCE ALBERT I OF. Publications of the Musée Oceanographique de Monaco. 1906-07.

MONTGOMERY, H. (Author.) Remains of Prehistoric Man in the Dakotas. 1906. O.

MONTPELLIER, UNIVERSITY OF. Academic publications for the year.

MORCHOWETZ, L. Das Globulin der Coagulibaren Substanz des Blutes. MORMISON, A. J. (Author.) Halifax County, Virginia. Richmond, 1907. 0.

MOTT, F. W. (Author.) Two of his recent publications.

MUNICH, UNIVERSITY OF. Academic publications for the year.

NABUCO, J. (Author.) Three of his recent publications.

NAPLES, UNIVERSITY OF. Academic publications for the year.

NATIONAL EDUCATION ASSOCIATION. Index to the Publications of the Association for its first 50 years. 1907. 0.

NEDERLANDSCH TIDSSCHRIFT VOOR GENEVERKUNDE. Opuscula Selecta Nederlandorum de Arte Medica. Fasc. I. Amsterdam, 1907. 4.

NEW JERSEY HISTORICAL SOCIETY. Proceedings and Collections. Thirteen numbers and parts. 0.

NEW YORK DEPARTMENT OF HEALTH. Five of its recent publications.

NEW YORK STATE LIBRARY. Publications of the New York State Museum and other publications of the State of New York.


NOBLE, CHARLES P. (Author.) Five of his recent publications.


PAGE, JAMES. A large number of books and pamphlets for the Abbe Meteorological Library.

PARIS, UNIVERSITY OF. Academic publications for the year.


PENHALLOW, D. P. (Author.) Two of his recent publications.

PENNSYLVANIA STATE LIBRARY. Official publications of the State for the year.

PENNSYLVANIA, UNIVERSITY OF. Academic publications for the year.

PHILLIPS, J. B. (Author.) Four of his recent publications.

POITIERS, UNIVERSITY OF. Academic publications for the year.


PRAG, UNIVERSITY OF. Academic publications for the year.

PRINCETON UNIVERSITY. Academic publications for the year.


RAIT, R. S. (Author.) The Kings Quair. Aberdeen, 1898. 0.


REED, T. E. (Author.) The Sex Cycle of the Germ Plasm. 1907. 0.

RESEN, A. M. (Author.) Reactions of Cryptbranchus etc. 1908. 0.

REMSEN, I. A large number of books and pamphlets, mainly in chemistry.
Gifts to the Library

Rennes, University of. Academic publications for the year.


Rheff, R. G. (Mayor of Charleston.) Year Books. Charleston, 1906-1907. O.

Rhode Island State Library. Official publications of the State. 1905-1906.


Robertson, C. M. (Author.) Five medical pamphlets.


Rodeffer, J. D. (Author.) A Pioneer in International Arbitration. Sewanee, 1907. O.

Rohengarten, J. G. (Author.) Biographical Notice of Albert Henry Smyth. 1907. O.

Early French Members of the American Philosophical Society. 1907. O.


St. Andrews, University of. Academic publications for the year.

St. Joseph's Seminary. (Baltimore.) S. Thomae Aquinatis Summa theologica. Ed. quinta. N. p. 1868. 8 v. in 4. O.


Schindler, R. (Author.) Zur Sonnenfrage. Luzerne, 1907. O.

Zur Mechanik der Gestirne. Luzerne, 1907. O.


Segarra, José and Julia J. (Authors.) Excurción por América, Costa Rica. San José, 1907. O.

Shamel, G. H. (Author.) Geological Relations of Ore Deposits, etc. N. Y., 1907. Q.


Slatterly, J. R. Nine volumes in Semitic literature.

Slemons, J. M. Hempel, W., Methods of Gas Analysis, translated by L. M. Dennis. N. Y., 1906. D.

Smith, John D. (Author.) Enumeratio Plantarum Guatemalensium. Pars VIII. Index. Oawmke, 1907. O.


Stekier, Walter R. Thirty-nine volumes of chemical works.

Strassburg, University of. Academic publications for the year.


Swindell, J. H. (Author.) The Mean Distance of the Sun from the Earth. Valdosta, 1906. D.

Texas, University of. Academic publications for the year.


Zinc Resources of British Columbia, etc. Ottawa, 1906. Q.
JOHNS HOPKINS UNIVERSITY CIRCULAR

TOKYO, IMPERIAL EARTHQUAKE INVESTIGATION COMMITTEE. Publications for the year.

TOULOUSE, OBSERVATORY OF. Catalogue Photographique du Ciel, tome VII. Paris, 1906. F.

TOULOUSE, UNIVERSITY OF. Academic publications for the year.

TUBINGEN, UNIVERSITY OF. Academic publications for the year.

TUTIN, J. R. Smart, C., A Song to David. S.

UPSALA UNIVERSITY. Academic publications for the year.

URUGUAY, REPUBLIC OF. (Through Prudenciode Murgulondo, Consul General at Baltimore.) A large number of official publications.

UTRECHT, UNIVERSITY OF. Academic publications for the year.

VERMONT HISTORICAL SOCIETY. Proceedings, 1905-06.

VINCENT, J. M. Six historical publications.


WALKER, E. E. (Author.) Two recent publications.

WEAVER, JOHN. (Mayor of Philadelphia.) Third Annual Message. Philadelphia., 1906. 3 vols. O.

WEBER, S. E. (Author.) Polygenesis in the Eggs of the Culicidae. O.

WELLCOME RESEARCH LABORATORIES. Reports and publications. Q.

WILLCOX, O. W. (Author.) The Viscous vs. the Granular Theory of Glacial Motion. Long Branch, 1906. O.

WILLIAMS, J. W. Ergebnisse der Pathologie. 10 vols., and Registerband.

WISCONSIN, UNIVERSITY OF. Academic publications for the year.

WÜRZBURG, UNIVERSITY OF. Academic publications for the year.

YALE UNIVERSITY. Academic publications for the year.

Reports and current publications have been received from the societies and institutions named below. The list does not cover reports, catalogues, and other publications received in regular exchange.

American Bar Association; American Board of Commissioners for Foreign Missions; American Climatological Association; American Gastro-Enterological Association; American Hospital Association; American Institute of Banking; American Institute of Electrical Engineers; American Institute of Mining Engineers; American-Irish Historical Society; American Laryngological Association; American Laryngological Society; American Numismatic and Archaeological Society; American Peace Society; American Scenic and Historic Preservation Society; Association of Collegiate Alumni; Baltimore, Mercantile Library; Baltimore Chamber of Commerce; Boston, Board of Overseers of the Poor; Boston, City Auditor; Boston, City Registry Department; Boston, Metropolitan Water and Sewage Board; Boston, Museum of Fine Arts; Boston, Port and Seamen's Aid Society; Boston, Public Library; Boston, Society of Natural History; Boston, Statistics Department; British Association for the Advancement of Science; Bryn Mawr College; Buffalo Public Library; Calcutta, Director General of Archaeology; California Bureau of Labor Statistics; Cambridge (Mass.), City Clerk; Cambridge, Public Library; Canada, Geological Survey; Canada, Library of Parliament; Canada, Minister of Agriculture; Canada, Royal Society of; Carnegie Foundation for the Advancement of Teaching; Carnegie Library (Pittsburgh); Carnegie Museum (Pittsburgh); Catholic University of America; Central Conference of American Rabbis; Chicago, Bureau of Statistics; Chicago, Public Library; Cincinnati, Chamber of Commerce; Cincinnati, Museum Association; Cincinnati, Public
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Library; Cleveland, City Water Department; Colorado, Bureau of Labor Statistics; Colorado Fuel and Iron Co.; Columbus, Public Library; Connecticut, Bureau of Labor Statistics; Davenport, Academy of Sciences; Dayton, Public Library; Delft, High School; Enoch Pratt Free Library; Essex Institute; Federation of American Zionists; Frankfort-on-the-Main, Municipal Library; Friends' Free Library (Germantown); Grand Rapids, Public Library; Hamburg, Mathematische Gesellschaft; Hamburg, Medizinalamt; Hamburg, Stadtbibliothek; Harvard University; Haverhill, Public Library; Hawaiian Evangelical Association; Idaho, Bureau of Immigration; Illinois, Bureau of Labor Statistics; Illinois, State Geological Survey; Illinois, State Historical Library; Illinois, State Historical Society; Indiana Rights Association; Indiana, Department of Statistics; Indiana, State Medical Association; International Textbook Co.; Iowa, Board of Control of State Institutions; Iowa, Bureau of Labor Statistics; Iowa, Executive Council; Ireland, Royal Academy of Medicine; Jewish Hospital Association; John Crerar Library; Kansas, State Board of Agriculture; Kansas, State Historical Society; Lake Mohonk Conference; Los Angeles, Public Library; Louisville, Public Library; Maine, Bureau of Labor Statistics; Maine, Educational Department; Maryland, Bureau of Statistics; Maryland, Horticultural Society; Massachusetts, Agricultural Experiment Station; Massachusetts, Board of Education; Massachusetts, Board of Gas and Electric Light Commissioners; Massachusetts, Bureau of Statistics of Labor; Massachusetts, Commissioner of Public Records; Massachusetts, Railroad Commission; Massachusetts, State Board of Charity; Massachusetts, State Board of Health; Medville Theological School; Metropolitan Museum of Art; Michigan, Department of Public Instruction; Michigan, State Bureau of Labor; Milwaukee, City Service Commissioners; Milwaukee, Public Museum; Missouri, Botanical Garden; National Association of Manufacturers; National Association of Pension Surgeons; National Association of Stationary Engineers; National Civil Service Reform League; National Prison Association; National Slavonic Society; Nebraska, Bureau of Labor; New England Society; New Hampshire, State Library; New Haven Colony Historical Society; New Jersey, Bureau of Statistics; New Jersey, Geological Survey; New South Wales, Department of Mines; New South Wales, Government of; New South Wales, Public Library; New York, Board of Charity Underwriters; New York, Chamber of Commerce; New York City, Board of Education; New York, City Chamberlain; New York, City Comptroller; New York City, Department of Parks; New York City, Police Commissioner; New York City, Tenement House Department; New York City, Visiting Committee; New York, Civil Service Reform League; New York, Factory Inspectors; New York, General Society of Mechanics; New York, Historical Society; New York, Mercantile Library; New York, Merchants' Association; New York, State Charities Aid Association; New York, State Department of Labor; New Zealand, Geological Survey; New Zealand, Government of New Zealand, Minister of Education; Newark, Public Library; Newberry Library; Newton, Free Library; Niagara Falls, Public Library; North Carolina, Bureau of Labor; North Carolina, Department of Education; North Carolina, State Library; Oberlin College Library; Ohio, Geological Survey; Ohio, Historical and Philosophical Society; Ontario, Department of Agriculture; Ontario, Registrar General; Oregon, Bureau of Labor Statistics; Osaka Library (Japan); Pasadena, Board of Education; Pennsylvania Prison Society; Perkins Institution for the Blind; Philadelphia, City Comptroller; Philadelphia, Hospital; Philadelphia, Teachers' Asso-
The University is indebted, as in previous years, for many and valuable gifts from the Government Departments at Washington.