

PROCEEDINGS

OF

The American Association

FOR THE

Advancement of Science

FIFTY-NINTH, SIXTIETH AND SIXTY-FIRST MEETINGS

HELD AT

HANOVER, N. H., JUNE 29 TO JULY 3, 1908,
(Special Summer Meeting)

BALTIMORE, MD., DECEMBER 28, 1908,
TO JANUARY 2, 1909,

AND

BOSTON, MASS., DECEMBER 27, 1909,
TO JANUARY 1, 1910.

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2d	April 5, 1841,	Philadelphia,	Benj. Silliman,*	L. C. Beck,*		
3d	April 25, 1842,	Boston,	S. G. Morton,*	C. T. Jackson,*		
4th	April 26, 1843,	Albany,	Henry D. Rogers,*	B. Silliman, Jr.,*		Douglas Houghton.*
5th	May 8, 1844,	Washington,	John Locke,*	{ B. Silliman, Jr.,* O. P. Hubbard,*		
6th	April 30, 1845,	New Haven,	Wm B. Rogers,*	{ B. Silliman, Jr.,* J. Law. Smith,*		Douglas Houghton.*
7th	Sept. 2, 1846,	New York,	C. T. Jackson,*	B. Silliman, Jr.,*		E. C. Herrick.*
8th	Sept. 20, 1847,	Boston,	Wm. B. Rogers,*†	Jeffries Wyman,*		B. Silliman, Jr.*

* Deceased.

† Professor Rogers, as chairman of this last meeting, called the first meeting of the new Association to order and presided until it was fully organized by the adoption of a constitution. As he was thus the first presiding officer of the new Association, it was directed at the Hartford meeting that his name be placed at the head of the Past Presidents of the American Association for the Advancement of Science.

Meetings.	Place.	Date.	Members in attendance.	Number of members.
1	Philadelphia	Sept. 20, 1848	?	461
2	Cambridge	Aug. 14, 1849	?	540
3	Charleston	Mar. 12, 1850	?	622
4	New Haven	Aug. 19, 1850	?	704
5	Cincinnati	May 5, 1851	87	800
6	Albany	Aug. 19, 1851	194	769
7	Cleveland	July 28, 1853	?	940
8	Washington	April 26, 1854	168	1004
9	Providence	Aug. 15, 1855	166	605
10	2nd Albany	Aug. 20, 1856	381	722
11	Montreal	Aug. 12, 1857	351	946
12	Baltimore	April 28, 1858	190	962
13	Springfield	Aug. 3, 1859	190	862
14	Newport	Aug. 1, 1860	135	641
15	Buffalo	Aug. 15, 1866	79	637
16	Burlington	Aug. 21, 1867	73	415
17	Chicago	Aug. 5, 1868	259	686
18	Salem	Aug. 18, 1869	214	511
19	Troy	Aug. 17, 1870	188	536
20	Indianapolis	Aug. 16, 1871	196	668
21	Dubuque	Aug. 15, 1872	164	610
22	Portland	Aug. 20, 1873	195	670
23	Hartford	Aug. 12, 1874	224	722
24	Detroit	Aug. 11, 1875	165	807
25	2d Buffalo	Aug. 23, 1876	215	867
26	Nashville	Aug. 29, 1877	173	953
27	St. Louis	Aug. 21, 1878	134	962
28	Saratoga	Aug. 27, 1879	256	1030
29	Boston	Aug. 25, 1880	997	1555
30	2d Cincinnati	Aug. 17, 1881	500	1699
31	2d Montreal	Aug. 23, 1882	937	1922
32	Minneapolis	Aug. 15, 1883	328	2033
33	2d Philadelphia	Sept. 3, 1884	1261*	1981
34	Ann Arbor	Aug. 26, 1885	364	1956
35	3d Buffalo	Aug. 18, 1886	445	1886
36	New York	Aug. 10, 1887	729	1956
37	2d Cleveland	Aug. 14, 1888	342	1964
38	Toronto	Aug. 26, 1889	424	1952
39	2d Indianapolis	Aug. 19, 1890	364	1944
40	2d Washington	Aug. 19, 1891	653†	2054
41	Rochester	Aug. 17, 1892	456	2037
42	Madison	Aug. 17, 1893	290	1939
43	Brooklyn	Aug. 15, 1894	488	1802
44	2d Springfield	Aug. 28, 1895	368	1913
45	4th Buffalo	Aug. 24, 1896	333	1890
46	2d Detroit	Aug. 9, 1897	283‡	1782
47	2d Boston	Aug. 22, 1898	903	1729
48	Columbus	Aug. 21, 1899	353	1721
49	2d New York	June 25, 1900	434	1925
50	Denver	Aug. 21, 1901	311	2703
51	Pittsburg	June 28 to July 3, 1902	435	3473
52	3d Washington	Dec. 27, 1902, to Jan. 2, 1903	975	3596
53	2d St. Louis	Dec. 28, 1903, to Jan. 2, 1904	385	4075
54	3d Philadelphia	Dec. 27-31, 1904	890	4175
55	New Orleans	Dec. 28, 1905, to Jan. 2, 1906	233	4357
56	Ithaca	June 28 to July 3, 1906	232	4425
57	3d New York	Dec. 27, 1906, to Jan. 2, 1907	924	4498
58	2d Chicago	Dec. 30, 1907, to Jan. 4, 1908	725	4727
59	Hanover	June 29 to July 3, 1908	125	6072
60	2d Baltimore	Dec. 28, 1908, to Jan. 2, 1909	1088	6949
61	3d Boston	Dec. 27, 1909, to Jan. 1, 1910	1140	7947

* Including 303 Members of the British Association and 9 other foreign guests.

† Including 24 Foreign Honorary Members for the meeting.

‡ Including 15 Foreign Honorary Members and Associates for the meeting.

Officers of the Meetings of the Association.

[The number before the name is that of the meeting; the year of the meeting follows the name; the asterisk after a name indicates that the member is deceased.]

PRESIDENTS.

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|---|---|
| <p>1 (Wm. B. ROGERS,* 1848.
W. C. REDFIELD,* 1848.)</p> <p>2. JOSEPH HENRY,* 1849.</p> <p>3. { A. D. BACHE,* March meet-
ing, 1850, in the absence of</p> <p>4. { JOSEPH HENRY.*
August meeting, 1850.</p> <p>5. { May meeting, 1851.</p> <p>6. LOUIS AGASSIZ,* August meet-
ing, 1851.
(No meeting in 1852.)</p> <p>7. BENJAMIN PIERCE,* 1853.</p> <p>8. JAMES D. DANA,* 1854.</p> <p>9. JOHN TORREY,* 1855.</p> <p>10. JAMES HALL,* 1856.</p> <p>11. { ALEXIS CASWELL,* 1857, in
place of J. W. BAILEY,* de-
ceased. 1858, in the absence</p> <p>12. { of JEFFRIES WYMAN.*</p> <p>13. STEPHEN ALEXANDER,* 1850.</p> <p>14. ISAAC LEA,* 1860.
(No meetings for 1861-65.)</p> <p>15. F. A. P. BARNARD,* 1866.</p> <p>16. J. S. NEWBERRY,* 1867.</p> <p>17. B. A. GOULD,* 1868.</p> <p>18. J. W. FOSTER,* 1869.</p> <p>19. T. STERRY HUNT,* 1870, in the
absence of WM. CHAUVENET.*</p> <p>20. ASA GRAY,* 1871.</p> <p>21. J. LAWRENCE SMITH,* 1872.</p> <p>22. JOSEPH LOVERING,* 1873.</p> <p>23. J. L. LECONTE,* 1874.</p> <p>24. J. E. HILGARD,* 1875.</p> <p>25. WILLIAM B. ROGERS,* 1876.</p> | <p>26. SIMON NEWCOMB,* 1877.</p> <p>27. O. C. MARSH,* 1878.</p> <p>28. G. F. BARKER,* 1879</p> <p>29. LEWIS H. MORGAN,* 1880.</p> <p>30. G. J. BRUSH, 1881.</p> <p>31. J. W. DAWSON,* 1882.</p> <p>32. C. A. YOUNG,* 1883.</p> <p>33. J. P. LESLEY,* 1884.</p> <p>34. H. A. NEWTON,* 1885.</p> <p>35. EDWARD S. MORSE, 1886.</p> <p>36. S. P. LANGLEY,* 1887.</p> <p>37. J. W. POWELL,* 1888.</p> <p>38. T. C. MENDENHALL, 1889.</p> <p>39. G. LINCOLN GOODALE, 1890.</p> <p>40. ALBERT B. PRESCOTT,* 1891.</p> <p>41. JOSEPH LECONTE,* 1892.</p> <p>42. WILLIAM HARKNESS,* 1893.</p> <p>43. DANIEL G. BRINTON,* 1894.</p> <p>44. E. W. MORLEY, 1895.
EDWARD D COPE,* 1896.
THEODORE GILL, as senior
vice-president acted after the
death of Professor COPE.
WOLCOTT GIBBS,* 1897, ab-
sent. W J MCGEE, Acting
President.</p> <p>45. F. W. PUTNAM, 1898.
EDWARD ORTON,* 1899. GROVE
K. GILBERT, elected by the
General Committee, December,
1899, to fill the vacancy caused
by the death of Prof. ORTON</p> <p>46. R. S. WOODWARD, 1900.</p> <p>47. C. S. MINOT, 1901.</p> |
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OFFICERS OF THE MEETINGS OF THE ASSOCIATION.

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|-------------------------------|-----------------------------|
| 51. ASAPH HALL,* 1902. | 57. W. H. WELCH, 1906. |
| 52. IRA REMSEN, 1902. | 58. E. L. NICHOLS, 1907. |
| 53. CARROLL D. WRIGHT,* 1903. | 59. T. C. CHAMBERLIN, 1908. |
| 54. W. G. FARLOW, 1904. | 60. T. C. CHAMBERLIN, 1908. |
| 55. C. M. WOODWARD, 1905. | 61. DAVID S. JORDAN, 1909. |
| 56. W. H. WELCH, 1906. | |

VICE-PRESIDENTS.

There were no Vice-Presidents until the 11th meeting, when there was a single Vice-President for each meeting. At the 24th meeting, the Association met in Sections A and B, each presided over by a Vice-President. At the 31st meeting nine sections were organized, each with a Vice-President as its presiding officer. In 1886, Section G (Microscopy) was given up. In 1892, Section F was divided into F, Zoology; G, Botany.

1857-1874.

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|--|---|
| 11. ALEXIS CASWELL,* 1857, acted
as President. | 17. CHAS. WHITTLESEY,* 1868. |
| 12. JOHN E. HOLBROOK,* 1858, not
present. | 18. OGDEN N. ROOD,* 1869. |
| 13. EDWARD HITCHCOCK,* 1859. | 19. T. STERRY HUNT,* 1870, acted
as President. |
| 14. B. A. GOULD,* 1860. | 20. G. F. BARKER,* 1871. |
| 15. B. A. GOULD,* 1866, in the ab-
sence of R. W. GIBBES. | 21. ALEX. WINCHELL,* 1872. |
| 16. WOLCOTT GIBBS,* 1867. | 22. A. H. WORTHEN,* 1873, not
present. |
| | 23. C. S. LYMAN,* 1874. |

1875-1881.

*Section A.—Mathematics, Physics,
and Chemistry.*

24. H. A. NEWTON,* 1875.
25. C. A. YOUNG,* 1876.
26. R. H. THURSTON,* 1877, in the
absence of E. C. PICKERING.
27. R. H. THURSTON,* 1878.
28. S. P. LANGLEY,* 1879.
29. ASAPH HALL,* 1880.
30. WM. HARKNESS,* 1881, in the
absence of A. M. MAYER.*

Section B.—Natural History.

24. J. W. DAWSON,* 1875.
25. EDWARD S. MORSE, 1876.
26. O. C. MARSH,* 1877.
27. AUG. R. GROTE,* 1878.
28. J. W. POWELL,* 1879.
29. ALEX. AGASSIZ,* 1880.
30. EDWARD T. COX,* 1881, in the ab-
sence of GEORGE ENGELMANN.*

CHAIRMEN OF SUBSECTIONS, 1875-1881.

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|---|---|--|
| <i>Subsection of Chemistry.</i> | | |
| 24. S. W. JOHNSON,* 1875. | 28. E. W. MORLEY, 1879. | |
| 25. G. F. BARKER,* 1876. | 29. S. A. LATTIMORE, 1880. | |
| 26. N. T. LUPTON,* 1877. | 30. A. B. HERVEY, 1881. | |
| 27. F. W. CLARKE, 1878. | <i>Subsection of Anthropology.</i> | |
| 28. F. W. CLARKE, 1879, in the
absence of IRA REMSEN. | 24. LEWIS H. MORGAN,* 1875. | |
| 29. J. M. ORDWAY, 1880. | 25. LEWIS H. MORGAN,* 1876. | |
| 30. G. C. CALDWELL,* 1881, in the
absence of W. R. NICHOLS.* | 26. DANIEL WILSON,* 1877, not
present. | |
| <i>Subsection of Microscopy.</i> | | |
| 25. R. H. WARD, 1876. | 27. United with Section B. | |
| 26. R. H. WARD, 1877. | 28. DANIEL WILSON,* 1879. | |
| 27. R. H. WARD, 1878, in the ab-
sence of G. S. BLACKIE.* | 29. J. W. POWELL,* 1880. | |
| | 30. GARRICK MALLERY,* 1881. | |
| | <i>Subsection of Entomology.</i> | |
| | 30. J. G. MORRIS,* 1881. | |

VICE-PRESIDENTS OF SECTIONS, 1882.

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| <i>Section A.—Mathematics and
Astronomy.</i> | | |
| 31. W. A. ROGERS,* 1882, in the
absence of WM. HARKNESS.* | 48. ALEX. MACFARLANE, 1899. | |
| 32. W. A. ROGERS,* 1883. | 49. ASAPH HALL, JR., 1900. | |
| 33. H. T. EDDY, 1884. | 50. JAMES MCMAHON, 1901. | |
| 34. WM. HARKNESS,* 1885, in the
absence of J. M. VAN VLECK. | 51. G. W. HOUGH,* 1902. | |
| 35. J. W. GIBBS,* 1886. | 52. GEORGE BRUCE HALSTED, 1902. | |
| 36. J. R. EASTMAN, 1887, in place
of W. FERREL,* re-igned. | 53. O. H. TITTMANN, 1903. | |
| 37. ORMOND STONE, 1888. | 54. ALEXANDER ZIWET, 1904. | |
| 38. R. S. WOODWARD, 1889. | 55. ALEXANDER ZIWET, 1905, in the
absence of W. S. EICHEL-
BERGER. | |
| 39. S. C. CHANDLER, 1890. | 56. EDWARD KASNER, 1906. | |
| 40. E. W. HYDE, 1891. | 57. EDWARD KASNER, 1906. | |
| 41. J. R. EASTMAN, 1892. | 58. E. O. LOVETT, 1907. | |
| 42. C. L. DOOLITTLE, 1893. | 59. C. J. KEYSER, 1908. | |
| 43. { G. C. COMSTOCK, 1894.
EDGAR FRISBY, 1894. | 60. C. J. KEYSER, 1908. | |
| 44. EDGAR FRISBY, 1895, in place
of E. S. HOLDEN, resigned. | 61. E. W. BROWN, 1909. | |
| 45. ALEX. MACFARLANE, 1896, in
place of WM. E. STORY, resigned. | <i>Section B.—Physics.</i> | |
| 46. W. W. BEMAN, 1897. | 31. T. C. MENDENHALL, 1882. | |
| 47. E. E. BARNARD, 1898. | 32. H. A. ROWLAND,* 1883. | |
| | 33. J. TROWBRIDGE, 1884. | |
| | 34. S. P. LANGLEY,* 1885, in place
of C. F. BRACKETT, resigned. | |
| | 35. C. F. BRACKETT, 1886. | |
| | 36. W. A. ANTHONY,* 1887. | |

VICE-PRESIDENTS OF SECTIONS CONTINUED.

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|-------------------------------|---|
| 37. A. A. MICHELSON, 1888. | 45. W. A. NOYES, 1896. |
| 38. H. S. CARHART, 1889. | 46. W. P. MASON, 1897. |
| 39. CLEVELAND ABBE, 1890. | 47. EDGAR F. SMITH, 1898. |
| 40. F. E. NIPHER, 1891. | 48. F. P. VENABLE, 1899. |
| 41. B. F. THOMAS,* 1892. | 49. JAS. LEWIS HOWE, 1900. |
| 42. E. L. NICHOLS, 1893. | 50. JOHN H. LONG, 1901. |
| 43. WM. A. ROGERS,* 1894. | 51. H. A. WEBER, 1902. |
| 44. W. LECONTE STEVENS, 1895. | 52. CHARLES BASKERVILLE, 1902. |
| 45. CARL LEO MEES, 1896. | 53. W. D. BANCROFT, 1903. |
| 46. CARL BARUS, 1897. | 54. L. P. KINNICUTT, 1904. |
| 47. F. P. WHITMAN, 1898. | 55. L. P. KINNICUTT, 1905, in the
absence of C. F. MABERY. |
| 48. ELIHU THOMSON, 1899. | 56. CLIFFORD RICHARDSON, 1906. |
| 49. ERNEST MERRITT, 1900. | 57. CLIFFORD RICHARDSON, 1906. |
| 50. D. B. BRACE,* 1901. | 58. H. P. TALBOT, 1907. |
| 51. W. S. FRANKLIN, 1902. | 59. LOUIS KAHLBERG, 1908. |
| 52. ERNEST F. NICHOLS, 1902. | 60. LOUIS KAHLBERG, 1908. |
| 53. E. H. HALL, 1903. | 61. WM. MCPHERSON, 1909. |
| 54. WM. F. MAGIE, 1904. | |
| 55. HENRY CREW, 1905. | |
| 56. W. C. SABINE, 1906. | |
| 57. W. C. SABINE, 1906. | |
| 58. D. C. MILLER, 1907. | |
| 59. KARL E. GUTHE, 1908. | |
| 60. KARL E. GUTHE, 1908. | |
| 61. LOUIS A. BAUER, 1909. | |

*Section D.—Mechanical Science
and Engineering.**Section C.—Chemistry.*

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|---|---|
| 31. H. C. BOLTON,* 1882. | 31. W. P. TROWBRIDGE,* 1882. |
| 32. E. W. MORLEY, 1883. | 32. DEVOLSON WOOD, 1883, absent,
but place was not filled. |
| 33. J. W. LANGLEY, 1884. | 33. R. H. THURSTON,* 1884. |
| 34. N. T. LUPTON,* 1885, in the ab-
sence of W. R. NICHOLS.* | 34. J. BURKITT WEBB, 1885. |
| 35. H. W. WILEY, 1886. | 35. O. CHANUTE, 1886. |
| 36. A. B. PRESCOTT, 1887. | 36. E. B. COXE, 1887. |
| 37. C. E. MUNROE, 1888. | 37. C. J. H. WOODBURY, 1888. |
| 38. W. L. DUDLEY, 1889. | 38. JAMES E. DENTON, 1889. |
| 39. R. B. WARDER,* 1890. | 39. JAMES E. DENTON, 1890, in
place of A. BEARDSLEY, absent. |
| 40. R. C. KEDZIE,* 1891. | 40. THOMAS GRAY,* 1891. |
| 41. ALFRED SPRINGER, 1892. | 41. J. B. JOHNSON,* 1892. |
| 42. EDWARD HART, 1893. | 42. S. W. ROBINSON, 1893. |
| 43. T. H. NORTON, 1894. | 43. MANSFIELD MERRIMAN, 1894 |
| 44. WM. MCMURTRIE, 1895. | 44. WILLIAM KENT, 1895. |
| | 45. FRANK O. MARVIN, 1896. |
| | 46. JOHN GALBRAITH, 1897. |
| | 47. JOHN GALBRAITH, 1898, in the
absence of M. E. COOLEY. |
| | 48. STORM BULL,* 1899. |

VICE-PRESIDENTS OF SECTIONS, CONTINUED.

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|---|------------------------------|
| 49. JOHN A. BRASHEAR, 1900. | 54. EUGENE A. SMITH, 1904. |
| 50. H. S. JACOBY, 1901. | 55. WM. NORTH RICE, 1905. |
| 51. J. J. FLATHER, 1902. | 56. A. C. LANE, 1906. |
| 52. CLARENCE A. WALDO, 1902. | 57. A. C. LANE, 1906. |
| 53. C. M. WOODWARD, 1903. | 58. J. P. IDDIGS, 1907. |
| 54. C. M. WOODWARD, 1904, in the
absence of D. S. JACOBUS. | 59. BAILEY WILLIS, 1908. |
| 55. F. W. MCNAIR, 1905. | 60. BAILEY WILLIS, 1908. |
| 56. W. R. WARNER, 1906. | 61. REGINALD W. BROCK, 1909. |
| 57. W. R. WARNER, 1906. | |
| 58. O. H. LANDRETH, 1907. | |
| 59. GEORGE F. SWAIN, 1908. | |
| 60. GEORGE F. SWAIN, 1908. | |
| 61. JOHN F. HAYFORD, 1909. | |

*Section E.—Geology and
Geography.*

31. E. T. COX,* 1882.
32. C. H. HITCHCOCK, 1883.
33. N. H. WINCHELL, 1884.
34. EDWARD ORTON,* 1885.
35. T. C. CHAMBERLIN, 1886.
36. G. K. GILBERT, 1887.
37. GEORGE H. COOK,* 1888.
38. CHARLES A. WHITE,* 1889.
39. JOHN C. BRANNER, 1890.
40. J. J. STEVENSON, 1891.
41. H. S. WILLIAMS, 1892.
42. CHARLES D. WALCOTT, 1893.
43. SAMUEL CALVIN, 1894.
44. JED HOTCHKISS,* 1895.
45. B. K. EMERSON, 1896.
46. I. C. WHITE, 1897.
47. E. W. CLAYPOLE,* 1897.
47. H. L. FAIRCHILD, 1898.
48. J. F. WHITEAVES,* 1899.
49. J. F. KEMP, 1900.
50. C. R. VAN HISE, 1901.
51. JOSEPH A. HOLMES, 1902, in
the absence of O. A. DERBY.
52. WM. M. DAVIS, 1902.
53. I. C. RUSSELL,* 1903.

Section F.—Biology, 1882—1892

31. W. H. DALL, 1882.
32. W. J. BEAL, 1883.
33. E. D. COPE,* 1884.
34. T. J. BURRILL, 1885, in the ab-
sence of B. G. WILDER.
35. H. P. BOWDITCH, 1886.
36. W. G. FARLOW, 1887.
37. C. V. RILEY,* 1888.
38. GEORGE L. GOODALE, 1889.
39. C. S. MINOT, 1890.
40. J. M. COULTER, 1891.
41. S. H. GAGE, 1892.

Section F.—Zoology.

42. HENRY F. OSBORN, 1893.
43. J. A. LINTNER,* 1894, in place of
S. H. SCUDDER, resigned.
44. L. O. HOWARD, 1895, in place of
D. S. JORDAN, resigned.
45. THEO. GILL, 1896.
46. L. O. HOWARD, 1897, in place of
G. BROWN GOODE,* deceased.
47. A. S. PACKARD,* 1898.
48. S. H. GAGE, 1899.
49. C. B. DAVENPORT, 1900.
50. D. S. JORDAN, 1901.
51. E. L. MARK, 1902, in the absence
of C. C. NUTTING.
52. C. W. HARGITT, 1902.
53. E. L. MARK, 1903.
54. C. HART MERRIAM, 1904.

VICE-PRESIDENTS OF SECTIONS, CONTINUED.

55. H. B. WARD, 1905.
56. E. G. CONKLIN, 1906.
57. E. G. CONKLIN, 1906.
58. E. B. WILSON, 1907.
59. C. J. HERRICK, 1908.
60. C. J. HERRICK, 1908.
61. W. E. RITTER, 1909.

Section G.—Microscopy, 1882-85.

31. A. H. TUTTLE, 1882.
 32. J. D. COX, * 1883.
 33. T. G. WORMLEY, * 1884.
 34. S. H. GAGE, 1885.
- (Section united with F in 1886.)

Section G.—Botany.

42. CHARLES E. BESSEY, 1893.
43. (L. M. UNDERWOOD, * 1894.
43. (C. E. BESSEY, 1894.
44. J. C. ARTHUR, 1895.
45. N. L. BRITTON, 1896.
46. G. F. ATKINSON, 1897.
47. W. G. FARLOW, 1898.
48. C. R. BARNES, * 1899.
49. W. TRELEASE, 1900.
50. B. T. GALLOWAY, 1901.
51. C. E. BESSEY, 1902, in the absence of D. H. CAMPBELL.
52. F. V. COVILLE, 1902.
53. T. H. MACBRIDE, 1903.
54. B. L. ROBINSON, 1904.
55. B. L. ROBINSON, 1905, in the absence of ERWIN F. SMITH.
56. D. T. MACDOUGAL, 1906.
57. D. T. MACDOUGAL, 1906.
58. C. E. BESSEY, 1907.
59. H. M. RICHARDS, 1908.
60. H. M. RICHARDS, 1908.
61. D. P. PENHALLOW, 1909.

Section H.—Anthropology and Psychology.

31. ALEX. WINCHELL, * 1882.
32. OTIS T. MASON, * 1883.
33. EDWARD S. MORSE, 1884.
34. J. OWEN DORSEY, * 1885, in the absence of W. H. DALL.
35. HORATIO HALE, * 1886.
36. D. G. BRINTON, * 1887.
37. CHARLES C. ABBOTT, 1888.
38. GARRICK MALLERY, * 1889.
39. FRANK BAKER, 1890.
40. JOSEPH JASTROW, 1891.
41. W. H. HOLMES, 1892.
42. J. OWEN DORSEY, * 1893.
43. FRANZ BOAS, 1894.
44. F. H. CUSHING, * 1895.
45. ALICE C. FLETCHER, 1896.
46. W. J. MCGEE, 1897.
47. J. MCK. CATTELL, 1898.
48. THOMAS WILSON, * 1899.
49. A. W. BUTLER, 1900.
50. J. WALTER FEWKES, 1901.
51. STEWART CULIN, 1902.
52. GEO. A. DORSEY, 1902.
53. M. H. SAVILLE, 1903.
54. WALTER HOUGH, 1904.
55. GEORGE GRANT MACCURDY, 1905.
56. HUGO MUNSTERBERG, 1906.
57. A. L. KROEBER, 1906.
58. FRANZ BOAS, 1907.
59. R. S. WOODWORTH, 1908.
60. R. S. WOODWORTH, 1908.
61. WM. H. HOLMES, 1909.

Section I.—Social and Economic Science.

31. E. B. ELLIOTT, * 1882.
32. FRANKLIN B. HOUGH, * 1883.
33. JOHN EATON, * 1884.
34. EDWARD ATKINSON, 1885.

VICE-PRESIDENTS OF SECTIONS, CONTINUED.

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|---|---|
| 35. JOSEPH CUMMINGS,* 1886. | 60. WILLIAM GRAHAM SUMNER,* 1908. |
| 36. H. E. ALVORD,* 1887. | 61. BYRON W. HOLT, 1909, in place
of CARROLL D. WRIGHT, * de-
ceased. |
| 37. CHARLES W. SMILEY, 1888. | |
| 38. CHARLES S. HILL, 1889. | |
| 39. J. RICHARDS DODGE,* 1890. | |
| 40. EDMUND J. JAMES, 1891. | <i>Section K.—Physiology and Experi-
mental Medicine.</i> |
| 41. L. F. WARD, 1892, in place of S.
D. HORTON,* resigned. | |
| 42. WILLIAM H. BREWER, 1893. | 51. W. H. WELCH, 1902. |
| 43. HENRY FARQUHAR, 1894. | 52. W. H. WELCH, 1902. |
| 44. B. E. FERNOW, 1895. | 53. H. P. BOWDITCH, 1903. |
| 45. W. R. LAZENBY, 1896. | 54. H. P. BOWDITCH, 1904. |
| 46. R. T. COLBURN, 1897. | 55. ALEXANDER C. ABBOTT, 1905, in
the absence of W. T. SEDG-
WICK. |
| 47. ARCHIBALD BLUE, 1898. | |
| 48. MARCUS BENJAMIN, 1899. | 56. SIMON FLEXNER, 1906. |
| 49. MARCUS BENJAMIN, 1900, in the
absence of C. M. WOODWARD. | 57. SIMON FLEXNER, 1906. |
| 50. JOHN HYDE, 1901. | 58. LUDVIG HEKTOEN, 1907. |
| 51. JOHN HYDE, 1902, in the absence
of CARROLL D. WRIGHT.* | 59. WILLIAM H. HOWELL, 1908. |
| 52. H. T. NEWCOMB, 1902. | 60. WILLIAM H. HOWELL, 1908. |
| 53. SIMEON E. BALDWIN, 1903. | 61. CHARLES S. MINOT, 1909. |
| 54. MARTIN A. KNAPP, 1904. | <i>Section L.—Education.</i> |
| 55. IRVING FISHER, 1905. | |
| 56. CHAS. A. CONANT, 1906. | 58. ELMER ELLSWORTH BROWN, 1907. |
| 57. CHAS. A. CONANT, 1906. | 59. JOHN DEWEY, 1908. |
| 58. JOHN FRANKLIN CROWELL, 1907. | 60. JOHN DEWEY, 1908. |
| 59. WILLIAM GRAHAM SUMNER,* 1908. | 61. JAMES E. RUSSELL, 1909. |

SECRETARIES.

- | | |
|---|--|
| <i>General Secretaries, 1848—</i> | 8. J. LAWRENCE SMITH,* 1854. |
| | 9. WOLCOTT GIBBS,* 1855. |
| 1. WALTER R. JOHNSON,* 1848. | 10. B. A. GOULD,* 1856. |
| 2. E. N. HORSFORD,* 1849, in the
absence of JEFFRIES WYMAN.* | 11. JOHN L. LECONTE,* 1857. |
| 3. L. R. GIBBS,* 1850, in the ab-
sence of E. C. HERRICK.* | 12. W. M. GILLESPIE,* 1858, in the
absence of WM. CHAUVENET.* |
| 4. E. C. HERRICK,* 1850. | 13. WM. CHAUVENET,* 1859. |
| 5. WM. B. ROGERS,* 1851, in the
absence of E. C. HERRICK.* | 14. JOSEPH LECONTE,* 1860. |
| 6. WM. B. ROGERS,* 1851. | 15. ELIAS LOOMIS,* 1866, in the ab-
sence of W. P. TROWBRIDGE.* |
| 7. S. ST. JOHN,* 1853 in the absence
of J. D. DANA.* | 16. C. S. LYMAN,* 1867. |
| | 17. SIMON NEWCOMB,* 1868, in the
absence of A. P. ROCKWELL.* |

SECRETARIES, CONTINUED.

18. O. C. MARSH,* 1869.
 19. F. W. PUTNAM, 1870, in the absence of C. F. HARTT.*
 20. F. W. PUTNAM, 1871.
 21. EDWARD S. MORSE, 1872.
 22. C. A. WHITE,* 1873.
 23. A. C. HAMLIN, 1874.
 24. S. H. SCUDDER, 1875.
 25. T. C. MENDENHALL, 1876.
 26. AUG. R. GROTE,* 1877.
 27. H. C. BOLTON,* 1878.
 28. H. C. BOLTON,* 1879, in the absence of GEORGE LITTLE.
 29. J. K. REES,* 1880.
 30. C. V. RILEY,* 1881.
 31. WILLIAM SAUNDERS, 1882.
 32. J. R. EASTMAN, 1883.
 33. ALFRED SPRINGER, 1884.
 34. C. S. MINOT, 1885.
 35. S. G. WILLIAMS,* 1886.
 36. WILLIAM H. PETTEE,* 1887.
 37. JULIUS POHLMAN, 1888.
 38. C. LEO MEES, 1889.
 39. H. C. BOLTON,* 1890.
 40. H. W. WILEY, 1891.
 41. A. W. BUTLER, 1892.
 42. T. H. NORTON, 1893.
 43. H. L. FAIRCHILD, 1894.
 44. JAS. LEWIS HOWE, 1895.
 45. CHARLES R. BARNES,* 1896.
 46. ASAPH HALL, JR., 1897.
 47. J. McMAHON, 1898, in place of D. S. KELLICOTT,* deceased.
 48. FREDERICK BEDELL, 1899.
 49. CHAS. BASKERVILLE, 1900.
 50. JOHN M. COULTER, 1901, in the absence of WILLIAM HALLOCK.
 51. D. T. MACDOUGAL, 1902.
 52. HENRY B. WARD, 1902.
 53. C. W. STILES, 1903.
 54. CHARLES S. HOWE, 1904.
 55. C. A. WALDO, 1905.
 56. JOHN F. HAYFORD, 1906.
57. JOHN F. HAYFORD, 1906.
 58. F. W. McNAIR, 1907.
 59. J. PAUL GOODE, 1908.
 60. J. PAUL GOODE, 1908.
 61. DAYTON C. MILLER, 1909.
- Permanent Secretaries, 1851-*
- 5-7. SPENCER F. BAIRD,* 1851-4.
 8-17. JOSEPH LOVERING,* 1854-68.
 18. F. W. PUTNAM, 1869, in the absence of J. LOVERING.*
 19-21. JOSEPH LOVERING,* 1870-73.
 22-46. F. W. PUTNAM, 1873-98.
 47-67. L. O. HOWARD, 1898-1915.
- Assistant General Secretaries, 1882-1887.*
31. J. R. EASTMAN, 1882.
 32. ALFRED SPRINGER, 1883.
 33. C. S. MINOT, 1884, in the absence of E. S. HOLDEN.
 34. S. G. WILLIAMS,* 1885, in the absence of C. C. ABBOTT.
 35. W. H. PETTEE,* 1886.
 36. J. C. ARTHUR, 1887.
- Secretaries of the Council, 1888-*
37. C. LEO MEES, 1888.
 38. H. C. BOLTON,* 1889.
 39. H. W. WILEY, 1890.
 40. A. W. BUTLER, 1891.
 41. T. H. NORTON, 1892.
 42. H. LEROY FAIRCHILD, 1893.
 43. JAS. LEWIS HOWE, 1894.
 44. CHARLES R. BARNES,* 1895.
 45. ASAPH HALL, JR., 1896.
 46. D. S. KELLICOTT,* 1897.
 47. FREDERICK BEDELL, 1898.
 48. CHARLES BASKERVILLE, 1899.

SECRETARIES, CONTINUED.

- | | |
|---|--|
| 49. WILLIAM HALLOCK, 1900. | 25. A. W. WRIGHT, 1876. |
| 50. D. T. MACDOUGAL, 1901. | 26. H. C. BOLTON,* 1877. |
| 51. H. B. WARD, 1902. | 27. F. E. NIPHER, 1878. |
| 52. C. WARDELL STILES, 1902. | 28. J. K. REES,* 1879. |
| 53. CHAS. S. HOWE, 1903. | 29. H. B. MASON, 1880. |
| 54. C. A. WALDO, 1904. | 30. E. T. TAPPAN, 1881, in the absence of JOHN TROWBRIDGE. |
| 55. JOHN F. HAYFORD, 1905. | |
| 56. F. W. MCNAIR, 1906. | |
| 57. F. W. MCNAIR, 1906. | |
| 58. J. PAUL GOODE, 1907, in place of WILLIAM HARPER DAVIS. | <i>Secretaries of Section B.—Natural History, 1874-1881.</i> |
| 59. DAYTON C. MILLER, 1908. | |
| 60. DAYTON C. MILLER, 1908. | 24. EDWARD S. MORSE, 1875. |
| 61. FRANCIS G. BENEDICT, 1909. | 25. ALBERT H. TUTTLE, 1876. |
| | 26. WILLIAM H. DALL, 1877. |
| <i>Secretaries of Section A.—Mathematics, Physics and Chemistry, 1875-1881.</i> | 27. GEORGE LITTLE, 1878. |
| | 28. WM. H. DALL, 1879, in the absence of A. C. WETHERBY. |
| 24. (S. P. LANGLEY,* 1875. | 29. CHARLES V. RILEY,* 1880. |
| (T. C. MENDENHALL, 1875. | 30. WILLIAM SAUNDERS, 1881. |

SECRETARIES OF SUBSECTIONS, 1875-1881.

Subsection of Chemistry.

24. F. W. CLARKE, 1875.
 25. H. C. BOLTON,* 1876.
 26. P. SCHWEITZER, 1877.
 27. A. P. S. STUART,* 1878.
 28. W. R. NICHOLS,* 1879.
 29. C. E. MUNROE, 1880.
 30. ALFRED SPRINGER, 1881, in the absence of R. B. WARDER.*

Subsection of Entomology.

30. B. PICKMAN MANN, 1881.

Subsection of Anthropology.

24. F. W. PUTNAM, 1875.
 25. OTIS T. MASON,* 1876.
 26. 27. United with Section B.
 28-30. J. G. HENDERSON, 1879-81.

Subsection of Microscopy.

25. E. W. MORLEY, 1876.
 26. T. O. SOMMERS, JR., 1877.
 27. G. J. ENGELMANN,* 1878.
 28, 29. A. B. HERVEY, 1879-80
 30. W. H. SEAMAN,* 1881, in the absence of S. P. SHARPLES

SECRETARIES OF THE SECTIONS, 1882-

Section A.—Mathematics and Astronomy.

31. H. T. EDDY, 1882.
 32. G. W. HOUGH,* 1883, in the absence of W. W. JOHNSON.
 33. G. W. HOUGH,* 1884.
 34. E. W. HYDE, 1885.
 35. S. C. CHANDLER, 1886
 36. H. M. PAUL, 1887.
 37. C. L. DOOLITTLE, 1888.
 38. G. C. COMSTOCK, 1889.
 39. W. W. BEMAN, 1890.
 40. F. H. BIGELOW, 1891.
 41. WINSLOW UPTON, 1892.
 42. C. A. WALDO, 1893, in the absence of A. W. PHILLIPS.
 43. J. C. KERSHNER, 1894, in place of W. W. BEMAN, resigned.
 44. ASAPH HALL, JR., 1895, in place of E. H. MOORE, resigned.
 45. EDWIN B. FROST, 1896.
 46. JAMES McMAHON, 1897.
 47. WINSLOW UPTON, 1898, in place of ALEX. ZIWET, resigned.
 48. JOHN F. HAYFORD, 1899.
 49. W. M. STRONG, 1900.
 50. G. A. MILLER, 1901, in place of H. C. LORD, resigned.
 51. E. S. CRAWLEY, 1902.
 52. C. S. HOWE, 1902.
 53-57. L. G. WELD, 1903-1906.
 58-64. GEORGE A. MILLER, 1907-1912.

Section B.—Physics.

31. C. S. HASTINGS, 1882.
 32. F. E. NIPHER, 1883, in the absence of C. K. WEAD.
 33. N. D. C. HODGES, 1884.
 34. B. F. THOMAS, 1885, in place of A. A. MICHELSON, resigned.

35. H. S. CARHART, 1886.
 36. C. LEO MEES, 1887.
 37. ALEX. MACFARLANE, 1888
 38. E. L. NICHOLS, 1889.
 39. E. M. AVERY, 1890.
 40. ALEX. MACFARLANE, 1891
 41. BROWN AYRES, 1892.
 42. W. LeCONTE STEVENS, 1893.
 43. B. W. SNOW, 1894.
 44. ERNEST MERRITT, 1895.
 45. FRANK P. WHITMAN, 1896.
 46. FREDERICK BEDELL, 1897.
 47. W. S. FRANKLIN, 1898, in place of E. B. ROSA, resigned.
 48. WILLIAM HALLOCK, 1899.
 49. R. A. FESSENDEN, 1900.
 50. JOHN ZELENY, 1901, in place of J. O. REED, resigned.
 51. E. F. NICHOLS, 1902.
 52. D. C. MILLER, 1902.
 53-57. D. C. MILLER, 1903-1906.
 58-63. A. D. COLE, 1907-1911.

Section C.—Chemistry

31. ALFRED SPRINGER, 1882
 (J. W. LANGLEY, 1883.
 32. (W. McMURTRIE, 1883.
 33. H. CARMICHAEL, 1884, in the absence of R. B. WARDER.*
 34. F. P. DUNNINGTON, 1885
 35. W. McMURTRIE, 1886.
 36. C. F. MABERY, 1887.
 37. W. L. DUDLEY, 1888.
 38. EDWARD HART, 1889.
 39. W. A. NOYES, 1890.
 40. T. H. NORTON, 1891.
 41. JAS. LEWIS HOWE, 1892.
 42. H. N. STOKES, 1893, in the absence of J. U. NEP.
 43. MORRIS LOEB, 1894, in place of S. M. BABCOCK, resigned.

SECRETARIES OF THE SECTIONS, CONTINUED.

44. { W. P. MASON, 1895.
W. O. ATWATER,* 1895.
45. FRANK P. VENABLE, 1896.
46. P. C. FREER, 1897.
47. C. BASKERVILLE, 1898.
48. H. A. WEBER, 1899.
49. A. A. NOYES, 1900.
50. W. MCPHERSON, 1901.
51. F. C. PHILLIPS, 1902.
52. H. N. STOKES, 1902.
- 53-58. CHAS. L. PARSONS, 1903-07.
- 59-64. CHARLES H. HERTY, 1908-1912.
- 53-58. W. T. MAGRUDER, 1903-1907.
- 59-64. GEORGE W. BISSELL, 1908-1912.

*Section E.—Geology and Geography.**Section D.—Mechanical Science and Engineering.*

31. J. BURKITT WEBB, 1882, in the absence of C. B. DUDLEY.*
32. J. BURKITT WEBB, 1883, *pro tempore*.
33. J. BURKITT WEBB, 1884.
34. C. J. H. WOODBURY, 1885.
35. WILLIAM KENT, 1886.
36. G. M. BOND, 1887.
37. ARTHUR BEARDSLEY, 1888.
38. W. R. WARNER, 1889.
39. THOMAS GRAY,* 1890.
40. WILLIAM KENT, 1891.
41. O. H. LANDRETH, 1892.
42. D. S. JACOBUS, 1893.
43. JOHN H. KINEALY, 1894.
44. H. S. JACOBY, 1895.
45. JOHN GALBRAITH, 1896.
46. JOHN J. FLATHER, 1897.
47. JOHN J. FLATHER, 1898, in the absence of W. S. ALDRICH.
48. J. M. PORTER, 1899.
49. W. T. MAGRUDER, 1900.
50. C. W. COMSTOCK, 1901, in the absence of W. H. JAQUES.
51. C. A. WALDO, 1902.
52. ELWOOD MEAD, 1902, in the absence of ALBERT KINGSBURY.
31. H. S. WILLIAMS, 1882, in the absence of C. E. DUTTON.
32. A. A. JULIEN, 1883.
33. E. A. SMITH, 1884.
34. G. K. GILBERT, 1885, in the absence of H. C. LEWIS.*
35. E. W. CLAYPOLE,* 1886.
36. W. M. DAVIS, 1887, in the absence of T. B. COMSTOCK.
37. JOHN C. BRANNER, 1888.
38. JOHN C. BRANNER, 1889.
39. SAMUEL CALVIN, 1890.
40. W. J. MCGEE, 1891.
41. R. D. SALISBURY, 1892.
42. W. H. HOBBS, 1893, in place of R. T. HILL, resigned.
43. JED. HOTCHKISS,* 1894, in place of W. M. DAVIS, resigned.
44. J. PERRIN SMITH, 1895.
45. W. N. RICE, 1896, in place of A. C. GILL, resigned.
46. C. H. SMITH, JR., 1897.
47. WARREN UPHAM, 1898.
48. ARTHUR HOLLICK, 1899.
49. J. A. HOLMES, 1900.
50. H. B. PATTON, 1901, in the absence of R. A. F. PENROSE.
51. F. P. GULLIVER, 1902.
52. E. O. HOVEY, 1902.
53. E. O. HOVEY, 1903, in absence of G. B. SHATTUCK, 1903.
- 54-57. EDMUND O. HOVEY, 1904-1906.
- 58-63. F. P. GULLIVER, 1907-1911.

Section F.—Biology, 1882-92.

31. WILLIAM OSLER, 1882, in the absence of C. S. MINOT.

SECRETARIES OF THE SECTIONS, CONTINUED.

32. S. A. FORBES, 1883.
 33. C. E. BESSEY, 1884.
 34. J. A. LINTNER,* 1885, in place of C. H. FERNALD, resigned.
 35. J. C. ARTHUR, 1886.
 36. J. H. COMSTOCK, 1887.
 37. B. E. FERNOW, 1888.
 38. A. W. BUTLER, 1889.
 39. J. M. COULTER, 1890.
 40. A. J. COOK, 1891.
 41. B. D. HALSTED, 1892.
- Section F.—Zoology.*
42. L. O. HOWARD, 1893.
 43. JOHN B. SMITH, 1894, in place of W. M. LIBBY, JR., resigned.
 44. C. W. HARGITT, 1895, in place of S. A. FORBES, resigned.
 45. D. S. KELLCOTT,* 1896.
 46. C. C. NUTTING, 1897.
 47. R. T. JACKSON, 1898, in place of C. W. STILES, resigned.
 48. C. L. MARLATT, 1899, in place of F. W. TRUE, resigned.
 49. C. H. EIGENMANN, 1900.
 50. H. B. WARD, 1901.
 51. C. W. STILES, 1902.
 52. C. J. HERRICK, 1902.
 53-58. C. J. HERRICK, 1903-07.
 59-64. MAURICE A. BIGELOW, 1908-1912.
- Section G.—Microscopy, 1882-85.*
31. ROBERT BROWN, JR., 1882.
 32. CARL SEILER, 1883.
 33. ROMYN HITCHCOCK, 1884.
 34. W. H. WALMSLEY, 1885.
- Section G.—Botany.*
42. B. T. GALLOWAY, 1893, in the absence of F. V. COVILLE.
 43. CHAS. R. BARNES,* 1894.
- (B. T. GALLOWAY, 1895.
 † (M. B. WAITE, 1895.
 45. GEORGE F. ATKINSON, 1896.
 46. F. C. NEWCOMBE, 1897.
 47. ERWIN F. SMITH, 1898.
 48. W. A. KELLERMAN,* 1899.
 49. D. T. MACDOUGAL, 1900.
 50. ERNST A. BESSEY, 1901, in the absence of A. S. HITCHCOCK.
 51. H. VON SCHRENK, 1902.
 52. C. J. CHAMBERLAIN, 1902.
 53-55. F. E. LLOYD, 1903-1905.
 56. G. F. ATKINSON, 1906, in the absence of F. E. LLOYD.
 57. TRACY E. HAZEN, 1906, in the absence of F. E. LLOYD.
 58. HENRY C. COWLES, 1907, in the absence of F. E. LLOYD.
 59-64. HENRY C. COWLES, 1908-1912.
- Section H.—Anthropology and Psychology.*
31. OTIS T. MASON,* 1882.
 32. G. H. PERKINS, 1883.
 33. G. H. PERKINS, 1884, in the absence of W. H. HOLMES.
 34. ERMINNIE A. SMITH,* 1885.
 35. A. W. BUTLER, 1886.
 36. CHAS. C. ABBOTT, 1887, in the absence of F. W. LANGDON.
 37. FRANK BAKER, 1888.
 38. W. M. BEAUCHAMP, 1889.
 39. JOSEPH JASTROW, 1890.
 40. W. H. HOLMES, 1891.
 41. W. M. BEAUCHAMP, 1892, in place of STEWART CULIN, resigned.
 42. W. K. MOOREHEAD, 1893.
 43. A. F. CHAMBERLIN, 1894.
 44. { STEWART CULIN and W. W. TOOKER, 1895, in place of ANITA N. MCGEE, res'd.

SECRETARIES OF THE SECTIONS, CONTINUED.

45. G. H. PERKINS, 1896, in place of J. G. BOURKE,* deceased.
46. ANITA N. MCGEE, 1897, in place of HARLAN I. SMITH, resigned.
47. MARSHALL H. SAVILLE, 1898.
48. E. W. SCRIPTURE, 1899, in place of GEO. A. DORSEY, resigned.
49. FRANK RUSSELL,* 1900.
50. G. G. MACCURDY, 1901.
51. HARLAN I. SMITH, 1902.
52. R. B. DIXON, 1902.
- 53-60. GEO. H. PEPPER, 1903-08.
- 61-65. GEO. G. MACCURDY, 1909-1913.
- Section I.—Social and Economic Science.*
31. { FRANKLIN B. HOUGH,* 1882.
J. RICHARDS DODGE,* 1882.
32. JOSEPH CUMMINGS,* 1883.
33. CHARLES W. SMILEY, 1884.
34. CHAS. W. SMILEY, 1885, in the absence of J. W. CHICKERING.
35. H. E. ALVORD,* 1886.
36. W. R. LAZENBY, 1887.
37. CHARLES S. HILL, 1888.
38. J. RICHARDS DODGE,* 1880
39. B. E. FERNOW, 1890.
40. B. E. FERNOW, 1891.
41. HENRY FARQUHAR, 1892, in place of L. F. WARD, made Vice-President.
42. NELLIE S. KEDZIE, 1893.
43. MANLEY MILES, 1894.
44. W. R. LAZENBY, 1895, in place of E. A. ROSS, resigned.
45. R. T. COLBURN, 1896.
46. ARCHIBALD BLUE, 1897.
47. MARCUS BENJAMIN, 1898
48. CALVIN M. WOODWARD, 1899.
49. H. T. NEWCOMB, 1900.
50. R. A. PEARSON, 1901, in place of CORA A. BENNESON, resigned.
51. F. R. RUTTER, 1902, in place of WALTER F. WILLCOX, resigned.
52. F. H. HITCHCOCK, 1902.
- 53-57. J. F. CROWELL, 1903-06.
- 58-60. J. PEASE NORTON, 1907-1908.
61. JNO. F. CROWELL, 1909, in place of J. P. NORTON, res. gd.
- 62-64. FRED. C. CROXTON, 1910-1912.
- Section K.—Physiology and Experimental Medicine.*
51. F. S. LEE, 1902.
52. F. S. LEE, 1903.
53. F. S. LEE, 1904.
- 54-60. W. J. GIES, 1904-08.
- 61-65. GEORGE T. KEMP, 1909-1913.
- Section L.—Education.*
58. E. L. THORNDIKE, 1907, pro tem.
- 59-64. C. RIBORG MANN, 1908-1912.

TREASURERS.

1. JEFFRIES WYMAN,* 1848.
2. A. L. ELWYN,* 1849.
3. ST. J. RAVENEL,* 1850, in the absence of A. L. ELWYN.*
4. A. L. ELWYN,* 1850.
5. SPENCER F. BAIRD,* 1851, in the absence of A. L. ELWYN.*
- 6-7. A. L. ELWYN,* 1851-53.
8. J. L. LECONTE,* 1854, in the absence of A. L. ELWYN,*
- 9-10. A. L. ELWYN,* 1855-1870.
- 20-30. WM. S. VAUX,* 1871-1881.
- 32-42. WM. LILLY,* 1882-93.
- 43-49. R. S. WOODWARD, 1894-1900.
- 50-54. R. S. WOODWARD, 1901-1905.
- 55-61. R. S. WOODWARD, 1906-1910.

Officers for the Minneapolis Meeting.

(December 27 to 31, 1910.)

PRESIDENT.

ALBERT A. MICHELSON, University of Chicago, Chicago, Ill.

VICE-PRESIDENTS.

- A. *Mathematics and Astronomy*—ELIAKIM H. MOORE, University of Chicago, Chicago, Ill.
- B. *Physics*—EDWARD B. ROSA, Bureau of Standards, Washington, D. C.
- C. *Chemistry*—GEORGE B. FRANKFORTER, University of Minnesota, Minneapolis, Minn.
- D. *Mechanical Science and Engineering*—A. LAWRENCE ROTCH, Blue Hill Meteorological Observatory, Hyde Park, Mass.
- E. *Geology and Geography*—CHRISTOPHER W. HALL, University of Minnesota, Minneapolis, Minn.
- F. *Zoology*—JACOB REIGHARD, University of Michigan, Ann Arbor, Mich.
- G. *Botany*—ROBERT A. HARPER, University of Wisconsin, Madison, Wis.
- H. *Anthropology and Psychology*—ROLAND B. DIXON, Harvard University, Cambridge, Mass.
- I. *Social and Economic Science*—HON. THEODORE E. BURTON, Cleveland, Ohio.
- K. *Physiology and Experimental Medicine*—FREDERICK G. NOVY, University of Michigan, Ann Arbor, Mich.
- L. *Education*—A. ROSS HILL, University of Missouri, Columbia, Mo.

PERMANENT SECRETARY.

L. O. HOWARD, Smithsonian Institution, Washington, D. C.

GENERAL SECRETARY.

FREDERIC E. CLEMENTS, University of Minnesota, Minneapolis, Minn.

SECRETARY OF THE COUNCIL.

JOHN ZELENY, University of Minnesota, Minneapolis, Minn.

SECRETARIES OF THE SECTIONS.

- A. *Mathematics and Astronomy*—GEORGE A. MILLER, University of Illinois, Urbana, Ill.
- B. *Physics*—A. D. COLE, Ohio State University, Columbus, Ohio.
- C. *Chemistry*—C. H. HERTY, University of North Carolina, Chapel Hill, N. C.

- D. *Mechanical Science and Engineering*—G. W. BISSELL, Michigan Agricultural College, East Lansing, Mich.
- E. *Geology and Geography*—F. P. GULLIVER, Norwich, Conn.
- F. *Zoology*—MAURICE A. BIGELOW, Columbia University, New York, N. Y.
- G. *Botany*—H. C. COWLES, University of Chicago, Chicago, Ill.
- H. *Anthropology and Psychology*—GEORGE GRANT MACCURDY, Yale University, New Haven, Conn.
- I. *Social and Economic Science*—FRED. C. CRONTON, 1429 New York Avenue, Washington, D. C.
- K. *Physiology and Experimental Medicine*—GEORGE T. KEMP, Hotel Beardsley, Champaign, Ill.
- L. *Education*—C. R. MANN, University of Chicago, Chicago, Ill.

TREASURER.

R. S. WOODWARD, Carnegie Institution, Washington, D. C.

ASSISTANT TO PERMANENT SECRETARY.

F. S. HAZARD, Office of the A. A. A. S., Smithsonian Institution,
Washington, D. C.

Members of Council for Minneapolis Meeting.

(December 27 to 31, 1910.)

Past Presidents.—GEORGE J. BRUSH, New Haven; EDWARD S. MORSE, Salem; T. C. MENDENHALL, Worcester; GEORGE L. GOODALE, Cambridge; EDWARD W. MORLEY, West Hartford; THEODORE GILL, Washington; F. W. PUTNAM, Cambridge; G. K. GILBERT, Washington; R. S. WOODWARD, Washington; C. S. MINOT, Boston; IRA REMSEN, Baltimore; W. G. FARLOW, Cambridge; C. M. WOODWARD, St. Louis; WM. H. WELCH, Baltimore; E. L. NICHOLS, Ithaca; T. C. CHAMBERLIN, Chicago; DAVID STARR JORDAN, Stanford University.

Vice-Presidents of the Hanover and Baltimore Meetings.—C. J. KEYSER, New York; KARL E. GUTHE, Ann Arbor; L. KAHLBERG, Madison; GEORGE F. SWAIN, Cambridge; BAILEY WILLIS, Washington; C. J. HERRICK, Chicago; H. M. RICHARDS, New York; R. S. WOODWORTH, New York; WILLIAM G. SUMNER,* New Haven; WILLIAM H. HOWELL, Baltimore; JOHN DEWEY, New York.

Vice-Presidents of the Boston Meeting.—E. W. BROWN, New Haven; L. A. BAUER, Washington; WILLIAM MCPHERSON, Columbus; J. F. HAYFORD, Evanston; R. W. BROCK, Ottawa; W. E. RITTER, San Diego; D. P. PENHALLOW, Montreal; WM. H. HOLMES, Washington; BYRON W. HOLT, New York; C. S. MINOT, Boston; JAMES E. RUSSELL, New York.

Officers for the Minneapolis Meeting.—E. H. MOORE, Chicago; E. B. ROSA, Washington; G. B. FRANKFORTER, Minneapolis; A. L. ROTCH, Hyde Park; CHRISTOPHER W. HALL, Minneapolis; JACOB REIGHARD, Ann Arbor; R. A. HARPER, Madison; R. B. DIXON, Cambridge; T. E. BURTON, Cleveland; F. G. NOVY, Ann Arbor; A. ROSS HILL, Columbia; L. O. HOWARD, Washington; F. E. CLEMENTS, Minneapolis; JOHN ZELENY, Minneapolis; G. A. MILLER, Urbana; A. D. COLE, Columbus; C. H. HERTY, Chapel Hill; G. W. BISSELL, East Lansing; F. P. GULLIVER, Norwich; M. A. BIGELOW, New York; H. C. COWLES, Chicago; G. G. MACCURDY, New Haven; F. C. CROXTON, Washington; GEORGE T. KEMP, Champaign; C. R. MANN, Chicago; R. S. WOODWARD, Washington.

From the Association at Large.—G. B. HALSTED, Greeley; W. S. FRANKLIN, Bethlehem; W. P. BRADLEY, Middletown; F. W. MCNAIR, Houghton; A. P. BRIGHAM, Hamilton; F. L. LANDACRE, Columbus; A. D. SELBY, Wooster; FRANZ BOAS, New York; JOHN F. CROWELL, New York; THOMAS G. LEE, Minneapolis; CHARLES S. HOWE, Cleveland.

Elected by the Council.—(For one year) HENRY B. WARD, WM. TRELEASE, L. P. KINNICUTT; (for two years) J. McK. CATTELL, J. M. COULTER, N. L. BRITTON; (for three years) H. L. FAIRCHILD, FRANZ BOAS, IRVING FISHER.

From the Affiliated Societies.—American Chemical Society: WILDER D. BANCROFT, C. L. PARSONS; Geological Society of America: ARNOLD HAGUE, E. O. HOVEY; Botanical Society of America: ROLAND THAXTER, DUNCAN S. JOHNSON; American Microscopical Society: T. J. BURRILL, HENRY B. WARD; American Psychological Association: C. H. JUDD; American Society of Naturalists; H. S. JENNINGS, A. G. MAYER; American Association of Economic Entomologists: HENRY E. SUMMERS, STEPHEN A. FORBES; American Anthropological Association: R. B. DIXON, G. B. GORDON; Astronomical and Astrophysical Society of America: GEORGE C. COMSTOCK, WILLIAM J. HUSSEY; American Physical Society: A. G. WEBSTER, ERNEST MERRITT; Society of American Bacteriologists: ERWIN F. SMITH; Association of American Anatomists: SIMON H. GAGE; Society for Horticultural Science: W. M. MUNSON; Entomological Society of America: J. B. SMITH, C. J. S. BETHUNE; American Society of Mechanical Engineers: ALEXANDER C. HUMPHREYS, FRED J. MILLER; American Institute of Electrical Engineers: SAMUEL SHELDON, WILLIAM ESTY; American Society of Civil Engineers: CHARLES WARREN HUNT, GEORGE GIBBS; American Institute of Mining Engineers: H. O. HOFMAN, S. F. EMMONS; American Medical Association: GEORGE H. SIMMONS, GEORGE M. KOBER; American Federation of Teachers of the Mathematical and Natural Sciences: H. W. TYLER, OTIS W. CALDWELL; Association of American Geographers: H. C. COWLES, A. P. BRIGHAM.

Commonwealth of Massachusetts.

In the Year One Thousand Eight Hundred and Seventy-Four.

AN ACT

TO INCORPORATE THE "AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE."

Be it enacted by the Senate and House of Representatives, in General Court assembled, and by the authority of the same, as follows:

SECTION 1. Joseph Henry of Washington, Benjamin Pierce of Cambridge, James D. Dana of New Haven, James Hall of Albany, Alexis Caswell of Providence, Stephen Alexander of Princeton, Isaac Lea of Philadelphia, F. A. P. Barnard of New York, John S. Newberry of Cleveland, B. A. Gould of Cambridge, T. Sterry Hunt of Boston, Asa Gray of Cambridge, J. Lawrence Smith of Louisville, Joseph Lovering of Cambridge, and John LeConte of Philadelphia, their associates, the officers and members of the Association known as the "American Association for the Advancement of Science," and their successors, are hereby made a corporation by the name of the "American Association for the Advancement of Science," for the purpose of receiving, purchasing, holding, and conveying real and personal property, which it now is, or hereafter may be, possessed of, with all the powers and privileges, and subject to the restrictions, duties and liabilities set forth in the general laws which now or hereafter may be in force and applicable to such corporations.

SECTION 2. Said corporation may have and hold by purchase, grant, gift, or otherwise, real estate not exceeding one hundred thousand dollars in value, and personal estate of the value of two hundred and fifty thousand dollars.

SECTION 3. Any two of the corporators above named are hereby authorized to call the first meeting of the said corporation in the month of August next ensuing, by notice thereof "by mail," to each member of the said Association.

SECTION 4. This act shall take effect upon its passage.

HOUSE OF REPRESENTATIVES, March 10, 1874.

Passed to be enacted,

JOHN E. SANFORD, *Speaker*.

IN SENATE, March 17, 1874.

Passed to be enacted,

GEO. B. LORING, *President*.

March 19, 1874.

Approved.

W. B. WASHBURN.

SECRETARY'S DEPARTMENT,

Boston, April 3, 1874.

A true copy, Attest:

DAVID PULSIFER,

Deputy Secretary of the Commonwealth.

CONSTITUTION

OF THE

AMERICAN ASSOCIATION FOR THE ADVANCE- MENT OF SCIENCE.

Incorporated by Act of the General Court of the Commonwealth of Massachusetts.

OBJECTS.

ARTICLE 1. The objects of the Association are, by periodical and migratory meetings, to promote intercourse between those who are cultivating science in different parts of America, to give a stronger and more general impulse and more systematic direction to scientific research, and to procure for the labors of scientific men increased facilities and a wider usefulness.

MEMBERSHIP.

ART. 2. The Association shall consist of members, fellows, patrons, corresponding members and honorary fellows.

MEMBERS.

ART. 3. Any person may become a member of the Association upon recommendation in writing by two members or fellows, and election by the Council. Any incorporated scientific society or institution, or any public or incorporated library, may be enrolled as a member of the Association by vote of the Council by payment of the initiation fee; such society, institution, or library may be represented by either the President, Curator, Director, or Librarian presenting proper credentials at any meeting of the Association for which the assessment has been paid.

ASSOCIATES.

Associates for any single meeting shall be admitted on the payment of three dollars, such associates to have all the privileges of the meeting, except reading papers and voting.

Members of scientific societies whose meetings are contemporaneous with, or immediately subsequent to, that of the Association, and which

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are recognized by vote of the Council as "Affiliated Societies," may become associate members for that meeting on the payment of three dollars. They shall be entitled to all the privileges of membership except voting or appointment to office, but their names shall not appear in the list of members printed in the annual report.

FOREIGN ASSOCIATES.

Any member or fellow of any national scientific or educational institution, or of any society or academy of science, of any country not in America, who may be present at any meeting of the Association shall, on presenting the proper credentials, be enrolled without fee as a Foreign Associate, and shall be entitled to all the privileges of the meeting except voting on matters of business.

FELLOWS.

ART. 4. Fellows shall be elected by the Council from such of the members as are professionally engaged in science, or have, by their labors, aided in advancing science. The election of fellows shall be by ballot, and a majority vote of the members of the Council at a designated meeting of the Council.

PATRONS.

ART. 5. Any person paying to the Association the sum of one thousand dollars shall be classed as a patron, and shall be entitled to all the privileges of a member and to all its publications.

HONORARY FELLOWS AND CORRESPONDING MEMBERS.

ART. 6. Honorary fellows of the Association, not exceeding three for each Section, may be elected, the nominations to be made by the Council and approved by ballot in the respective sections before election by ballot in General Session. Honorary fellows shall be entitled to all the privileges of fellows, and shall be exempt from all fees and assessments, and entitled to all publications of the Association issued after the date of their election. Corresponding members shall consist of such scientists not residing in America as may be elected by the Council, and their number shall be limited to fifty. Corresponding members shall be entitled to all the privileges of members and to the annual volumes of Proceedings published subsequent to their election.

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SUSPENSIONS.

ART. 7. The name of any member or fellow two years in arrears for annual dues shall be erased from the list of the Association, provided, that two notices of indebtedness, at an interval of at least three months, shall have been given, and no such person shall be restored until he has paid his arrearages or has been re-elected. The Council shall have power to exclude from the Association any member or fellow, on satisfactory evidence that said member or fellow is an improper person to be connected with the Association, or has in the estimation of the Council made improper use of his membership or fellowship.

OFFICERS.

ART. 8. No member or fellow shall take part in the organization of, or hold office in, more than one section at any one meeting.

ART. 9. The officers of the Association shall be elected by ballot by the General Committee from the fellows, and shall consist of a President, a Vice-President from each section, a Permanent Secretary, a General Secretary, a Secretary of the Council, a Treasurer, and a Secretary of each Section; these, with the exception of the Permanent Secretary, the Treasurer, and the Secretaries of the Sections, shall be elected at each meeting for the following one, and, with the exception of the Treasurer and the Permanent Secretary, shall not be re-eligible for the next two meetings. The term of office of the Permanent Secretary, of the Treasurer, and of the Secretaries of the Sections, shall be five years.

PRESIDENT.

ART. 10. The President, or, in his absence, the senior Vice-President present, shall preside at all General Sessions of the Association and at all meetings of the Council. It shall also be the duty of the President to give an address at a General Session of the Association at the meeting following that over which he presided.

VICE-PRESIDENTS.

ART. 11. The Vice-Presidents shall be chairmen of their respective Sections, and of their Sectional Committees, and it shall be part of their duty to give an address, each before his own Section, at such time as the

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Council shall determine, at the meeting subsequent to that at which he presides. The Vice-Presidents may appoint temporary chairmen to preside over the sessions of their Sections, but shall not delegate their other duties. The Vice-Presidents shall have seniority in order of their continuous membership in the Association.

GENERAL SECRETARY.

ART. 12. The General Secretary shall be the Secretary of all General Sessions of the Association, and shall keep a record of the business of these sessions. He shall receive the records from the Secretaries of the Sections, which, after examination, he shall transmit with his own records to the Permanent Secretary within two weeks after the adjournment of the meeting.

SECRETARY OF THE COUNCIL.

ART. 13. The Secretary of the Council shall keep the records of the Council. He shall give to the Secretary of each Section the titles of papers assigned to it by the Council. He shall receive proposals for membership and bring them before the Council.

PERMANENT SECRETARY.

ART. 14. The Permanent Secretary shall be the executive officer of the Association under the direction of the Council. He shall attend to all business not specially referred to committees nor otherwise constitutionally provided for. He shall keep an account of all business that he has transacted for the Association, and make annually a general report for publication in the annual volume of Proceedings. He shall attend to the printing and distribution of the annual volume of Proceedings, and all other printing ordered by the Association. He shall issue a circular of information to members and fellows at least three months before each meeting, and shall, in connection with the Local Committee, make all necessary arrangements for the meetings of the Association. He shall provide the Secretaries of the Association with such books and stationery as may be required for their records and business, and shall provide members and fellows with such blank forms as may be required for facilitating the business of the Association. He shall collect all assessments and admission fees,

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and notify members and fellows of their election, and of any arrearages. He shall receive, and bring before the Council, the titles and abstracts of papers proposed to be read before the Association. He shall keep an account of all receipts and expenditures of the Association, and report the same annually at the first meeting of the Council, and shall pay over to the Treasurer such unexpended funds as the Council may direct. He shall receive and hold in trust for the Association all books, pamphlets, and manuscripts belonging to the Association, and allow the use of the same under the provisions of the Constitution and the orders of the Council. He shall receive all communications addressed to the Association during the intervals between meetings, and properly attend to the same. He shall at each meeting report the names of fellows and members who have died since the preceding meeting. He shall be allowed a salary which shall be determined by the Council, and may employ one or more clerks at such compensation as may be agreed upon by the Council.

TREASURER.

ART. 15. The Treasurer shall invest the funds received by him in such securities as may be directed by the Council. He shall annually present to the Council an account of the funds in his charge. No expenditure of the principal in the hands of the Treasurer shall be made without a unanimous vote of the Council, and no expenditure of the income received by the Treasurer shall be made without a two-thirds vote of the Council. The Treasurer shall give bonds for the faithful performance of his duty in such manner and sum as the Council shall from time to time direct.

SECRETARIES OF THE SECTIONS.

ART. 16. The Secretaries of the Sections shall keep the records of their respective Sections, and, at the close of the meeting, give the same, including the records of subsections, to the General Secretary. They shall also be the Secretaries of the sectional committees. The Secretaries shall have seniority in order of their continuous membership in the Association.

VACANCIES.

ART. 17. In case of a vacancy in the office of President, the senior Vice-President shall preside, as provided in Article 10, until the General Com-

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mittee can be assembled and the vacancy filled by election. Vacancies in the offices of Vice-President, Permanent Secretary, Secretary of the Council, Secretaries of the Sections, and Treasurer, shall be filled by the Council by ballot.

COUNCIL.

ART. 18. The Council shall consist of the Past Presidents, and the Vice Presidents of the last two meetings, together with the President, the Vice-Presidents, the Permanent Secretary, the General Secretary, the Secretary of the Council, the Secretaries of the Sections, and the Treasurer of the current meeting, of one fellow elected from each Section by ballot on the first day of its meeting, of one fellow elected by each affiliated society, and one additional fellow from each affiliated society having more than twenty-five members who are fellows of the Association, and of nine fellows elected by the Council, three being annually elected for a term of three years. The members present at any regularly called meeting of the Council, provided there are at least five, shall form a quorum for the transaction of business. The Council shall meet on the day preceding each annual meeting of the Association, and arrange the program for the first day of the sessions. The time and place of this first meeting shall be designated by the Permanent Secretary. Unless otherwise agreed upon, regular meetings of the Council shall be held in the Council room at 9 o'clock A. M., on each day of the meeting of the Association. Special meetings of the Council may be called at any time by the President. The Council shall be the board of supervision of the Association, and no business shall be transacted by the Association that has not first been referred to, or originated with, the Council. The Council shall decide which papers discussions, and other proceedings shall be published, and have the general direction of the publications of the Association; manage the financial affairs of the Association; arrange the business and programs for General Sessions; suggest subjects for discussion, investigation or reports; elect members and fellows; and receive and act upon all invitations extended to the Association and report the same at a General Session of the Association. The Council shall receive all reports of Special Committees and decide upon them, and only such shall be read in General Session as the Council shall direct. The Council shall appoint at each meeting the following subcommittees who shall act, subject to appeal to the whole Council,

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until their successors are appointed at the following meeting: 1, on Papers and Reports; 2, on Members; 3, on Fellows.

GENERAL COMMITTEE.

ART. 19. The General Committee shall consist of the Council and one member or fellow elected by each of the Sections, who shall serve until their successors are elected. It shall be the duty of the committee to meet at the call of the President and elect the general officers for the following meeting of the Association. It shall also be the duty of this committee to fix the time and place for the next meeting. The Vice-President and Secretary of each Section shall be recommended to the General Committee by the Sectional Committee.

MEETINGS.

ART. 20. The Association shall hold a public meeting annually for one week or longer, at such time and place as may be determined by vote of the General Committee, and the preliminary arrangements for each meeting shall be made by the Local Committee, in conjunction with the Permanent Secretary and such other persons as the Council may designate.

But, if suitable preliminary arrangements cannot be made, the Council may afterwards change the time and place appointed by the General Committee, if such change is believed advisable by two-thirds of the members present.

ART. 21. A General Session shall be held at 10 o'clock A. M., on the first day of the meeting, and at such other times as the Council may direct.

SECTIONS AND SUBSECTIONS.

ART. 22. The Association shall be divided into Sections, namely:—A, *Mathematics and Astronomy*; B, *Physics*; C, *Chemistry, including its application to Agriculture and the Arts*; D, *Mechanical Science and Engineering*; E, *Geology and Geography*; F, *Zoology*; G, *Botany*; H, *Anthropology and Psychology*; I, *Social and Economic Science*; K, *Physiology and Experimental Medicine*; L, *Education*. The Council shall have power to consolidate any two or more Sections temporarily, and such consolidated Sections shall be presided over by the senior Vice-President and Secretary of the Sections comprising it.

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SECTIONAL COMMITTEES.

ART. 23. Immediately on the organization of a Section there shall be a member or fellow elected by ballot after open nomination, who, with the Vice-President and Secretary and the preceding Vice President and the Presidents and Secretaries of those affiliated societies which shall be designated by the Council and the members or fellows elected by ballot at the four preceding meetings, shall form its Sectional Committee. The Sectional Committees shall have power to fill vacancies in their own numbers. Meetings of the Sections shall not be held at the same time with a General Session. The Sectional Committee may invite distinguished foreign associates present at any meeting to serve as honorary members of said Committee.

ART. 24. The Sectional Committee of any Section may at its pleasure form one or more temporary Subsections, and may designate the officers thereof. The Secretary of a Subsection shall, at the close of the meeting, transmit his records to the Secretary of the Section.

ART. 25. No paper shall be read in any Section or Subsection until it has been placed on the program of the day by the Sectional Committee.

ART. 26. The Sectional Committees shall arrange and direct the business of their respective Sections. They shall prepare the daily programs and give them to the Permanent Secretary for printing at the earliest moment practicable. No titles of papers shall be entered on the daily programs except such as have passed the Committee. No change shall be made in the program for the day in a Section without the consent of the Sectional Committee. The Sectional Committee may refuse to place the title of any paper on the program; but every such title, with the abstract of the paper or the paper itself, must be referred to the Council with the reasons why it was refused. The Sectional Committee shall also make nominations to the General Committee for Vice-President and Secretary of their respective Sections as provided for in Article 19.

ART. 27. The Sectional Committees shall examine all papers and abstracts referred to the Sections, and they shall not place on the program any paper inconsistent with the character of the Association; and to this end they have power to call for any paper, the character of which may not be sufficiently understood from the abstract submitted.

PAPERS AND COMMUNICATIONS.

ART. 28. All members and fellows must forward to the Secretary of the proper Section or to the Permanent Secretary, as early as possible, and when practicable before the convening of the Association, full titles of all the papers which they propose to present during the meeting, with a statement of the time that each will occupy in delivery, and also such abstracts of their contents as will give a general idea of their nature; and no title shall be considered by a Sectional Committee until an abstract of the paper or the paper itself has been received.

ART. 29. If the author of any paper be not ready when called upon, in the regular order of the official program, the title may be dropped to the bottom of the list.

ART. 30. Whenever practicable, the proceedings and discussions at General Sessions, Sections and Subsections, shall be reported by professional reporters, but such reports shall not appear in print as the official reports of the Association unless revised by the Secretaries.

PRINTED PROCEEDINGS.

ART. 31. The Permanent Secretary shall have the Proceedings of each meeting printed in an octavo volume as soon after the meeting as possible, beginning one month after adjournment. Authors must prepare their papers or abstracts ready for the press, and these must be in the hands of the Secretaries of the Sections before the final adjournment of the meeting, otherwise only the titles will appear in the printed volume. The Council shall have power to order the printing of any paper by abstract or title only. Whenever practicable, proofs shall be forwarded to authors for revision. If any additions or substantial alterations are made by the author of a paper after its submission to the Secretary, the same shall be distinctly indicated. Illustrations must be provided for by the authors of the papers, or by a special appropriation from the Council. Immediately on publication of the volume, a copy shall be forwarded to every member and fellow of the Association who shall have paid the assessment for the meeting to which it relates, and it shall also be offered for sale by the Permanent Secretary at such price as may be determined by the Council. The Council shall also designate the institutions to which copies shall be distributed.

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LOCAL COMMITTEE.

ART. 32. The Local Committee shall consist of persons interested in the objects of the Association and residing at or near the place of the proposed meeting. It is expected that the Local Committee, assisted by the officers of the Association, will make all essential arrangements for the meeting, and issue a circular giving necessary particulars, at least one month before the meeting.

LIBRARY OF THE ASSOCIATION.

ART. 33. All books and pamphlets received by the Association shall be in charge of the Permanent Secretary, who shall have a list of the same printed and shall furnish a copy to any member or fellow on application. Members and fellows who have paid their assessments in full shall be allowed to call for books and pamphlets, which shall be delivered to them at their expense on their giving a receipt agreeing to make good any loss or damage, and to return the same free of expense to the Permanent Secretary at the time specified in the receipt given. All books and pamphlets in circulation must be returned at each meeting. Not more than five books, including volumes, parts of volumes, and pamphlets, shall be held at one time by any member or fellow. Any book may be withheld from circulation by order of the Council. [The Library of the Association was, by vote of the Council in 1895, placed on deposit in the Library of the University of Cincinnati, Ohio. Members can obtain the use of books by writing to the Librarian of the University Library, Cincinnati, Ohio.]

ADMISSION FEE AND ASSESSMENTS.

ART. 34. The admission fee for members shall be five dollars in addition to the annual dues.

ART. 35. The annual dues for members and fellows shall be three dollars.

ART. 36. Any member or fellow who shall pay the sum of fifty dollars to the Association, at any one time, shall become a Life Member, and as such shall be exempt from all further assessments, and shall be entitled to the Proceedings of the Association. All money thus received shall be invested as a permanent fund, the income of which, during the life of the member, shall form a part of the general fund of the Association;

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but, after his death, shall be used only to assist in original research, unless otherwise directed by unanimous vote of the Council. (New members becoming life members must pay the admission fee of five dollars.)

ART. 37. All fees and dues must be paid to the Permanent Secretary, who shall give proper receipts for the same.

ACCOUNTS.

ART. 38. The accounts of the Permanent Secretary and of the Treasurer shall be audited annually by Auditors appointed by the Council.

ALTERATIONS OF THE CONSTITUTION.

ART. 39. No part of this Constitution shall be amended or annulled, without the concurrence of three-fourths of the members and fellows present in General Session, after notice given at a General Session of a preceding meeting of the Association.

MEMBERS AND FELLOWS
OF THE
AMERICAN ASSOCIATION
FOR THE
ADVANCEMENT OF SCIENCE.

PATRONS.

[Persons contributing one thousand dollars or more to the Association are classed as Patrons, and are entitled to the privileges of members and to the publications. The names of Patrons are to remain permanently on the list.]

THOMPSON, MRS. ELIZABETH, Stamford, Conn. (22). (Died July, 1899.)

LILLY, GEN. WILLIAM, Mauch Chunk, Pa. (28). (Died December 1, 1893.)

HERRMAN, MRS. ESTHER, 59 West 56th Street, New York, N. Y. (29).

McMILLIN, EMERSON, 40 Wall Street, New York, N. Y. (37).

HONORARY FELLOW.

[See ARTICLE VI of the Constitution.]

*WESTINGHOUSE, GEORGE, Pittsburg, Pa. (50). 1902. **D**

MEMBERS AND FELLOWS.

The names designated by an asterisk (*) are those of Fellows. (See ARTICLE IV of the Constitution.) The number in parenthesis indicates the meeting at which the Member joined the Association; the date following is the year when made a Fellow; the black letters at end of line are those of the Sections to which the Member or Fellow belongs. When the name is given in small capitals, it designates that the Member or Fellow is also a Life Member. Any Member or Fellow may become a Life Member by the payment of fifty dollars. (New members becoming Life Members must pay the admission fee of five dollars.) The income of the money derived from a life membership is used for the general purposes of the Association during the life of the Member; afterwards it is to be used to aid in original research. Life Members are exempt from the annual assessment, and are entitled to the publications. The names of Life Members are printed in small capitals in the regular list of Members and Fellows.

The Constitution requires that the names of all Members two years in arrears shall be omitted from the list, but their names will be restored on payment of arrearages. Members not in arrears are entitled to the publications of the Association, including the journal *Science*. (\$1.00 foreign postage on *Science* extra.)

[NOTE.—The omission of an address in the following list indicates that letters mailed to that last printed were returned as uncalled for. Information as to the present address of the members so indicated is requested by the PERMANENT SECRETARY.]

- Aaronson, Dr. A., Jewish Agricultural Experiment Station, Haifa, Palestine, Turkey, Asia. (61). **G**
- Abadie, Eugene H., Consulting Engineer, Third National Bank Building, St. Louis, Mo. (58). **D**
- *Abbe, Professor Cleveland, U. S. Weather Bureau, Baltimore, Md. (16). 1874. **A B**
- *Abbe, Cleveland, Jr., Ph. D., U. S. Weather Bureau, Washington, D. C. (44). 1899. **E**
- *Abbe, Robert, M. D., 13 West 50th St., New York, N. Y. (36). 1892. **K**
- *Abbot, Charles G., Smithsonian Institution, Washington, D. C. (49). 1902. **B**
- ABBOT, E. STANLEY, M. D., First Assistant Physician, McLean Hospital, Waverly, Mass. (54). **K**
- *Abbott, Alexander Crever, M. D., University of Pennsylvania, Philadelphia, Pa. (52). 1905. **K**
- Abbott, Amos W., M. D., 21 South 10th St., Minneapolis, Minn. (60). **K**
- Abbott, Edwin K., M. D., Monterey, Cal. (60). **K**
- Abbott, Edwina, Lane, Kansas. (61).
- Abbott, Frank L., Professor of Physical Sciences, State Normal School, Greeley, Colo. (50). **B E**
- *Abbott, James Francis, Ph. D., Professor of Zoology, Washington University, St. Louis, Mo. (58). 1910. **F**
- Abbott, Samuel A. B., Villa Lontana, via Cassia, Rome, Italy. (60).
- Abbott, Theodore Sperry, C. E., Saltillo, Coahuila, Mexico. (52). **D**
- *Abel, John J., M. D., Professor of Pharmacology, Johns Hopkins University, Baltimore, Md. (51). 1902. **C K**
- Abercrombie, Ronald Taylor, M. D., 4 E. Preston St., Baltimore, Md. (60). **K**
- Abraham, Abraham, 420 Fulton St., Brooklyn, N. Y. (43). **I**
- Abrams, Duff Andrew, C. E., Laboratory of Applied Mechanics, University of Illinois, Urbana, Ill. (60). **D**
- *Abrams, LeRoy, Assistant Professor of Botany, Stanford University, Cal. (54). 1909. **G**
- Abt, Joseph L., M. D., 733 South Halsted St., Chicago, Ill. (58). **K**

MEMBERS AND FELLOWS.

- *Acheson, Edward Goodrich, President, International Acheson Graphite Company, Niagara Falls, N. Y. (50). 1903. **C**
- Achorn, Kendall Lincoln, 178 Huntington Ave., Boston, Mass. (60). **K**
- Ackerman, Ernest R., C. E., 506 W. 8th St., Plainfield, N. J. (60). **D**
- Acland F. A., Deputy Minister of Labor for Canada, Ottawa, Ontario, Canada. (60) **I**
- *Acree, Solomon Farley, Ph. D., Associate Professor of Chemistry, Johns Hopkins University, Baltimore, Md. (58). 1910. **C**
- Adam, George, M. D., 2937 Fillmore St., San Francisco, Cal. (60.) **K**
- Adams, Arthur K., E. M., General Land Office, Phoenix, Ariz. (58). **D E**
- Adams, C. F., Entomologist, Agricultural Experiment Station, University of Arkansas, Fayetteville, Ark. (54). **F**
- *Adams, Charles Christopher, Ph. D., Associate in Animal Ecology, University of Illinois, Urbana, Ill. (50). 1903. **F**
- *Adams, Charles Francis, Head, Department of Sciences, Central High School, Detroit, Mich. (53). 1906 **B C**
- *Adams, Comfort A., Professor of Electrical Engineering, Harvard University, Cambridge, Mass. (47). 1910. **B E**
- *Adams, Cyrus C., 1043 Southern Boulevard, New York, N. Y. (54) 1906. **E**
- Adams, Edward Dean, Empire Building, 71 Broadway, New York, N. Y. (49).
- *Adams, Edwin Plimpton, Ph. D., Professor of Physics, Princeton University, Princeton, N. J. (58). 1910. **A B C**
- *Adams, Frank D., McGill University, Montreal, Canada. (60). 1910. **E**
- Adams, Franklin L., Magnetic Observatory, U. S. Coast Survey, Sitka, Alaska. (61). **A**
- Adams, Frederick Carhart, 5 Hillside Road, Natick, Mass. (50). **B C L**
- Adams, George E., 184 La Salle St., Chicago, Ill. (58).
- Adams, Huntington, M. E., Apartado 127, Oaxaco, Mexico. (60). **D**
- Adams, J. Pinckney H., Fairhaven, Vermont. (60). **K**
- Adams, Matthew Prior, Instructor in Physics and Chemistry, State Normal School, Box 555, New Britain, Conn. (54). **B C**
- *Adams, Maxwell, Ph. D., Professor of Chemistry, University of Nevada, Reno, Nevada. (57.) 1909. **C**
- Addison, Wm. H. F., Logan Hall, University of Pennsylvania, Philadelphia, Pa., (60). **K**
- Aderhold, Thomas Maze, M. D., El Reno, Okla. (58). **K**
- *Adler, Cyrus, Ph. D., 2041 North Broad St., Philadelphia, Pa. (54). 1906. **H**
- Adler, Herman M., Danvers State Hospital, Hathorne, Mass. (60).
- *Adler, Isaac, M. D., 22 East 62d St., New York, N. Y. (49). 1903. **FK**
- *Adler, Leon N., Ph. D., 100 William St., New York, N. Y. (56). 1909. **C**
- *Adriance, John S., Williamstown, Mass. (39). 1895. **C**
- Adsit, Charles George, E. E., Magdalena, Sonora, Mexico. (60). **D**
- *Agnew, Paul G., Bureau of Standards, Washington, D. C. (54). 1910. **B**

- Agrelius, Frank U. G., 1133 R. I. St., Lawrence, Kans. (60). **C**
- *Aguilera, José G., Director, Geological Institute of Mexico, 6a Del Cipres No. 176, Mexico, D. F., Mexico. (53). 1905. **E**
- Ahern, Michael J., S. J., Universitatstrasse 8, Innsbruck, Tyrol, Austria. (57). **E**
- Aikin, Joseph M., M. D., Professor of Mental Diseases, University of Nebraska College of Medicine, Omaha, Nebr. (55). **K**
- *Aikins, Prof. H. Austin, Western Reserve University, Cleveland, Ohio. (58). 1910. **H L**
- Ailes, Hon. Milton E., Riggs National Bank, Washington, D. C. (52). **I**
- Ainslie, C. N., Fort Collins, Colo. (60). **F**
- Ainslie, George G., Clemson Agricultural College, Clemson College, S. C. (58). **F**
- Ainsworth, Herman Reeve, M. D., Addison, N. Y. (51). **I K**
- *Aitken, Robert G., Lick Observatory, Mt. Hamilton, Cal. (53). 1906. **A**
- Akeley, Lewis E., Professor of Physics and Chemistry, University of South Dakota, Vermilion, S. Dak. (51). **B C**
- Akerley, Arthur W., M. D., National Soldiers Home Hospital, Milwaukee, Wis. (58). **K**
- Akerlind, Gustav Alfred, 3618 Lexington St., Chicago, Ill. (58). **F**
- Akers, Oscar Perry, Meadville, Pa. (60). **A**
- Albert, Harry Lee, Professor of Biology, State Normal School, Cape Girardeau, Mo. (53). **F G**
- *Albert, Henry, M. D., Professor of Pathology and Bacteriology, State University of Iowa College of Medicine, Iowa City, Iowa. (57). 1910. **K**
- Albrecht, Emil Poole, Secretary of the Bourse, 1523 North 17th St., Philadelphia, Pa. (51). **A D**
- *Albrecht, Sebastiau, Lick Observatory, Mt. Hamilton, Cal. (52). 1906. **A**
- Albree, Chester B., M. E., 1115 Market St., Allegheny, Pa. (50). **D**
- Alcott, Rev. William P., Boxford, Mass. (60).
- Alden, Miss Isabel, 24 Waldron Ave., Summit, N. J. (60). **G**
- *Alden, John, Chemist, Pacific Mills, Lawrence, Mass. (36). 1898. **C**
- *Alderson, Victor C., President, Colorado School of Mines, Golden, Colo. (50). 1903. **A D**
- Aldrich, Fred Davis, Worcester Academy, Worcester, Mass. (60). **A**
- Aldrich, Loyal Blaine, Smithsonian Institution, Washington, D. C. (61). **A B**
- *Aldrich, Wm. Sleeper, M. E., Director, Thomas S. Clarkson Memorial School of Technology, Potsdam, N. Y. (43). 1897. **D I L**
- Aldridge, Walter Hull, E. M., Trail, B. C., Canada. (60). **D**
- Alexander, Daniel Basil William, 1000 Date St., Los Angeles, Cal. (57). **C**
- Alexander, H. B., University of Nebraska, Lincoln, Nebr. (58). **H**
- Alexander, Harry, E. E., M. E., 18-20 West 34th St., New York, N. Y. (50). **D**
- Alexander, Hugh S., Macalister College, St. Paul, Minn. (60).
- Alexander, Kay, C. E., Mandan, North Dakota. (58). **D**

- Alexander, Robert Lee, C. E., Chehalis, Washington. (60). **D**
- Alexander, Samuel, M. D., 68 West 55th St., New York, N. Y. (60). **K**
- Alexander, Wm. S., Church St. and College Ave., Oxford, Ohio. (58). **K**
- *Aley, Robert Judson, Ph. D., Indiana University, Bloomington, Ind. (49).
1906. **A**
- Alfred, C. Morton, M. D., 640 N. Columbus St., Lancaster, Ohio. (60). **K**
- Alger, John L., R. I. Normal School, Providence, R. I. (60)
- Alkier, Stanislaus Joseph, M. D., 6 Sumner Ave., Brooklyn, N. Y.
(60). **K**
- Allabach, Miss Lulu Florence, Teacher of Botany, 5th Avenue High
School, Pittsburg, Pa. (52). **F G**
- Allan, John A., Geological Department, Massachusetts Institute of
Technology, Boston, Mass. (60). **E**
- Allderdice, Wm. H., Commander, U. S. N., care Navy Department,
Washington, D. C. (33). **D**
- Alleger, Walter W., M. D., 143 W St. N. W., Washington, D. C. (60). **K**
- *Alleman, Gellert, Ph. D., Swarthmore College, Swarthmore, Pa. (50).
1909. **C**
- *Allen, Bennet Mills, Ph. D., Assistant Professor of Anatomy, University
of Wisconsin, Madison, Wis. (54). 1906. **F K**
- *Allen, Charles Elmer, 2014 Chamberlin Ave., Madison, Wis. (55).
1908. **G**
- Allen, Charles Metcalf, Assistant Professor of Experimental Engineering,
Worcester Polytechnic Institute, Worcester, Mass. (52). **D**
- *Allen, David R., Associate Professor of Mathematics, University of Utah,
Salt Lake City, Utah. (57). 1909. **A**
- *Allen, Edwin West, Ph. D., Editor, *Experiment Station Record*, U. S.
Department of Agriculture, Washington, D. C. (52). 1909. **C**
- Allen, Miss Eleanor W., 12 Commonwealth Ave., Boston, Mass. (60).
- *Allen, Frank, Ph. D., Professor of Physics, University of Manitoba, Winni-
peg, Manitoba, Canada. (49). 1903. **B**
- Allen, Glover Morrill, Ph. D., 16 Oxford St., Cambridge, Mass. (58). **F**
- Allen, Harrison S., 287 Grove St., Waterbury, Conn. (60). **C**
- Allen, James Lane, 130 West 57th St., New York, N. Y. (57). **I**
- Allen, Joel Asaph, American Museum of Natural History, New York,
N. Y. (60).
- Allen, John H., E. M., 202 Edgar Place, Elizabeth, N. J. (60). **D**
- *Allen, Joseph, 9 Myrtle St., White Plains, N. Y. (58). 1909. **A**
- *Allen, Reginald Bryant, Ph. D., Professor of Mathematics, Kenyon
College, Gambier, Ohio. (58). 1909. **A**
- Allen, S. C., 81 Lake Ave., Rochester, N. Y. (60). **C**
- Allen, Walter S., care General Chemical Co., Laurel Hill, L. I., N. Y.
(58). **C**
- Allen, William Frederick, 180 Scotland Road, South Orange, N. J. (55).
- Aller, Henry D., Superintendent and Director, U. S. Fisheries Laboratory,
Beaufort, N. C. (57). **F**

- *Allis, Edward Phelps, Jr., LL. D., Palais de Carnolès, Mentone, South France. (52). 1905. **F**
- *Allison, Charles Edward, M. D., Elysburg, Pa. (51). 1906. **K**
Allison, Samuel B., 6035 Drexel Ave., Chicago, Ill. (58).
- Allorge, M. M., Lecturer in Geomorphology, Oxford, England. (60).
- *Almy, Frank Fayette, Ph. D., Professor of Physics, Iowa College, Grinnell, Iowa. (57). 1909. **B**
- *Almy, John E., Ph. D., Instructor in Physics, University of Nebraska, Lincoln, Nebr. (50). 1901. **B**
- Alpers, Martin Edward, Jr., 94 Randolph Ave., Dover, N. J. (57). **K**
Alpers, William C., 495 Columbus Ave., New York, N. Y. (50). **I**
- *Alsberg, Carl Lucas, M. D., Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C. (55). 1908. **C**
- Alsop, E. B., 1502 20th St. N. W., Washington, D. C. (50). **D**
- Alspach, Edmund Franklin, 455 West Sixth Ave., Columbus, Ohio. (48). **H**
- Altamirano, Dr. Fernando, Instituto Medico Nacional, Esquina de Baldaras y Ayuntamiento num 1202, Mexico, D. F., Mexico. (53). **G**
- Alvord, John Watson, C. E., 5447 Kimbark Ave., Chicago, Ill. (58). **D**
- Alway, Frederick James, University of Nebraska, Lincoln, Nebr. (60). **C**
- Alwine, John, Jr., Associate Manager, Baltimore Chrome Works, 1348 Block St., Baltimore, Md. (54). **C**
- *Alwood, Prof. Wm. Bradford, "Stonehenge," Rio Road, Charlottesville, Va. (39). 1891. **C G**
- *Amberg, Emil, M. D., 270 Woodward Ave., Detroit, Mich. (58). 1909. **H K**
- Ames, Charles W., President, St. Paul Institute of Arts and Sciences, St. Paul, Minn. (61). **L**
- Ames, Edward Scribner, Ph. D., Assistant Professor of Philosophy, University of Chicago, Chicago, Ill. (58).
- *Ames, Oakes, Director, Botanic Garden of Harvard University, North Easton, Mass. (50). 1905. **G**
- *Ami, H. M., Geological Survey of Canada, Ottawa, Canada. (54). 1906. **E F G H**
- Amstutz, Noah Steiner, E. E., Valparaiso, Ind. (60). **D**
- Anders, Howard S., M. D., 2035 Walnut St., Philadelphia, Pa. (51). **B K L**
- Anderson, A. J. C., 127 Water St., New York, N. Y. (49).
- *Anderson, Alexander P., 5463 Washington Ave., Chicago, Ill. (45). 1890. **G**
- Anderson, David Guy, C. E., 1332 Walnut St., Philadelphia, Pa. (60). **D**
- *Anderson, Douglas S., Professor of Electrical Engineering, Tulane University, New Orleans, La. (49). 1910. **B D**
- Anderson, F. Paul, M. E., Director, School of Mechanical and Electrical Engineering, State University of Kentucky, Lexington, Ky. (58). **D**
- *Anderson, Frank, E. M., 2 Henry Flats, Salt Lake City, Utah. (50). 1906. **D E**

MEMBERS AND FELLOWS.

- Anderson, Frank P., Epworth Seminary, Epworth, Iowa. (46).
 Anderson, George Gray, C. E., 518-519 Equitable Building, Denver, Colo. (60). **D**
- *Anderson, John F., M. D., U. S. Public Health and Marine Hospital Service, Washington, D. C. (58). 1908. **K**
- Anderson, Robert B., M. D., 925 Sterling Place, Brooklyn, N. Y. (60). **K**
- Anderson, Robt. Van Vleck, U. S. Geological Survey, Washington, D. C. (57). **E F**
- Anderson, Ross, M. D., Sharon Block, Salt Lake City, Utah. (60). **K**
- Anderson, Samuel Herbert, care Occidental College, Los Angeles, Cal. (58). **B**
- *Anderson, William G., M. D., Director, Yale University Gymnasium, New Haven, Conn. (52). 1906. **H K**
- Anderson, Winslow, M. D., President, College of Physicians and Surgeons of San Francisco, 1065 Sutter St., San Francisco, Cal. (51). **K**
- Andrew, Jas. D., E. E., 15 Lee Ave., Chestnut Hill, Mass. (58). **D**
- *Andrews, Clement Walker, Librarian, The John Crerar Library, Chicago, Ill. (53). 1908. **C**
- Andrews, Daniel Marshall, C. E., U. S. Engineer Office, Montgomery, Ala. (60). **D**
- *Andrews, Ethan Allen, Ph. D., Professor of Zoology, Johns Hopkins University, Baltimore, Md. (58). 1909. **F**
- Andrews, Mrs. E. A., 821 St. Paul St., Baltimore, Md. (60). **F H**
- *Andrews, Frank Marion, Ph. D., Assistant Professor of Botany, Indiana University, Bloomington, Ind. (52). 1903. **G**
- Andrews, Horace, C. E., 125 Lancaster St., Albany, N. Y. (60). **D**
- *Andrews, Launcelot W., Ph. D., 823 Brady St., Davenport, Iowa. (58). 1909. **C**
- Andrews, Lucille, Woodbury, N. J. (61). **G**
- Andrews, Wm. Edward, Principal, Township High School, Taylorville, Ill. (52). **D**
- Andrews, William Symes, care General Electric Company, Schenectady, N. Y. (50). **D E**
- Andrews, W. W., LL.D., Mt. Allison University, Sackville, N. B., Canada. (60). **C**
- Aneker, Walter, 203 Ridgewood Road, Roland Park, Baltimore, Md. (60).
- Angela, Sister Helen, College of St. Elizabeth, Convent Station, N. J. (58). **E G**
- Angell, William R., 1011 Ashland Block, Chicago, Ill. (58).
- Angier, Roswell Parker, Yale University, New Haven, Conn. (57). **K**
- Angle, Edward H., M. D., 58 Bellevue Place, New London, Conn. (53). **F**
- Ansley, William Bailey, M. D., 34 Indiana Ave., Saltsburg, Pa. (60). **K**
- Anthony, Chas., Jr., C. E., Gen. Mgr., Bahia Blanca Waterworks Co., Casilla de Correo 149, Bahia Blanca, Argentine Rep., S. A. (60). **D**
- Anthony, Gardner Chace, Professor of Technical Drawing, and Dean, Engineering Department of Tufts College, Tufts College, Mass. (56). **D L**

- Anthony, Mrs. S. Reed, 113 Commonwealth Ave., Boston, Mass. (60).
- Antisell, Frank Linden, M. E., Perth Amboy, N. J. (58). **D**
- Apfel, Philip F., Raeco, Wash. (58). **C**
- App, John C., Box 464, Charleston, W. Va. (60). **C**
- Apple, A. Thomas G., Director, Daniel Scholl Observatory, Lancaster, Pa. (61). **A**
- Apple, Joseph H., President, Woman's College, Frederick, Md. (52). **I**
- *Appleton, John Howard, Professor of Chemistry, Brown University, Providence, R. I. (50). 1901. **C**
- Appleton, William Day, E. E., Apartado 23, Zamora, Michoacan, Mexico. (58). **D**
- Archer, William J., Superior, Wis. (58). **C**
- Archibald, Eben H., Bowne Hall of Chemistry, Syracuse University, Syracuse, N. Y. (60). **C**
- *Archibald, Raymond Clare, Brown University, Providence, R. I. (54). 1906. **A**
- Archinard, Paul E., M. D., Professor of Neurology, Tulane University, New Orleans, La. (60). **K**
- Arday, Edward G. R., Faculty of Applied Science, University of Toronto, Toronto, Canada. (60). **C**
- *Argall, Philip, 505 Majestic Building, Denver, Col. (54). 1906. **C E**
- Argollo, Miguel T., C. E., Caixa 89, Bahia, Brazil, S. A. (60). **D**
- Armfield, Frank, Monroe, N. C. (55). **I**
- Armitage, Thomas L., M. D., Princeton, Minn. (51). **K**
- Arms, Burdett L., M. D., 30 Huntington Ave., Boston Mass. (60) **K**
- *Armsby, Henry Prentiss, Ph. D., Director, Institute of Animal Nutrition, Pennsylvania State College, State College, Pa. (52). 1903. **C**
- Armstrong, E. J., M. E., 954 West 9th St., Erie, Pa. (58). **D**
- Armstrong, Dr. John M., 436 Portland Ave., St. Paul, Minn. (60).
- Armstrong, Lyndon K., E. M., Editor, *Northwest Mining News*, 615 Hyde Block, Spokane, Wash. (58). **D**
- ARMSTRONG, SAMUEL T., M. D., Katonah, N. Y. (57). **K**
- Arnold, Mrs. Alma C., 2025 Broadway, New York, N. Y. (58). **K**
- *Arnold, Bion Joseph, 4713 Kimbark Ave., Chicago, Ill. (50). 1903. **D**
- Arnold, Ernst Hermann, M. D., Director, New Haven Normal School of Gymnastics, 46 York Square, New Haven, Conn. (52). **K**
- Arnold, Felix, Ph. D., 34 St. Nicholas Place, New York, N. Y. (58). **H L**
- Arnold, Harold De Forrest, Mt. Allison University, Sackville, N. B., Canada. (57). **B**
- *Arnold, Ralph, Ph. D., 726 H. W. Hillman Building, Los Angeles, Cal. (51). 1906. **E**
- Army, H. V., 421 Superior Ave., N. E., Cleveland, Ohio. (60). **C**
- *Arthur, J. C., Agricultural Experiment Station, Purdue University, Lafayette, Ind. (21). 1883. **G**
- Ashbrook, Donald Sinclair, 16 Willard St., Wilmington, Del. (51). **C**
- *Ashley, George Hall, Capitol Annex, Nashville, Tenn. (51) 1903. **E F**

MEMBERS AND FELLOWS.

- Ashmead, Percy Herbert, C. E., Plandome, Manhasset, L. I., N. Y. (60). **D**
- Ashworth, D. Irving, P. O. Box 38, Wappinger's Falls, N. Y. (58). **C**
- Aspinwall, John, Newburgh, N. Y. (49).
- Astor, Col. John Jacob, 23 West 26th St., New York, N. Y. (57). **I**
- Atkins, Martin D., 269 Forest Ave., River Forest, Ill. (48). **B**
- Atkinson, Albert A., E. E., Professor of Physics and Electrical Engineering, Ohio University, Athens, Ohio. (60). **D**
- Atkinson, Daniel A., M. D., 132 Oakwood Ave., West View, Pa. (56). **K**
- Atkinson, Frederick W., Ph. D., President, Polytechnic Institute, Brooklyn, N. Y. (60).
- *Atkinson, George Francis, Ph. D., Professor of Botany, Cornell University, Ithaca, N. Y. (39). 1892. **G**
- Atkinson, J. W., Union Sugar Co., Betteravia, Cal. (60). **C**
- Atkinson, John B., Earlington, Ky. (26). **D**
- At Lee, John L., M. D., Lancaster, Pa. (60). **K**
- Attix, James C., M. D., 2355 N. 13th St., Philadelphia, Pa. (60). **K**
- *Atwell, Charles B., Northwestern University, Evanston, Ill. (36). 1890. **G**
- *Atwood, Wallace Walter, Ph. D., Assistant Professor of Physiography and General Geology, University of Chicago, Chicago, Ill. (58). 1910. **E L**
- Aue, Joseph E., M. E., care Pacific Gas and Electric Co., Bayshore District, San Francisco, Cal. (58). **D**
- Aurness, Peter A., M. D., 1937 Park Ave., Minneapolis, Minn. (60). **K**
- Austin, Clift F., Central Nueva Luisa, Jovellanos, Cuba. (54). **G**
- Austin, F. E., E. E., P. O. Box 293, Hanover, N. H. (57). **D**
- *Austin, Oscar P., Chief, Bureau of Statistics, Department of Commerce and Labor, Washington, D. C. (51). 1907. **I**
- *Avery, Samuel, Ph. D., Director, Chemical Laboratories, University of Nebraska, Lincoln, Nebr. (57). 1908. **C**
- Aycrigg, Wm. Anderson, C. E., 520 Bee Building, Omaha, Nebr. (58). **D**
- Aydellott, Chas. G. B., 4717 Ridgeway Ave., Norwood, Ohio. (60). **C**
- Ayer, Edward Everett, 1515 Railway Exchange Building, Chicago, Ill. (37). **H**
- Aylmer, Arthur L., M. D., 329 Central Ave., Minneapolis, Minn. (60). **K**
- Aymar, J., (57).
- Ayres, George Frederic, Ph. D., President, Lindenwood Female College, St. Charles, Mo. (58).
- Ayres, Horace B., Aitkin, Minn. (40).
- Ayres, Thomas Willard, Bureau of Plant Industry, U. S. Dept. of Agriculture, Washington, D. C. (60). **G**
- *Babasinian, Vahan S., Ph. D., Instructor in Organic Chemistry, Lehigh University, South Bethlehem, Pa. (57). 1910. **C**
- Babb, Maurice Jeffries, Ph. D., Box 6, College Hall, University of Pennsylvania, Philadelphia, Pa. (60). **A**

- Babcock, Earle Brownell, 5546 Madison Ave., Chicago, Ill. (58).
- *Babcock, Earle J., Professor of Chemistry and Dean, College of Mining Engineering, University of North Dakota, Grand Forks, N. Dak. (58). 1910. **C D**
- Babcock, Ernest Browne, Assistant Professor of Plant Pathology, University of California, Berkeley, Cal. (57). **G**
- *Babcock, Stephen Moulton, Ph. D., Professor of Agricultural Chemistry, University of Wisconsin, Madison, Wis. (33). 1885. **C**
- Babcock, William Wayne, M. D., 2033 Walnut St., Philadelphia, Pa. (54). **K**
- *Baber, Zonia, Associate Professor of Geography, College of Education, University of Chicago, Chicago, Ill. (54). 1906. **E**
- Bachmann, Frank, State Water Survey, Urbana, Ill. (58). **C**
- Back, Ernest Adna, Ph. D., Bureau of Entomology, U. S. Dept. of Agriculture, Washington, D. C. (58). **F**
- Backus, Cyrus Day, E. E., U. S. Patent Office, Washington, D. C. (60). **D**
- Bacon, Arthur Avery, Professor of Physics, Hobart College, Geneva, N. Y. (53). **B**
- Bacon, Charles Sumner, M. D., 756 Sedgwick St., Chicago, Ill. (58). **K**
- Bacon, Prof. George Preston, Wakefield, R. I. (58). **B**
- Bacon, Paul V., 378 Wabash Ave., Chicago, Ill. (61). **L**
- Baehr, George, 78 West 94th St., New York, N. Y. (57). **K**
- *Baekeland, Leo Hendrik, "Snug Rock," Harmony Park, Youkers, N. Y. (57). 1908. **C**
- Baerecke, John F., M. D., Ph. D., Professor of Biology, Stetson University, De Land, Fla. (50). **F K**
- *Bagg, Rufus Mather, Jr., Ph. D., University of Illinois, Urbana, Ill. (49). 1903. **E**
- BAGGLEY, RALPH, Pittsburg, Pa. (50). **D**
- Bagley, W. C., 611 West Oregon St., Urbana, Ill. (60).
- Bagot, C. G. Seymour, E. E., Quathiaski Cove, B. C., Canada. (60). **D**
- *Bailey, Edgar H. S., Ph. D., Professor of Chemistry, University of Kansas, Lawrence, Kans. (25). 1889. **C K**
- Bailey, Edward P., 32 Silver Road, Brockton, Mass. (52). **E**
- Bailey, Capt. Frank H., U. S. N., care Navy Department, Washington, D. C. (52). **D**
- *Bailey, Solon Irving, Associate Professor of Astronomy, Harvard College Observatory, Cambridge, Mass. (50). 1901. **A**
- *Bailey, Vernon, U. S. Department of Agriculture, Washington, D. C. (52). 1904. **F**
- *Bain, H. Foster, 667 Howard St., San Francisco, Cal. (58). 1909. **E**
- *Bain, Samuel McCutcheon, Professor of Botany, University of Tennessee, Knoxville, Tenn. (50). 1902. **G**
- *Bair, Joseph Hershey, Ph. D., 4224 Chestnut St., Philadelphia, Pa. (52). 1905. **H K**

MEMBERS AND FELLOWS.

- Baird, Arthur C., 505 Lincoln Ave., Pittsburg, Pa. (60). **A**
- *Baird, John Wallace, Ph. D., Professor of Psychology, Clark University, Worcester, Mass. (53). 1905. **H**
- *Baird, Lucy H., 341 South 18th St., Philadelphia, Pa. (54). 1906. **I**
- *Baird, Robert Logan, Troy High School, Troy, Ohio. (53). 1907. **KL**
- Baird, William C., M. D., 1320 No. Tejon St., Colorado Springs, Colo. (60). **K**
- Baker, A. H., V. S., 2537 State St., Chicago, Ill. (58). **KL**
- Baker, B. N., 907 Calvert Building, Baltimore, Md. (60).
- *Baker, Charles Fuller, Pomona College, Claremont, Cal. (54). 1906. **FG**
- Baker, Charles W., M. D., Stanwood, Iowa. (60). **K**
- Baker, Edward Hall, M. D., 5437 Catherine St., Philadelphia, Pa. (58). **K**
- Baker, Eugene, M. D., 108 W. Seneca St., Ithaca, N. Y. (60). **K**
- Baker, Ezra F., Head, Department of Philosophy, Trinity University, Waxahachie, Texas. (57). **H**
- *Baker, Frank, M. D., Superintendent, U. S. National Zoological Park, Washington, D. C. (31). 1886. **FGHIKL**
- Baker, Frank Collins, Curator and Secretary, Chicago Academy of Sciences, Chicago, Ill. (58).
- Baker, Henry B., M. D., R. F. D. 12, Holland, Mich. (58). **IK**
- Baker, Horace Burrington, University of Michigan Museum, Ann Arbor, Mich. (60).
- Baker, Hugh Potter, Pennsylvania State College, State College, Pa. (51). **G**
- *Baker, James H., LL. D., President, University of Colorado, Boulder, Colo. (50). 1903. **I**
- Baker, Leonard T., University of S. C., Columbia, S. C. (60).
- *Baker, Richard Philip, 818 Kirkwood Ave., Iowa City, Iowa. (60). 1910. **A**
- *Baker, Robt. H., Asst. Professor of Astronomy, Brown University, Providence, R. I. (54). 1907. **A**
- Baker, Ross Allen, Professor of Chemistry, Baker University, Baldwin, Kans. (58). **C**
- Baker, Smith, M. D., 37 Winston Building, Utica, N. Y. (54). **K**
- Baker, Wm. C., M. D., Hummelstown, Pa. (60). **K**
- *Bakewell, Charles Montague, P. O. Box 813, Yale Station, New Haven, Conn. (54). 1906. **I**
- Balch, Alfred William, M. D., Assistant Surgeon, U. S. N., Tufts College Medical School, Boston, Mass. (52). **CK**
- *BALCH, EDWIN SWIFT, 1412 Spruce St., Philadelphia, Pa. (51). 1903. **EH**
- Balch, Francis Noyes, Hunneman & Balch, 60 State St., Boston, Mass. (50). **F**
- Balcom, R. Wilfred, Ph. D., Room 307, Custom House, Nashville, Tenn. (58). **C**
- Balcomb, Jean Bart, E. E., 1208 Title and Trust Bldg., Chicago, Ill. (60). **D**

- Baldwin, Prof. Bird T., School of Administration, University of Pittsburgh, Pittsburgh, Pa. (58). **H L**
- Baldwin, C. Kemble, 1040 Old Colony Building, Chicago, Ill. (58). **D**
- Baldwin, Mrs. Gertrude H., 3 Madison Ave., Detroit, Mich. (34). **H**
- Baldwin, Helen, 53 East 20th St., New York, N. Y. (54). **C**
- Baldwin, Herbert B., Analytic and Consulting Chemist, 927 Broad St., Newark, N. J. (43). **C**
- *BALDWIN, S. PRENTISS, 736 Prospect St., Cleveland, Ohio. (47). 1900. **E**
- *BALDWIN, HON. SIMEON E., Chief Justice, Supreme Court of Errors, New Haven, Conn. (50). 1901. **I**
- Baldwin, Wesley Manning, Cornell Medical College, New York, N. Y. (58). **K**
- Balke, Clarence William, 805 Nevada St., Urbana, Ill. (58). **C**
- Ball, Albert, Assistant in Physics, Cooper Union, New York, N. Y. (58).
B
- *Ball, Carleton R., U. S. Department of Agriculture, Washington, D. C. (49). 1902. **G**
- *Ball, Elmer Darwin, Ph. D., Professor of Zoology and Entomology, Utah Agricultural College, Logan, Utah. (50). 1903. **F**
- Ball, Miss Helen Augusta, 43 Laurel St., Worcester, Mass. (50). **F**
- Ball, Michael V., M. D., Warren, Pa. (60). **K**
- Ballard, Caswell A., Curator of Museum, State Normal School, Moorhead, Minn. (51).
- *Balliet, Thomas M., New York University, Washington Square, New York, N. Y. (48). 1903. **H I**
- Ballou, Henry A., Entomologist, Imperial Department of Agriculture, Barbados, B. W. I. (56). **F G**
- Balta, José, E. M., Mogollon 13, Lima, Peru, S. A. (60). **D**
- BALTZELL, WILLIAM HEWSON, Wellesley, Mass. (60).
- Bancroft, Edward E., M. D., Wellesley, Mass. (60). **K**
- *Bancroft, Frank Watts, Ph. D., R. D. Box 81, Concord, Cal. (50). 1907.
F K
- Bancroft, Jessie H., Assistant Director of Physical Training, Department of Education, New York, N. Y. (58). **L**
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- Bancroft, Margaret, Haddonfield, N. J. (61).
- *Bancroft, Wilder Dwight, Ph. D., Professor of Physical Chemistry, Cornell University, Ithaca, N. Y. (50). 1901. **B C**
- Banga, Henry, M. D., 456 La Salle Ave., Chicago, Ill. (60). **K**
- BANGS, LEMUEL BOLTON, M. D., 32 East 51st St., New York, N. Y. (36).
K
- *Bangs, Outram, 20 Pemberton Square, Boston, Mass. (47). 1900. **F**
- *Banker, Howard James, Ph. D., Professor of Biology, Depauw University, Greencastle, Ind. (51). 1905. **G**
- Banks, Chas. S., Box 774, Bureau of Science, Manila, P. I. (57). **F**
- Banks, Harry Pickands, The Rookery, 217 LaSalle St., Chicago, Ill. (58).
C D

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- Banks, John Edwin, C. E., American Bridge Co., Ambridge, Pa. (60). **D**
- Banta, Arthur Mangun, Ph. D., Station for Experimental Evolution, Cold Spring Harbor, L. I., N. Y. (53). **F**
- Banzhaf, Edwin J., Research Laboratory, East 16th St., New York, N. Y. (60). **C K**
- Barber, Herbert S., U. S. National Museum, Washington, D. C. (58). **F**
- Barber, Kate G., Bureau of Chemistry, U. S. Department of Agriculture, Washington, D. C. (60). **C**
- Barber, Thomas C., Audubon Park Sugar Experiment Station, New Orleans, La. (58). **F**
- Barbour, Miss Carrie Adeline, Department of Geology, University of Nebraska, Lincoln, Nebr. (53). **E**
- *Barbour, Erwin Hinckley, Ph. D., Professor of Geology, University of Nebraska, Lincoln, Nebr. (45). 1898. **E**
- *Barbour, Thomas, Museum of Comparative Zoology, Cambridge, Mass. (52). 1907. **F**
- Barck, Carl, M. D., 2715 Locust St., St. Louis, Mo. (52). **K**
- *Bardeen, Charles Russell, M. D., Professor of Anatomy, University of Wisconsin, Madison, Wis. (50). 1901. **F K**
- Bardeen, Charles William, 315 E. Washington St., Syracuse, N. Y. (52).
- *Bardwell, Fred Leslie, Massachusetts Institute of Technology, Boston, Mass. (60). 1910. **C**
- Barger, Thomas M., 2725 59th Court, Cicero, Ill. (58).
- Barhydt, Mrs. P. Hackley, 40 East 70th St., New York, N. Y. (57).
- *Barkan, Adolph, M. D., LL.D., 2209 Laguna St., San Francisco, Cal. (51). 1909. **K**
- *Barker, Lewellys Franklin, M. D., Professor of Medicine, Johns Hopkins University, Baltimore, Md. (57). 1908. **K**
- Barlow, Bronson, N. C. Dept. of Agriculture, Raleigh, N. C. (61). **G**
- Barlow, Elbert S., M. E., 1 Madison Ave., New York, N. Y. (58). **D**
- Barlow, John, Professor of Zoology, Rhode Island College of A. and M. Arts, Kingston, R. I. (51). **F**
- Barlow, William Edward, Virginia Polytechnic Institute, Blacksburg, Va. (60). **C**
- *BARNARD, EDWARD E., Yerkes Observatory, Williams Bay, Wis. (26). 1883. **A**
- Barnes, Carl Lewis, M. D., 1977 Ogden Ave., Chicago, Ill. (58). **K**
- Barnes, Cecil, 1150 Dearborn Ave., Chicago, Ill. (57). **E**
- BARNES, MISS CORA F., (57).
- Barnes, Francis Merriman, Jr., The Sheppard & Enoch Pratt Hospital, Towson, Md. (61). **K**
- Barnes, Edward W., Perth Amboy, N. J. (49).
- Barnes, Fred Asa, Assistant Professor of Civil Engineering, Cornell University, Ithaca, N. Y. (56). **D**
- Barnes, Harry Lee, M. D., Wallum Lake, R. I. (60). **K**
- *Barnes, Howard Turner, Ph. D., Department of Physics, McGill University, Montreal, Canada. (57). 1909. **B**

- Barnes, Thomas Howard, C. E., 321 St. Charles St., New Orleans, La. (60). **D**
- Barnes, William, M. D., Decatur, Ill. (57). **K**
- Barnett, Geo. D., Box 1213, Stanford University, Cal. (60). **C**
- *Barnett, S. J., 7723 Burthe St., New Orleans, La. (58). 1910. **B**
- Barney, Edgar S., C. E., 36 Stuyvesant St., New York, N. Y. (58). **D**
- Barney, Samuel E., C. E., 346 Whitney Ave., New Haven, Conn. (58). **D**
- Barnhart, Arthur M., 4455 Drexel Boulevard, Chicago, Ill. (42).
- Barnhart, J. M., 707 W. Illinois St., Urbana, Ill. (60). **C**
- *Barnhart, John Hudley, M. D., New York Botanical Garden, Bronx Park, New York, N. Y. (49). 1903. **G K**
- *Barnum, Charlotte C., Ph. D., U. S. Department of Agriculture, Washington, D. C. (36). 1896. **A**
- Barnum, William M., 62 Cedar St., New York, N. Y. (57).
- Barr, Charles Elisha, Professor of Biology, Albion College, President, Michigan Academy of Science, Albion, Mich. (50). **F**
- *Barr, John Henry, care of Smith Premier Works, Syracuse, N. Y. (51). 1903. **D**
- Barre, Henry Walter, Associate Professor of Botany and Bacteriology, Clemson Agricultural College, Clemson College, S. C. (58). **G**
- *Barrell, Joseph, Ph. D., Yale University Museum, New Haven, Conn. (51). 1905. **E**
- Barrett, James Theophilus, Cornell University, Ithaca, N. Y. (58). **G**
- Barrett, Otis Warren, Director of Agriculture, Box 255, Loureneo Marquez, P. E. Africa. (58). **E F G H K**
- *Barrett, S. A., Ph. D., Curator, Public Museum, Milwaukee, Wis. (58). 1910. **H**
- Barrett, Storrs Barrows, Secretary, Yerkes Observatory, Williams Bay, Wis. (58). **A**
- Barrett, W. E., Glen Olden, Pa. (60). **A**
- Barrie, Dr. George, 2131 Massachusetts Ave., Washington, D. C. (49). **H I**
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- Barrington, Richard L., M. D., 3820 Utah Place, St. Louis, Mo. (60). **K**
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- Barron, George D., Box 198, Rye, N. Y. (57).
- Barron, William E., M. D., Addison, N. Y. (60). **K**
- Barrow, Bernard, M. D., Barrow's Store, Va. (60). **K**
- *Barrows, Walter Bradford, Professor of Zoology and Geology, Michigan Agricultural College, East Lansing, Mich. (40). 1897. **E F**
- Barrows, Prof. William Morton, New Hampshire College, Durham, N. H. (57). **F**
- Barss, Howard Phillips, 13 Howland St., Cambridge, Mass. (61). **G**
- Barth, Carl G., M. E., 1937 North 33d St., Philadelphia, Pa. (60). **D**
- Bartholomew, C. Edgar, Instructor in Entomology, Iowa State College, Ames, Iowa. (54). **F**

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- *Bartlett, Edwin J., M. D., Professor of Chemistry, Dartmouth College, Hanover, N. H. (28). 1883. **C**
- *Bartlett, Francis, 40 State St., Boston, Mass. (50). 1906. **I**
- Bartlett, Frank Sargent, C. E., 131 Park Place, Schenectady, N.Y. (61). **D**
- Bartlett, George Miller, Instructor in Drawing and Descriptive Geometry, University of Michigan, Ann Arbor, Mich. (52). **DI**
- Bartlett, Harley Harris, Bureau of Plant Industry, U. S. Dept. of Agriculture, Washington, D. C. (61). **G**
- Bartlett, Dr. J. M., Me. Agric. Exp. Station, Orono, Me. (61). **C**
- Bartlett, John P., 41 Park Row, New York, N. Y. (57).
- *Bartley, Elias H., M. D., 21 Lafayette Ave., Brooklyn, N. Y. (33). 1894. **CK**
- Bartley, William M., M. D., Sheyenne, N. Dak. (60). **K**
- Bartol, John W., 1 Chestnut St., Boston, Mass. (60).
- *Barton, George Estes, 419 North High St., Millville, N. J. (46). 1898. **C**
- *Barton, George Hunt, Boston Society of Natural History, 234 Berkeley St., Boston, Mass. (47). 1900. **E**
- Barton, Philip Price, E. E., General Manager, Niagara Falls Power Co., Niagara Falls, N. Y. (50). **BDEH**
- *Barton, Samuel Goodwin, Ph. D., Professor of Mathematics, Thomas S. Clarkson Memorial School of Technology, Potsdam, N. Y. (58). 1910. **A**
- *Barton, Samuel Marx, Ph. D., University of the South, Sewanee, Tenn. (43). 1899. **AD**
- Bartow, Chas. S., 33 West 73d St., New York, N. Y. (57). **I**
- *Bartow, Edward, Ph. D., Professor of Sanitary Chemistry, University of Illinois, Urbana, Ill. (47). 1906. **C**
- *Bartsch, Paul, Ph.D., Smithsonian Institution, Washington, D. C. (52). 1906. **F**
- Baruch, Edgar, 945 South Olive St., Los Angeles, Cal. (56). **CD**
- *Barus, Carl, Ph.D., Wilson Hall, Brown University, Providence, R. i (33). 1887. **B**
- Barwell, John William, Waukegan, Ill. (47). **IL**
- *BASCOM, FLORENCE, Ph. D., Professor of Geology, Bryn Mawr College, Bryn Mawr, Pa. (42). 1897. **E**
- Base, Daniel, 329 North Schroeder St., Baltimore, Md. (60). **C**
- Bashore, Harvey Brown, M. D., West Fairview, Pa. (46). **EK**
- *Baskerville, Charles, Ph. D., Professor of Chemistry, College of the City of New York, New York, N. Y. (41). 1894. **CE**
- *Basquin, Olin H., Associate Professor of Physics, Northwestern University, Evanston, Ill. (53). 1906. **BD**
- Bass, Col. Edgar Wales, U. S. A., 77 Park Ave., New York, N. Y. (58). **ADEIL**
- Basset, Gardner C., 87 Woodland St., Worcester, Mass. (60). **F**
- Bassett, Carroll Phillips, Ph.D., Civil and Consulting Engineer, Summit, N. J. (51). **BDI**

- *Bassett, William H., Chief Chemist, American Brass Co., 146 Litchfield St., Torrington, Conn. (57). 1909. **C**
- Bassler, Harvey, Professor of Geology and Biology, Albright College, Myerstown, Pa. (61). **E F**
- Bassler, R. S., U. S. National Museum, Washington, D. C. (60). **E**
- Bassoe, Peter, M. D., 2207 Colfax St., Evanston, Ill. (58). **H K**
- *Batchelder, Charles Foster, 7 Kirkland St., Cambridge, Mass. (54) 1907.
- Bateman, George Frederick, E. E., Cooper Union, New York, N. Y. (60). **D**
- Bates, C. O., Cedar Rapids, Iowa. (58). **C**
- Bates, Henry H., Ph. D., The Revere, 1201 M St. N. W., Washington, D. C. (52). **A B D**
- *Bates, Rev. John Mallery, Red Cloud, Nebr. (51). 1903. **F G H L**
- Bates, Miss Octavia Williams, The Mount Royal, Baltimore, Md. (58). **I**
- Bates, Onward, C. E., 355 Dearborn St., Chicago, Ill. (58). **D E I**
- Bates, P. H., U. S. Geological Survey, 40th and Butler Sts., Pittsburg, Pa. (60). **C E**
- *Battle, Herbert B., Ph. D., President, "The Battle Laboratory", 103 South Court St., Montgomery, Ala. (58). 1910. **C**
- Bauer, George W., 660 Sacramento St., San Francisco, Cal. (60). **C**
- *Bauer, Louis A., Ph. D., Director, Department of Terrestrial Magnetism, Carnegie Institution, Washington, D. C. (40). 1892. **A B E L**
- *Bauer, William Charles, Professor of Electrical Engineering, Northwestern University, Evanston, Ill. (58). 1910. **A B C D**
- Baugh, Margaret L., 15 West 67th St., New York, N. Y. (57).
- Baumgartner, William Jacob, Assistant Professor of Zoology, University of Kansas, Lawrence, Kans. (58). **F**
- *Bausch, Edw., P. O. Drawer 1033, Rochester, N. Y. (26). 1883. **A B C F**
- *Baxter, Gregory Paul, Ph. D., Assistant Professor of Chemistry, Harvard University, Cambridge, Mass. (54). 1906. **C**
- *Bayley, Wm. Shirley, Ph. D., Associate Professor of Geology, University of Illinois, Urbana, Ill. (53). 1905. **E**
- Bayliss, Alfred, Macomb, Ill. (58).
- Beach, Charles Coffing, M. D., 54 Woodland St., Hartford, Conn. (50). **F K**
- *Beach, Spencer Ambrose, Iowa State College, Ames, Iowa. (41). 1900. **G**
- Beadle, William H. H., Madison, S. D. (60).
- Beal, George Safford, C. E., 1810 13th St., Altoona, Pa. (60). **D**
- *Beal, James Hartley, Ph. D., Professor of Pharmacy, Scio College of Pharmacy, Scio, Ohio. (54). 1909. **C L**
- Beal, Walter Henry, Assistant, Office of Experiment Stations, U. S. Department of Agriculture, Washington, D. C. (52). **C**
- *Beal, Wm. James, Ph. D., East Lansing, Mich. (17). 1880. **G**
- Beal, Wm. Otis, 1048 Grove St., Jacksonville, Ill. (60). **A**
- Beal, Wm. R., 1 West 121st St., New York, N. Y. (57).

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- Bean, Robert Bennett, M. D., Associate Professor of Anatomy, Medical School, Tulane University, New Orleans, La. (58). **F H K**
- Beard, Grace Alden, 88 Madison Ave., New York, N. Y. (60). **F**
- Beard, James T., E. M., 815 Sunset Ave., North Park, Scranton, Pa. (58). **D**
- *Beardsley, Arthur Eugene, Professor of Biology, Colorado State Normal School, Greeley, Colo. (50). 1901. **F**
- Beardsley, Benjamin F., M. D., 90 Edwards St., Hartford, Conn. (60). **K**
- *Beates, Henry, Jr., M. D., President, State Board of Medical Examiners, 260 North 16th St., Philadelphia, Pa. (51). 1909. **K**
- Beattie, Prof. Frederick S., 112 North High St., Bethlehem, Pa. (57). **C**
- Beattie, J. C., F. R. S. E., South African College, Cape Town, South Africa. (54). **F**
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- Beatty, James W. F., Pitcairn, Pa. (51). **D**
- Beaulieu, Germain, Room 203, New York Life Building, Montreal, Canada. (58). **F**
- Beazley, Arthur T., E. E., Oilfields, Cal. (60). **D**
- Bebb, Edward C., U. S. Reclamation Service, Glendive, Montana. (52). **E**
- Bebb, William, Dental Department, University of Southern California, Los Angeles, Cal. (60). **K**
- *Beck, Carl, M. D., Professor of Surgery, New York Postgraduate Medical School, President, St. Mark's Hospital, New York, N. Y. (51). 1906. **K**
- Beck, Emil G., M. D., 2632 Lake View Ave., Chicago, Ill. (58). **K**
- Beck, Matthias A., M. E., 294 Greenbush St., Milwaukee, Wis. (60). **D**
- *Becker, Dr. Geo. F., U. S. Geological Survey, Washington, D. C. (36). 1890. **E**
- Becker, Irwin A., care Michael Reese Hospital, 29th and Groveland Ave., Chicago, Ill. (58). **C E G K**
- Beckett, Bergie Barry, E. E., Room 718, Crocker Bldg., San Francisco, Cal. (60). **D**
- Beckett, Henry C., M. D., Scottsburg, Va. (60). **K**
- Becknell, Guy G., 34 Gates St., Worcester, Mass. (58). **B**
- Beckwith, Theodore D., Assistant Bacteriologist, North Dakota Agricultural College, N. Dak. (57). **F G K**
- *Bedell, Frederick, Ph. D., Professor of Applied Electricity, Cornell University, Ithaca, N. Y. (41). 1894. **A B**
- *Bedford, M. Hume, Ph. D., Paris, Ky. (58). 1910. **C**
- *Beebe, Charles William, Curator of Ornithology, New York Zoological Park, New York, N. Y. (53). 1905. **F**
- *Beebe, Silas Palmer, Physiological Chemist to the Huntington Fund for Cancer Research, 216 Central Ave., Flushing, N. Y. (54). 1906. **K**
- *Beede, Joshua William, Ph. D., Instructor in Geology, Indiana University, Bloomington, Ind. (50). 1906. **E**

MEMBERS AND FELLOWS.

- Beekman, Gerard, 7 East 42d St., New York, N. Y. (49).
- *Beer, Edwin, M. D., 116 West 58th St., New York, N. Y. (56). 1908. **K**
- Beer, James Anderson, M. D., Health Office, City Hall, Columbus, Ohio. (58). **CK**
- Beers, Everett Jacob, Principal, Oak Grove Seminary and Bailey Institute, Vassalboro, Me. (57). **BC**
- Beers, William Herbert, Chemist and Bacteriologist, 1524 Henderson St., Columbia, S. C. (58). **CFGHK**
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- Bégin, L'abbé P. A., Professor of Physics and Chemistry, Seminaire Saint Charles Borromée, Sherbrook, Quebec, Canada. (58). **BC**
- Behr, Edward, C. E., 838 Carroll St., Brooklyn, N. Y. (57). **HL**
- Behr, Gustavus E., Jr.,.....(58). **C**
- *Behrend, Bernard Arthur, C. E., E. E., P. O. Box 143, East Liberty, Pittsburg, Pa. (50). 1903. **ABDIL**
- Beidler, Francis, 115 Adams St., Chicago, Ill. (58).
- Belknap, Henry Wyckoff, 31 Warren St., Salem, Mass. (57).
- Belknap, Lewis Jerome, M. D., Garden City Sanitarium, San Jose, Cal. (60). **K**
- *Bell, Albert T., Nebraska Wesleyan University, University Place, Nebr. (52). 1903. **G**
- *Bell, Alexander Graham, Ph. D., 1331 Connecticut Ave. N. W., Washington, D. C. (26). 1879. **BHI**
- BELL, C. M., M. D., 320 Fifth Ave., New York, N. Y. (36). **K**
- Bell, J. Finley, M. D., Englewood, New Jersey. (57). **K**
- *Bell, James Carleton, Ph. D., 1032 Sterling Place, Brooklyn, N. Y. (58). 1910. **FHL**
- *Bell, James Munsie, Bureau of Soils, U. S. Department of Agriculture, Washington, D. C. (58). 1909. **BC**
- *Bell, John Everett, M. E., care the Babcock & Willcox Co., 85 Liberty St., New York, N. Y. (53). 1906. **D**
- *Bell, Robert, M. D., LL. D., 136 Maclaren St., Ottawa, Canada. (38). 1889. **EFK**
- Bell, Robert N., E. M., State Inspector of Mines, Boise, Idaho. (60). **D**
- Bell William B., Assistant Professor of Zoology and Physiology, Agricultural College, N. Dak. (56). **FK**
- Beller, William Frank, Chief Liquidating Clerk, New York Custom House, 51 East 123d St., New York, N. Y. (56). **FHI**
- Belling, John, Florida Agricultural Experiment Station, Gainesville, Fla. (58). **G**
- Bellows, Horace M., M. D., Huntingdon Valley, Pa. (51). **K**
- *Belmont, August, 23 Nassau St., New York, N. Y. (50). 1906. **I**
- BELMONT, HON. PERRY, 580 Fifth Ave., New York, N. Y. (57).
- *Beman, Wooster Woodruff, Professor of Mathematics, University of Michigan, Ann Arbor, Mich. (34). 1886. **A**
- Bement, Alburto, E. M., 2114 Fisher Building, Chicago, Ill. (52). **BCDE**
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MEMBERS AND FELLOWS.

- Bédrat, Rev. Thomas Albert, Turner's Fall, Mass. (52). **EFG**
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- Benedict, Rev. C. K., Christ Church Rectory, Glendale, Ohio. (60).
- *Benedict, Francis Gano, Ph. D., Director, Nutrition Laboratory, Carnegie Institution, Boston, Mass. (55). 1908. **CK**
- Benedict, Harris Miller, Assistant Professor of Biology, University of Cincinnati, Cincinnati, Ohio. (52). **FG**
- Benedict, Harry Yendell, Professor of Applied Mathematics, University of Texas, Austin, Tex. (58). **AD**
- Benedict, Ralph Curtis, 2427 Lorillard Place, Fordham, N. Y. (60). **G**
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- Bengston, Rev. Carl J., Missoula, Montana. (58). **H**
- *BENJAMIN, MARCUS, Ph. D., LL. D., U. S. National Museum, Washington, D. C. (27). 1887. **CI**
- Benner, Winthrop W., Box 540, Port Arthur Ontario, Can. (60). **C**
- Bennehoff, James D., Prof. of Geology and Biology, Alfred University, Alfred, N. Y. (61). **E**
- *Benneson, Miss Cora Agnes, 4 Mason St., Cambridge, Mass. (47). 1899. **HI**
- *Bennett, Alfred A., Professor of Chemistry, Iowa State College, Ames Iowa. (54). 1906. **C**
- Bennett, Charles Wilkes, Coldwater, Mich. (50). **EFG**
- Bennett, Mrs. George, 1377 Acoma St., Denver, Colo. (58). **FG**
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- Bennett, John N., Professor of Mathematics, Doane College, Crete, Nebr. (57). **A**
- Bennett, Lee F., Professor of Zoology and Geology, Valparaiso University, Valparaiso, Ind. (58). **EF**
- *Bennett, William Z., Ph. D., Director, Chemical Laboratory, University of Wooster, Wooster, Ohio. (48). 1903. **C**
- Bennion, Milton, Professor of Philosophy, University of Utah, Salt Lake City, Utah. (60). **L**
- *Bensley, Benjamin Arthur, Ph. D., Associate Professor of Zoology, University of Toronto, Toronto, Canada. (58). 1910. **FK**
- Bensley, Robert Russell, Professor of Anatomy, University of Chicago, Chicago, Ill. (60). **K**
- Bentley, Gordon M., Instructor in Zoology and Entomology, University of Tennessee, Knoxville, Tenn. (54). **F**
- *Bentley, Madison, Ph. D., Assistant Professor of Psychology, Cornell University, Ithaca, N. Y. (54). 1906. **HK**
- *Bentley, William B., Professor of Chemistry, Ohio University, Athens, Ohio. (51). 1903. **C**
- Bentley, Wilson A., Jericho, Vt. (48). **B**
- Benton, Frank, P. O. Box 17, Washington, D. C. (51). **F**

- *Benton, John Robert, Ph. D., Professor of Physics and Electrical Engineering, University of Florida, Gainesville, Fla. (51). 1906. **B D**
- Benz, George G., 668 Cable St., St. Paul, Minn. (60).
- Benzenberg, George Henry, C. E., 1310 Wells Bldg., Milwaukee, Wis. (58). **D**
- Berard, Eugene M., 43 Cedar St., New York, N. Y. (58). **A E I**
- Berg, William Nathan, Ph. D., Bureau of Animal Industry, U. S. Department of Agriculture, Washington, D. C. (55). **C K**
- *Bergen, Joseph Young, 47 Raymond St., North Cambridge, Mass. (57). 1909. **G**
- Bergen, Van Brunt, C. E., Shore Road and 77th St., Brooklyn, N. Y. (54). **I**
- Berger, E. W., Ph. D., Entomologist, Florida Agricultural Experiment Station, Gainesville, Fla. (57). **F**
- *Bergey, David Hendricks, M. D., Assistant Professor of Bacteriology, Laboratory of Hygiene, University of Pennsylvania, Philadelphia, Pa. (48). 1903. **K**
- Berghausen, Dr. E. J., 3427 Evans Place, Clifton, Cincinnati, Ohio. (58). **C**
- Bergin, Rev. Alfred, Ph. D., Lindsborg, Kans. (60). **H**
- Bergland, Major Eric, P. O. Box 30, Baltimore, Md. (60).
- Bergman, Herbert Floyd, Assistant Professor of Botany, Agricultural College, Fargo, N. D. (60). **G**
- *Berkey, Charles Peter, Ph. D., Tutor in Geology, Columbia University, New York, N. Y. (50). 1905. **E**
- Berlenbach, Philip H., M. D., 9 Stuyvesant Ave., Brooklyn, N. Y. (60). **K**
- Berlin, Henry, M. D., 110 McCallie Ave., Chattanooga, Tenn. (58). **K**
- Berna, George, M. E., Hygeia Ice Co., Ithaca, N. Y. (60). **D**
- Bernheimer, Charles L., 120 Franklin St., New York, N. Y. (49).
- Berolzheimer, Daniel D., care Arlington Chemical Co., Yonkers, N. Y. (55). **C H**
- Berry, Daniel, M. D., Carmi, Ill. (41). **B C E**
- Berry, Edgar H., 248 North 20th St., East Orange, N. J. (50). **A B C D**
- *Berry, Edward W., Johns Hopkins University, Baltimore, Md. (50). 1905. **E G**
- Berry, John Wilson, C. E., Pittston, Pa. (47).
- *Bessey, Charles Edwin, Ph. D., LL.D., Dean, University of Nebraska, Lincoln, Nebr. (21). 1880. **G**
- *Bessey, Ernst Athearn, Ph. D., Professor of Botany, Michigan Agric. College, East Lansing, Mich. (49). 1901. **G**
- Bessey, J. Mortimer, M. D., 1814 Adams St., Toledo, Ohio. (51). **K**
- Best, George Newton, M. D., Rosemont, N. J. (54). **G K**
- Bestor, George W., 954 Security Bank Building, Minneapolis, Minn. (60).
- *Bethune, Rev. C. J. S., Professor of Entomology, Ontario Agricultural College, Guelph, Ontario, Canada. (18). 1875. **F**

MEMBERS AND FELLOWS.

- Betten, Cornelius, Ph. D., Professor of Biology, Lake Forest College, Lake Forest, Ill. (56). **F**
- Betts, Anson G., E. M., Troy, N. Y. (60). **CD**
- Betts, Samuel R., Kuhn-Loeb Building, 52 William St., New York, N. Y. (57). **DL**
- Betts, William Royston, M.D., 1331 Eighth St., New Orleans, La. (55). **K**
- Beubler, Geo. O. H., 2813 Hobart Boulevard, Los Angeles, Cal. (58). **C**
- Beutenmüller, Wm., Curator, Department of Entomology, American Museum of Natural History, New York, N. Y. (57). **FGIL**
- *Bevan, Arthur Dean, M. D., Professor of Surgery, Rush Medical College, University of Chicago, Chicago, Ill. (58). 1909. **K**
- Bevier, George, Jr., 702 Alice Ave., Spokane, Wash. (55). **D**
- *Bevier, Miss Isabel, Professor of Household Science, University of Illinois, Urbana, Ill. (46). 1909. **C**
- *Beyer, George Eugene, Professor of Biology, Tulane University, New Orleans, La. (54). 1906. **FG**
- Beyer, J. Walter, M. D., 401 Eastern Ave., Aspinwall, Pa. (60). **K**
- *Beyer, Samuel Walker, Ph. D., Professor of Geology and Mining Engineering, Iowa State College, Ames, Iowa. (47). 1900. **DE**
- *Bibbins, Arthur Barneveld, Curator and Instructor in Geology and Mineralogy, The Woman's College, Baltimore, Md. (54). 1906. **E**
- Bickford, Elizabeth E., Ph. D., 45 Hemenway St., Boston, Mass. (60). **F**
- *Bickmore, Albert S., Ph. D., American Museum of Natural History, New York, N. Y. (17). 1880. **H**
- *Biddle, Henry Chalmers, Ph. D., Assistant Professor of Chemistry, University of California, Berkeley, Cal. (60). 1910. **C**
- Biddle, James G., 1114 Chestnut St., Philadelphia, Pa. (33). **B**
- Bidwell, Geo. L., 1225 S St. N. W., Washington, D. C. (60). **C**
- *Bien, Julius, 140 Sixth Ave., New York, N. Y. (34). 1905. **EH**
- Bierbaum, Christopher Henry, M. E., Consulting Engineer, 1142 Prudential Building, Buffalo, N. Y. (53). **D**
- Bierwirth, Julius C., M. D., 137 Montague St., Brooklyn, N. Y. (51). **K**
- *Bigelow, Prof. Frank H., Oficina Meteorologica, Buenos Aires, Argentine Republic, S. A. (36). 1888. **AB**
- *Bigelow, Harriet W., Ph. D., Smith College Observatory, Northampton, Mass. (57). 1909. **A**
- *Bigelow, Henry Bryant, Ph. D., Museum of Comparative Zoology, Cambridge, Mass. (52). 1909. **F**
- *Bigelow, Maurice Alpheus, Ph. D., Professor of Biology, Teachers College, Columbia University, New York, N. Y. (51). 1903. **FL**
- *Bigelow, Robert Payne, Ph. D., Massachusetts Institute of Technology, Boston, Mass. (51). 1903. **F**
- *Bigelow, Samuel Lawrence, Ph. D., Assistant Professor of General Chemistry, University of Michigan, Ann Arbor, Mich. (51). 1903. **C**
- *Bigelow, Willard Dell, Bureau of Chemistry, U. S. Department of Agriculture, Washington, D. C. (53). 1906. **C**
- Bigelow, Wm. Sturgis, M. D., 56 Beacon St., Boston, Mass. (57). **K**

- Bigg, Elmer LeRoy, M. D., Hot Springs, Ark. (60). **K**
- Bigney, Andrew J., Professor of Biology and Geology, Moores Hill College, Moores Hill, Ind. (50). **E F**
- Bijur, Moses, Manhattan Square Hotel, 50 West 77th St., New York, N. Y. (57). **C D E**
- Bikle, Charles Earle, 101 Clarendon St., Syracuse, N. Y. (60). **A**
- *Billings, Frank, M. D., 335 East 22d St., Chicago, Ill. (58). 1909. **H K L**
- Billingsley, Paul, 446 Macon St., Brooklyn, N. Y. (61). **F**
- Bilstein, Emma L., M. D., Highlands, N. C. (60). **K**
- Bingham, Hiram, Ph. D., Box 201, Yale Station, New Haven, Conn. (58). **I**
- Bingham, Walter VanDyke, Ph. D., Asst. Professor of Psychology, Dartmouth College, Hanover, N. H. (60). **H**
- Binney, Harold, 2 Rector St., New York, N. Y. (57).
- BIRD, CHARLES S., JR., East Walpole, Mass. (60).
- Bird, Henry, Rye, N. Y. (55). **F**
- *Bird, Robt. Montgomery, Ph. D., Professor of Chemistry, University of Virginia, Charlottesville, Va. (57) 1909. **C**
- Birdsall, Mrs. W. R., 316 So. Tejon St., Colorado Springs, Colo. (57).
- *Birge, Edward Asahel, Ph. D., Dean, College of Letters and Science, University of Wisconsin, Madison, Wis. (53). 1905. **F**
- Birkhoff, George D., 15 Alexander St., Princeton, N. J. (61).
- Birnie, Clotworthy, M. D., Taneytown, Md. (60). **K**
- *Bishop, Howard Beckey, 1054 Park^e Place, Brooklyn, N. Y. (56). 1908. **C**
- Bishop, James Hall, 2520 Gough St., San Francisco, Cal. (51). **H**
- Bishop, Mrs. Josephine Hall, 2309 Washington St., San Francisco, Cal. (51). **H**
- *Bishop, Louis B., M. D., 356 Orange St., New Haven, Conn. (50). 1906. **I K**
- Bishop, Louis Faugeres, M. D., 54 West 55th St., New York, N. Y. (60). **K**
- Bishop, Rev. Samuel H., 500 West 122d St., New York, N. Y. (57). **H I**
- Bishopp, Fred C., Box 208, Dallas, Texas. (54). **F**
- *Bissell, George Welton, Dean of Engineering, Michigan Agricultural College, East Lansing, Mich. (53). 1905. **D**
- *Bissing, William F., 2 Rector St., New York, N. Y. (55). 1909. **B D H I**
- Bitner, Henry F., Ph. D., Teacher of Natural Science, First Pennsylvania State Normal School, Millersville, Pa. (52). **B C G**
- *Bitting, Katherine Golden, Lafayette, Ind. (42). 1897. **G**
- *BIXBY, COL. W. H., Corps of Engineers, U. S. A., 508 Colorado Building, Washington, D. C. (34). 1892. **D**
- Black, Alexander, Fort Defiance, Ariz. (60). **H**
- Black, Carl E., M. D., Jacksonville, Ill. (60). **K**
- Black, H. Crawford, Fidelity Building, Baltimore, Md. (60).
- Black, Newton Henry, 15 Ellery St., Cambridge, Mass. (50). **B C**
- Black, Otis Fisher, 1613 Riggs Place, Washington, D. C. (60). **C**

MEMBERS AND FELLOWS.

- Black, Robert A., M. D., Virginia Hot Springs, Va. (60). **K**
 Black, Lieut. Roger D., Corps of Engineers, U. S. A., San Francisco, Cal. (60). **D**
- *Blackburn, Isaac Wright, M. D., Pathologist, Government Hospital for the Insane, Washington, D. C. (55). 1909. **K**
 Blackiston, A. H., 48 Washington St., Cumberland, Md. (60).
 BLACKMORE, HENRY SPENCER, 206 South 9th Ave., Mount Vernon, N. Y. (49). **C**
- *Blackshear, Edward Levoisier, Principal, Prairie View State Normal and Industrial College, Prairie View, Tex. (52). 1907. **H I L**
- *Blackwelder, Eliot, Assistant Professor of Geology, University of Wisconsin, Madison, Wis. (55). 1908. **E F**
 Blackwood, Alexander L., M. D., 31 Washington St., Chicago, Ill. (58). **K**
- *Blain, Alexander W., Jr., M. D., 1105 Jefferson Ave. East, Detroit, Mich. (52). 1906. **F K**
 Blaine, Anita McCormick, 344 East Erie St., Chicago, Ill. (58).
 Blair, A. W., Gainesville, Fla. (58). **C**
- *Blair, Andrew Alexander, 406 Locust St., Philadelphia, Pa. (44). 1896. **C**
 Blaisdell, Frank Ellsworth, Sr., M. D., 1632 Post St., San Francisco, Cal. (60). **F K**
 Blaise, T. T., Mason City, Iowa. (58).
- *Blake, Clarence John, M. D., 226 Marlborough St., Boston, Mass. (24) 1877. **B F K**
- *Blake, Francis, Auburndale, Mass. (23). 1874. **A B D**
- *Blake, Frederic C., Ph. D., Assistant Professor of Physics, Ohio State University, Columbus, Ohio. (60). 1909. **B**
 Blake, Joseph A., M. D., 601 Madison Ave., New York, N. Y. (60). **K**
 Blakeman, Mrs. Birdseye, 9 East 44th St., New York, N. Y. (49).
- *Blaker, Ernest, Ph. D., Assistant Professor of Physics, Cornell University, Ithaca, N. Y. (51). 1907. **B**
- *Blakeslee, Albert Francis, Ph. D., Professor of Botany, Connecticut Agricultural College, Storrs, Conn. (52). 1909. **G**
 Blakiston, Kenneth M., 1012 Walnut St., Philadelphia, Pa. (54).
- *Blanchard, Arthur A., Ph. D., Asst. Professor of Inorganic Chemistry, Massachusetts Institute of Technology, Boston, Mass. (58). 1910. **C**
- *Blanchard, Arthur Horace, C. E., Associate Professor of Civil Engineering, Brown University, Providence, R. I. (52). 1905. **B D E**
 Blanchard, William M., Greencastle, Ind. (58). **C**
 Bland, Curtis, M. D., Greensburg, Ind. (60). **K**
 Bland, John Carlisle, C. E., Room 1115, Union Station, Pittsburg, Pa. (51). **D**
- *Blankinship, Joseph William, Ph. D., 4008a Flad Ave., St. Louis, Mo. (51). 1909. **G**
- *Blasdale, Walter Charles, Ph. D., Assistant Professor of Chemistry, University of California, Berkeley, Cal. (50). 1908. **C**

- *Bleile, Albert M., M. D., Ohio State University, Columbus, Ohio. (37).
1896. **F**
- Bleiningger, Albert Victor, U. S. Geological Survey, U. S. Arsenal, Pittsburg, Pa. (58). **C D**
- Bliem, Daniel William, C. F., Manager, American Bridge Co., Pencoyd, Pa. (60). **D**
- Bliem, Milton J., M. D., 235 West Mistletoe Ave., San Antonio, Tex. (60). **K**
- BLISH, W. G., Niles, Michigan. (33). **B D**
- *Bliss, Rev. Charles B., Ph. D., Hampden, Mass. (49). 1906. **H I**
- Bliss, Hon. Cornelius N., 117 Duane St., New York, N. Y. (49). **E**
- Bliss, Edwin Packard, C. E., 120 Milk St., Boston, Mass. (60). **D**
- *BLISS, GILBERT AMES, Ph. D., Associate Professor of Mathematics, University of Chicago, Chicago, Ill. (55). 1907. **A**
- BLISS, MRS. WM. H., 6 East 65th St., New York, N. Y. (57).
- *Blodgett, Frederick Harvey, Roanoke College, Salem, Va. (52). 1905.
G L
- Blood, George Deroy, E. M., 3 Emery Flat, Salt Lake City, Utah. (60). **D**
- *Bloodgood, Joseph Colt, M. D., Associate Professor of Surgery, Johns Hopkins University, Baltimore, Md. (55). 1909. **K**
- BLOUNT, HENRY FITCH, "The Oaks," Washington, D. C. (32). **B I**
- Blum, William, Bureau of Standards, Washington, D. C. (55). **C**
- Blumenthal, Sidney, 329 West 87th St., New York, N. Y. (57).
- Blumer, George, M. D., Dean, Yale Medical School, New Haven, Conn. (60). **K**
- *Blunt, Katharine, Ph. D., Vassar College, Poughkeepsie, N. Y. (58).
1910. **C**
- Blunt, Stanhope English, Colonel, Ordnance Department, U. S. A., Commanding Springfield Armory, Springfield, Mass. (55). **D**
- Boardman, Edwin O., M. D., Overton, Nebr. (60). **K**
- Boas, Emil L., 45 Broadway, New York, N. Y. (50). **E G I**
- *Boas, Franz, Ph. D., Franklin Ave., Grantwood, N. J. (36). 1888. **H I**
- *Bodine, Donaldson, Professor of Geology and Zoology, Wabash College, Crawfordsville, Ind. (45). 1899. **E F**
- Boeck, Percy A., care of Norton Co., Worcester, Mass. (58). **B C D**
- Boericke, Felix A., M. D., 1011 Arch St., Philadelphia, Pa. (58). **K**
- Boerner, Wunibald R., Ravinia, Ill. (54). **B D**
- *Bogert, Marston Taylor, Professor of Organic Chemistry, Columbia University, New York, N. Y. (47). 1900. **C**
- *Boggs, Gilbert H., Ph. D., Georgia School of Technology, Atlanta, Ga. (58). 1910. **C**
- Boggs, Lucinda Pearl, 811 West Illinois St., Urbana, Ill. (57).
- Bogue, Edward Augustus, M. D., 63 West 48th St., New York, N. Y. (57). **K**
- Bohler, Richard F., E. M., Bohler Steel Co., Vienna, Austria. (60). **D**
- Bohleng, Lee Hayes, Chentu High School, Chentu, Szechuen, China. (58).
B C D

MEMBERS AND FELLOWS.

- Bolles, J. H., E. M., 403 Singer Building, New York, N. Y. (58). **D**
 Bolles, Newton Alden, M. D., 6 Ferguson Building, 711 17th St., Denver, Colo. (50). **C D I**
- *Bolley, Henry Luke, Professor of Botany and Zoology, Agricultural College, North Dak. (39). 1892. **F G**
 Bolling, Geo. E., 17 Gifford St., Brockton, Mass. (58). **C K**
- *Bolser, C. E., Hanover, N. H. (58). 1910. **C**
 Bolster, Augustus S., M. D., 323 Pleasant St., Worcester, Mass. (50). **K**
- *Bolton, Thaddeus L., Ph. D., Tempe, Arizona. (50). 1901. **H I**
 Bond, Frank M., Madison, Wis. (60). **G**
- *Bond, Geo. Meade, 141 Washington St., Hartford, Conn. (33). 1885. **D**
 Bond, Josiah, Toluachi Mine, Patagonia, Ariz. (58). **C D**
 Bond, R. I., M. D., Hartshorne, Okla. (50). **K**
- *Bondurant, Eugene Du Bose, M. D., Professor of Pathology and Bacteriology, University of Alabama, Mobile, Ala. (54). 1909. **K**
- *Bonnet, Frederic, Jr., Ph. D., 173 Russell St., Worcester, Mass. (53). 1906. **C**
 Bonnett, Charles P., C. E., 855 West End Ave., New York, N. Y. (60). **D**
 Book, William Frederick, University of Montana, Missoula, Mont. (60).
- *Bookman, Samuel, Ph. D., 9 East 62d St., New York, N. Y. (47). 1900. **C K**
 Boon, John Daniel, Professor of Physics, Chemistry and Geology, Polytechnic College, Fort Worth, Tex. (50). **B C E**
 Booraem, John Van Vorst, 204 Lincoln Place, Brooklyn, N. Y. (36). **B C**
- *Booth, Edward, Instructor in Chemistry, University of California, Berkeley, Cal. (50). 1909. **C**
- *Booth, Miss Mary A., 60 Dartmouth St., Springfield, Mass. (34). 1894. **F G I**
 Booth, William T., Englewood, N. J. (58).
 Boothby, Alfred Russell, Barksdale, Wis. (58). **C**
 Boring, Alice M., Instructor in Zoology, University of Maine, Orono, Me. (61). **F**
 Born, Rudolph C., 23 Woodlawn Place, Longmeadow, Mass. (60). **C**
 Boskowitz, Geo. W., M. D., 140 West 71st St., New York, N. Y. (57). **K**
 Boswell, Maitland C., Chemical and Mining Building, University of Toronto, Toronto, Canada. (60). **C**
- Bothne, Gisle, Professor, and Head of Department, of Scandinavian Languages and Literature, University of Minneapolis, Minneapolis, Minn. (61).
- Boucek, Anthony J., M. D., 624 Chestnut St., Allegheny, Pa. (51). **K**
 Boulton, Eleanore F., M. D., P. O. Box 585, Chicago, Ill. (60). **K**
- *Bouton, Charles Leonard, Assistant Professor of Mathematics, Harvard University, 5 Avon St., Cambridge, Mass. (50). 1901. **A**
- *Boutwell, John Mason, U. S. Geological Survey, Washington, D. C. (46). 1905. **E**
- *Bovaird, David, Jr., M. D., 126 West 58th St., New York, N. Y. (57). 1908. **K**

- Bovard, John F., Instructor in Biology, University of Oregon, Eugene, Oregon. (58). **F**
- Bovée, J. Wesley, M. D., The Rochambeau, Washington, D. C. (60). **K**
- *Bowditch, Charles P., 28 State St., Boston, Mass. (43). 1897. **H**
- Bowditch, Harold, Pond St., Jamaica Plain, Mass. (60).
- *Bowditch, Henry Pickering, M. D., Ph. D., Pond St., Jamaica Plain, Mass. (28). 1880. **B F H K**
- Bower, William Clinton, M. D., 423 Colorado Ave., Colorado Springs, Colo. (55). **K**
- Bowie, Alexander, E. M., Bowie, Colo. (58). **D**
- *Bowie, William, U. S. Coast and Geodetic Survey, Washington, D. C. (57). 1907. **A D E**
- Bowker, Charles H., M. D., 1310 Vermont Ave., Washington, D. C. (60). **K**
- Bowker, Richard Rogers, 298 Broadway, New York, N. Y. (43). **B D I L**
- Bowker, Willard Lewis, C. E., Walpole, Mass. (60). **D**
- Bowker, William H., 43 Chatham St., Boston, Mass. (60).
- Bowles, Oliver, 719 Erie St., Minneapolis, Minn. (61). **E**
- Bowlker, T. J., 282 Beacon St., Boston, Mass. (60).
- Bowman, Charles Henry, Professor of Mechanics and Electrical Engineering, State School of Mines, Butte, Mont. (51). **D**
- *Bownocker, John A., Professor of Inorganic Geology, Ohio State University, Columbus, Ohio. (48). 1905. **E**
- Boyce, David C., M. D., 846 Western Ave., Northside, Pittsburg, Pa. (60). **K**
- Boyce, Ernest Walter, E. E., 239 95th St., Brooklyn, N. Y. (60). **D**
- *Boyce, James, Chief Chemist, American Cotton Oil Co., 225 East 19th St., Chicago, Ill. (58). 1910. **C**
- Boyd, E. T., M. D., Leadville, Colo. (60). **K**
- *Boyd, James E., Ohio State University, Columbus, Ohio. (46). 1899. **B D**
- Boyer, Charles S., 3223 Clifton St., Philadelphia, Pa. (60). **A**
- Boyle, David, Superintendent, Prov. Museum, Educational Department, Toronto, Canada. (60) **H L**
- Boylston, Arthur Clarence, Mallinckrodt Chemical Works, St. Louis, Mo. (58). **C D**
- Boynton, Dr. Charles E., 183 Rush St., Chicago, Ill. (60). **A K**
- *Boynton, William Pingry, Professor of Physics, University of Oregon, 135 East 11th St., Eugene, Ore. (60). 1910. **B**
- Brabec, Frank J., M. D., Perham, Minn. (60). **K**
- Brace, Edith M., Eastern District High School, Brooklyn, N. Y. (54). **F G**
- *Brace, Mrs. R. N., 223 East 17th St., New York, N. Y. (49). 1906. **H**
- Bracken, H. M., M. D., 1010 Fourth St., S. E., Minneapolis, Minn. (60). **K**
- BRACKENRIDGE, GEORGE W., San Antonio, Tex. (41).

MEMBERS AND FELLOWS.

- Brackett, Byron Briggs, Ph. D., So. Dak. State College, Brookings, S. D. (46). **B D**
- *Brackett, Cyrus Fogg, Professor of Physics, Princeton University, Princeton, N. J. (19). 1875. **B**
- *Brackett, Frank Parkhurst, Professor of Mathematics, Pomona College, Claremont, Cal. (50). 1906. **A**
- Brackett, Mary M., 604 West 115th St., New York, N. Y. (54). **G**
- *Brackett, Richard Newman, Clemson Agricultural College, Clemson College, S. C. (37). 1891. **C E**
- Bradbury, Wymond H., 459 C St. N. W., Washington, D. C. (60). **C**
- Bradford, Moses B. L., 60 Main St., Concord, Mass. (60).
- *Bradford, Royal B., Rear Admiral, U. S. Navy, 1522 P St. N. W., Washington, D. C. (31). 1891. **B C D**
- BRADLEY, ARTHUR C., Newport, N. H. (43).
- Bradley, Charles Edward, Experiment Station, Corvallis, Ore. (54). **C**
- Bradley, Charles S., 41 Park Row, New York, N. Y. (40). **B C D**
- Bradley, Harold C., 1811 Adams Ave., Madison, Wis. (60). **C F**
- *Bradley, James Chester, Ph. D., Cornell University, Ithaca, N. Y. (54). 1910. **F**
- BRADLEY, M. J., 373 Fulton St., Brooklyn, N. Y. (43).
- BRADLEY, MILTON, Springfield, Mass. (44). **B**
- BRADLEY, STEPHEN ROWE, Nyack, N. Y. (51).
- Bradley, Theodore J., Albany Academy, Albany, N. Y. (60).
- Bradley, Walter M., 520 Whitney Ave., New Haven, Conn. (60).
- *Bradley, Walter Parke, Ph. D., Professor of Chemistry, Wesleyan University, Middletown, Conn. (50). 1906. **B C**
- *Brady, William, Superintendent, Illinois Steel Works of Chicago, 7642 Marquette Ave., Chicago, Ill. (58). 1909. **C**
- Bragg, E. B., 1838 Chicago Ave., Evanston, Ill. (60). **C**
- Brainerd, Erastus, care *The Post Intelligencer*, Seattle, Wash. (52). **H**
- Braman, Winfred Waite, P. O. Box 353, State College, Pennsylvania. (58). **C**
- Bramwell, Geo. W., 335 Broadway, New York, N. Y. (43). **D**
- *Branner, John Casper, Ph. D., Professor of Geology, Stanford University, California. (34). 1886. **E F**
- *Brannon, Prof. Melvin Amos, 207 Chestnut St., Grand Forks, N. Dak. (55). 1909. **G**
- Branson, Edwin Boyer, Ph. D., Associate Professor of Geology, Oberlin College, Oberlin, Ohio. (57). **E**
- *Brasfield, Stanley Eugene, Instructor in Mathematics, Lafayette College, Easton, Pa. (50). 1906. **A**
- *BRASHEAR, JOHN A., Allegheny, Pa. (33). 1885. **A B D**
- Brassill, Miss Sarah Ellen, South Weymouth, Mass. (47). **F G**
- Braucher, Ralph Waldo, Bureau of Entomology, U. S. Department of Agriculture, Washington, D. C. (60). **F**
- Braun, Annette F., 2702 May St., Cincinnati, Ohio. (60). **F**

- Braunnagel, Jules L. A., M. D., P. O. Box 925, San Antonio, Tex. (50).
H K
- *Bray, William Crowell, Ph. D., Massachusetts Institute of Technology, Boston, Mass. (60). 1910. **C**
- *Bray, William L., Ph. D., Syracuse University, Syracuse, N. Y. (49). 1901. **G**
- Brayton, Sarah H., M. D., 1637 Chicago Ave., Evanston, Ill. (33). **K**
- Brecht, Samuel K., 205 East McKinley Ave., Lansdowne, Pa. (60). **A**
- Breckenridge, John E., American Agricultural Chemical Co., Carteret, N. J. (60). **C**
- Breckenridge, Ralph W., 3611 Jackson St., Omaha, Nebr. (60).
- Bredin, George S., R. F. D. No. 5, West Chester, Pa. (58).
- *Breed, Robert Stanley, Ph. D., Professor of Biology and Geology, Allegheny College, Meadville, Pa. (51). 1909. **E F**
- Breen, Howard, C. E., 275 South Euclid St., Pasadena, Cal. (60). **D**
- *Breese, Burtis Burr, Ph. D., Professor of Psychology, University of Cincinnati, Cincinnati, Ohio. (54). 1910. **H L**
- *Breidenbaugh, Prof. Edward S., Pennsylvania College, Gettysburg, Pa. (57). 1909. **C**
- Breitwieser, J. V., Columbia University, New York, N. Y. (61).
- *Breitzke, Charles Frederick, C. E., Asst. Engineer, New York Board of Water Supply, New Paltz, N. Y. (60). 1910. **D I**
- Bremer, John Lewis, M. D., Harvard Medical School, Boston, Mass. (58).
K
- Breneman, A. A., 97 Water St., New York, N. Y. (58). **C**
- *Brenke, William Charles, 400 South 26th St., Lincoln, Nebr. (56). 1908.
A
- Brennan, Rev. Martin S., D. D., 6304 Minnesota Ave., St. Louis, Mo. (58). **A**
- Brereton, Thomas John, C. E., Chambersburg, Pa. (58). **D**
- Brettnall, George Herbert, Head, Department of Biology, Monmouth College, Monmouth, Ill. (58). **F G**
- Brett, George Monroe, Hartley Hall, 115th St. and Amsterdam Ave., New York, N. Y. (54). **A D**
- Bretz, J. Harlan, Franklin High School, Seattle, Wash. (57). **E**
- *Brewer, Charles Edward, Professor of Chemistry, Wake Forest College, Wake Forest, N. C. (50). 1903. **C**
- Brewer, Edward M., 40 Churchill's Lane, Milton, Mass. (60).
- *Brewer, Prof. Wm. H., 418 Orange St., New Haven, Conn. (20). 1875.
E F I
- Brewster, Edwin Tenney, Andover, Mass. (51). **F G**
- Brewster, Frank, Ames Building, Boston, Mass. (61). **H**
- Brewster, Frank H., M. E., 180 Woodbridge Ave., Buffalo, N. Y. (51). **D**
- BRICE, JUDGE ALBERT G., 901 Hennen Building, New Orleans, La. (32). **H**
- Brichett, Dr. J. G., Cardwell, Mo. (58).
- *Bridge, Norman, M. D., Pasadena, Cal. (51). 1906. **H I K L**

MEMBERS AND FELLOWS.

- Briganti, P., M. D., 205 East 17th St., New York, N. Y. (58). **K**
- Briggs, Chas. H., 12 Old Colony Building, Minneapolis, Minn. (60). **C**
- Briggs, Edward Cornelius, M. D., Professor of Dental Materia Medica and Therapeutics, Harvard Medical School, Boston, Mass. (50). **F K**
- Briggs, Herman M., M. D., 113 West 57th St., New York, N. Y. (60). **K**
- Briggs, L. Vernon, M. D., 64 Beacon St., Boston, Mass. (61). **K**
- *Briggs, Lyman J., U. S. Department of Agriculture, Washington, D. C. (48). 1901. **B**
- Briggs, Wallace Alvin, M. D., Box 667, Sacramento, Cal. (51). **K**
- *Brigham, Albert Perry, Professor of Geology, Colgate University, Hamilton, N. Y. (41). 1900. **E**
- *Brigham, William T., Director, B. P. Bishop Museum of Polynesian Ethnology and Natural History, Honolulu, Hawaii. (54). 1909. **H**
- Bright, Richard Riggs, Ordnance Bureau U. S. Navy Department, Washington, D. C. (52). **D**
- Brigstocke, Robert W., Superintendent, Drummond Mines, Giroux Lake Post-office, via Cobalt, Ontario, Canada. (60). **D**
- *Brill, George M., Consulting Engineer, 1134 Marquette Building, Chicago, Ill. (51). 1906. **D**
- Brill, Nathan Edwin, M. D., 48 West 76th St., New York, N. Y. (54). **H K**
- *Brinckerhoff, Walter Remsen, M. D., Asst. Professor of Pathology, Harvard Medical School, Boston, Mass. (55). 1907. **K**
- Brinker, Harry L., 255 Arlington St., Youngstown, Ohio. (60). **C**
- Bristol, John I. D., 1 Madison Ave., New York, N. Y. (49).
- *Bristol, Wm. H., President, The Bristol Company, Waterbury, Conn. (36). 1894. **A B D**
- Britt, Richard H., E. M., Box 55, Rockland, Me. (58). **D**
- *Britton, Nathaniel Lord, Ph. D., New York Botanical Garden, Bronx Park, New York, N. Y. (29). 1882. **E G**
- BRITTON, WILEY, Special Pension Examiner, Springfield, Mo. (40). **F**
- *Britton, Wilton Everett, Ph. D., State Entomologist, Agricultural Experiment Station, New Haven, Conn. (54). 1906. **F**
- Broadhead, Miss Annie M., Bellingham, Wash. (61).
- Broadhurst, Miss Jean, Department of Biology, Teachers College, New York, N. Y. (54). **G**
- Broadrup, George L., M. D., 98 Virginia Ave., Cumberland, Md. (60). **K**
- Brock, Henry M., S. J., Professor of Physics, Ore Place, Hastings, England. (57). **B E**
- Brock, Luther S., M. D., Morgantown, W. Va. (61). **K**
- *Brock, Reginald Walter, Ph. D., Geological Survey, Ottawa, Ontario, Canada. (54). 1907. **E**
- Brodél, Max, Johns Hopkins Hospital, Baltimore, Md. (60). **K**
- Brodrick, Carlton Thayer, 29 Weld Hall, Cambridge, Mass. (57). **D E**
- Broeksmit, Miss Helen, 828 Second Ave., Cedar Rapids, Iowa. (60).
- Bromberg, Frederick G., Mobile, Ala. (60).

- Bronson, Edward Bennett, M. D., 10 West 49th St., New York, N. Y. (49). **K**
- *Bronson, Howard L., Ph. D., Professor of Physics, Dalhousie University, Halifax, Nova Scotia. (58). 1910. **B**
- *Brooke, William Ellsworth, Professor of Mathematics, University of Minnesota, Minneapolis, Minn. (58). 1910. **A**
- Brookover, Charles, Ph. D., Buchtel College, Akron, Ohio. (55). **F**
- *Brooks, Alfred Hulse, U. S. Geological Survey, Washington, D. C. (52). 1905. **E**
- Brooks, Charles, Ph. D., Durham, N. H. (53). **G**
- Brooks, Fred E., Morgantown, W. Va. (58). **F**
- Brooks, J. Ansel, Assistant Professor of Mechanical Drawing, Brown University, Providence, R. I. (54). **ABD**
- Brooks, Miss Martha N., 55 Essex Ave., Gloucester, Mass. (60). **C**
- Brooks, Miles Elijah, care Cons. Dept., Can. Pac. Ry., Windsor Station, Montreal, Can. (61).
- Brooks, Orion, E. E., Superintendent, Heald's Engineering School, 425 McAllister St., San Francisco, Cal. (60). **D**
- Brooks, Paul P. B., Science Teacher, State Line, Ind. (58). **ABC**
- BROOKS, PETER C., 2 Deerfield St., Boston, Mass. (60). **G**
- Brooks, Theodore, British Vice-Consul, Guantanamo, Cuba. (58).
ABDEF
- Brooks, Prof. Wm. P., Amherst, Mass. (38). **CF**
- *Brooks, Wm. R., Director, Smith Observatory, and Professor of Astronomy, Hobart College, Geneva, N. Y. (35). 1886. **ABD**
- Broomall, Henry L., Media, Pa. (58). **H**
- Brosius, Hampton C., M. D., Hood River, Oreg. (60). **K**
- Broughton, Henry Primm, E. E., 640 East Gorham St., Madison, Wis. (60). **D**
- Brown, Hon. Addison, 45 West 89th St., New York, N. Y. (57). **G**
- Brown, Alexander G., Jr., M. D., 1135 West Franklin St., Richmond, Va. (60). **K**
- *Brown, Amos Peaslee, Ph. D., Professor of Geology and Mineralogy, University of Pennsylvania, Philadelphia, Pa. (50). 1906. **E**
- *Brown, Arthur Erwin, Secretary, Zoological Society of Philadelphia, Vice-President and Curator, Academy of Natural Sciences, Philadelphia, Pa. (51). 1905. **F**
- Brown, Calvin S., Ph. D., University, Miss. (54). **EFFG**
- *Brown, Charles W., Department of Geology, Brown University, Providence, R. I. (54). 1909. **E**
- Brown, Rev. Clement, 1440 M St. N. W., Washington, D. C. (52). **I**
- Brown, Cony T., E. M., Socorro, New Mexico. (60). **D**
- Brown, David Walter, Ph. D., 5 Beekman St., New York, N. Y. (55). **D**
- Brown, Edgar, Botanist in Charge of Seed Laboratory, U. S. Department of Agriculture, Washington, D. C. (52). **G**
- Brown, Edgar D., M. D., University of Minnesota, Minneapolis, Minn. (60). **K**

MEMBERS AND FELLOWS.

- Brown, Elias G., M. D., Founder and Director, The Mountain School
Allaben, N. Y. (56). **L**
- *Brown, Elisha Rhodes, President, Stafford Savings and National Banks
Dover, N. H. (50). 1907. **I**
- *Brown, Hon. Elmer Ellsworth, Commissioner of Education, Washington,
D. C. (57). 1907. **IL**
- Brown, Elmer M., M. D., Warburton Block, Tacoma, Wash. (60). **K**
- *Brown, Prof. Ernest William, Yale University, New Haven, Conn. (53).
1906. **AB**
- Brown, Fay Cluff, Ph. D., 220 Reynolds St., Iowa City, Iowa. (55). **B**
- Brown, Frederick M., 54 Wall St., New York, N. Y. (58).
- Brown, George A., 1111 North Prairie St., Bloomington, Ill. (58). **L**
- *Brown, George Lincoln, Ph. D., Professor of Mathematics, South Dakota
State College, Brookings, S. Dak. (55). 1907. **A**
- Brown, Glenn Vinton, 214 De Kalb Square, Philadelphia, Pa. (51).
BCE
- Brown, Harold Chapman, Columbia University, New York, N. Y. (60). **H**
- Brown, Harry Bates, Instructor in Botany, Cornell University, Ithaca,
N. Y. (60). **G**
- Brown, Henry B., President, Valparaiso University, Valparaiso, Ind.
(58). **IL**
- Brown, James, Professor of Physics and Chemistry, William and Vashti
College, Aledo, Ill. (61). **BC**
- Brown, James Spencer, M. D., 43 South Fullerton Ave., Montclair, N. J.
(60). **K**
- *BROWN, JOSEPH STANFORD, 489 Fifth Ave., New York, N. Y. (50)
1906. **D**
- Brown, Julius Arthur, Syrian Protestant College, Beirut, Syria. (60). **B**
- Brown, Lawrason, M. D., Trudeau P. O., Saranac Lake, N. Y. (60). **K**
- Brown, Linwood A., care Kentucky Experiment Station, Lexington, Ky.
(60). **C**
- Brown, Lucius Polk, Food and Drug Commissioner for Tennessee, 818
Church St., Nashville, Tenn. (54). **CE**
- Brown, Nellie A., U. S. Department of Agriculture, Washington, D. C.
(60). **G**
- Brown, Newton H., A. and M. College of Texas, College Station, Tex.
(48). **BD**
- Brown, O. H., M. D., Missouri State Sanatorium for Incipient Tubercu-
losis, Mt. Vernon, Mo. (58). **K**
- *Brown, Robert, Observatory Place, New Haven, Conn. (11). 1874.
ABEFG
- Brown, Robert Marshall, Instructor in Geography, State Normal School,
Worcester, Mass. (48). **E**
- Brown, Samuel B., West Virginia University, Morgantown, W. Va. (40). **E**
- Brown, Stephen Pearson, C. E., 59 East 52nd St., New York, N. Y. (60). **D**
- *Brown, Stewardson, 20 East Penn St., Germantown, Pa. (50). 1906.
GI

- Brown, Thomas C., A. M.,(57). **E**
- Brown, Thomas R., 709 East South St., Frankfort, Indiana. (61).
- Brown, W. Jesse, Richard City, Tenn. (58). **B C D E**
- Brown, W. McCulloh, Bayard, W. Va. (60).
- Brown, Warner, Ph. D., Instructor in Psychology, University of California, Berkeley, Cal. (60). **H**
- Brown, Wm. Adams, 114 East 30th St., New York, N. Y. (57).
- *Brown, William George, Ph. D., Professor of Chemistry, University of Missouri, Columbia, Mo. (58). 1909. **C**
- Brown, Wm. Henry, Assistant in Botany, Johns Hopkins University, Baltimore, Md. (60). **G**
- Browne, Arthur Lee, 213 Courtland St., Baltimore, Md. (56). **C**
- *Browne, Arthur Wesley, Ph. D., Professor of Chemistry, Cornell University, Ithaca, N. Y. (57). 1908. **C**
- *Browne, Charles Albert, Ph. D., 80 South St., New York, N. Y. (52). 1909. **C**
- Browne, Ethel Nicholson, Instructor in Science and Mathematics, Bennett School, Millbrook, N. Y. (60). **A**
- Browne, William Robert, C. E., Bethany Beach, Delaware. (54). **D**
- Brownell, Silas B., 71 Wall St., New York, N. Y. (36).
- Browning, Charles Clifton, M. D., Pottenger Sanatorium, Monrovia, Cal. (51). **K L**
- BROWNING, J. HALL, 199 Chambers St., New York, N. Y. (57).
- *Browning, Philip Embury, Kent Chemical Laboratory, Yale University, New Haven, Conn. (46). 1903. **C**
- *Browning, William, M. D., Professor of Diseases of the Mind and Nervous System Long Island College Hospital, Brooklyn, N. Y. (53). 1906. **H K**
- Brubaker, William, Baldwin, Long Island, N. Y. (58). **A E L**
- Bruce, Robert E., Assistant Professor of Mathematics, Boston University, Boston, Mass. (60). **A**
- Bruckner, Arthur, Instructor in Physics, College of the City of New York, New York, N. Y. (55). **B D L**
- Bruegel, A Theodore, M. E., The Hess-Bright Manufacturing Co., Philadelphia, Pa. (60). **D**
- *Brues, Charles Thomas, Instructor in Economic Entomology, Bussey Institution, Jamaica Plain, Mass. (54). 1906. **F**
- Brugger, Harvey, 218 No. Wood St., Fremont, Ohio. (60).
- Bruggerhof, F. W., 33 Barclay St., New York, N. Y. (49).
- *Brumback, A. M. Granville, Ohio. (60). 1910. **C**
- Brumbaugh, Gaius Marcus, M. D., 905 Massachusetts Ave., Washington, D C. (60). **K**
- Brundage, Albert Harrison, M. D., Milwaukee Medical College, 2404 State St. Milwaukee, Wis. (43). **F G H K**
- Bruner, Frank G., care Board of Education, 808 Tribune Building, Chicago, Ill. (55). **H K**

MEMBERS AND FELLOWS.

- *Bruner, Henry Lane, Ph. D., 360 South Ritter Ave., Indianapolis, Ind. (50). 1906. **F**
- *Bruner, Lawrence, Professor of Entomology, University of Nebraska, Lincoln, Nebr. (50). 1901 **F**
- BRUNTON, DAVID WILLIAM, E. M., 730 Symes Building, Denver, Colo. (50). **D E**
- *Brush, Charles Francis, The Arcade, Cleveland, Ohio. (35). 1886. **B**
- *BRUSH, PROF. GEORGE JARVIS, Yale University, New Haven, Conn. (4). 1874. **C E**
- Bryan, Enoch Albert, LL. D., President, Washington State College, Pullman, Wash. (54). **I**
- *Bryan, William Alanson, President, Pacific Scientific Institution, Honolulu, Hawaii. (55). 1908. **F**
- *Bryan, William Lowe, Ph. D., Indiana University, Bloomington, Ind. (49). 1900. **H**
- Bryant, Austin T., M. D., McKinney, Texas. (60). **K**
- Bryant, Dixie Lee, Ph. D., 1919 Jackson Boulevard, Chicago, Ill. (42). **E**
- Bryant, Edward Sohier, 141 Milk St., Boston, Mass. (56). **E**
- *Bryant, Ernest C., Professor of Physics and Mathematics, Middlebury College, Middlebury, Vermont. (60). 1910. **B**
- *Bryant, Henry G., 2013 Walnut St., Philadelphia, Pa. (51). 1905. **E**
- *Bryant, Owen, Cohasset, Mass. (54). 1906. **F K**
- Bryce, Rev. George, D. D., LL. D., President, Royal Society of Canada, 189 Colony St., Winnipeg, Manitoba, Canada. (57).
- Bryson, Andrew, C. E., President, Brylgon Steel Casting Co., New Castle, Del. (51). **D I**
- Bubb, Henry, Ullenwood, near Cheltenham, England. (60).
- Buchanan, Edward F., 128 East Crescent St., Marquette, Mich. (60). **C**
- Buchanan, James Isaac, Vice-President, Pittsburg Trust Co., Pittsburg, Pa. (51). **I**
- *Bucher, John Emery, Associate Professor of Organic Chemistry, Brown University, Providence, R. I. (54). 1908 **C**
- *Buchner, Edward Franklin, Ph. D., Professor of Philosophy and Education, Johns Hopkins University, Baltimore, Md. (49). 1901. **H L**
- Buck, A. Morris, Professor of Electrical Engineering, T. S. Clarkson Memorial School of Technology, Potsdam, N. Y. (58). **D**
- Buck, J. Etna, Hot Springs, Ark. (60). **F**
- *Buck, Thomas, 609 So. Busey Ave., Urbana, Ill. (58). 1910. **A**
- *Buckhout, William A., Pennsylvania State College, State College, Pa. (20). 1881. **G**
- *BUCKLEY, ERNEST ROBERTSON, Ph. D., Director, Bureau of Geology and Mines and State Geologist of Missouri, Rolla, Mo. (52). 1905. **E**
- Buckman, Ernest U., M. D., 96 South Franklin St., Wilkes-Barre, Pa. (60). **K**
- *Budington, Robert Allyn, Associate Professor of Biology, Oberlin College Oberlin, Ohio. (52). 1910. **F K**

MEMBERS AND FELLOWS.

- Bueno, J. R. de-la-Torre, White Plains, N. Y. (58). **F**
- Bües, Christian Rudolf August, care Juan E. Talladares, Apartado 987, Lima, Peru. (56). **F**
- *Buffum, Professor Burt C., Worland, Wyoming. (42). 1906. **G**
- Bugbee, Alice Gates, M. D., 69 Hamilton Ave., White Plains, N. Y. (60). **K**
- Buggy, Thomas, Butte, Montana. (60). **C**
- Bull, Coates P., Assistant Professor of Agriculture, University of Minnesota, St. Anthony Park, Minn. (52). **GIL**
- *Bullard, Warren Gardner, Ph. D., Associate Professor of Mathematics, Syracuse University, Syracuse, N. Y. (50). 1906. **AL**
- Bullene, Mrs. Emma F. Jay, 1409 Broadway, Denver, Colo. (50). **H**
- Bullis, Abram Rogers, Macedon, N. Y. (58). **A**
- Bullitt, James B., M. D., Professor of Anatomy, University of Mississippi, University, Miss. (55). **HK**
- Bullock, Earl S., M. D., Silver City, New Mexico. (60). **K**
- Bullock, Royal Wesley, Principal, Normal High School, Greeley, Colo. (61). **L**
- Bump, Milan R., 414 Joplin St., Joplin, Mo. (58). **D**
- *Bumpus, Hermon Carey, Ph. D., Director, American Museum of Natural History, New York, N. Y. (49). 1900. **FL**
- *Burnstead, H. A., Professor of Physics, Yale University, New Haven, Conn. (60). 1910. **B**
- Bundy, Zachary T., M. D., Austin, Texas. (60). **K**
- Bunker, Henry A., M. D., 158 6th Ave., Brooklyn, N. Y. (50). **I**
- *Bunting, Charles Henry, Professor of Pathology, University of Wisconsin, Madison, Wis. (58). 1909. **K**
- Bunting, Martha, De Land, Fla. (60). **FGH**
- Bunzel, Herbert Horace, Ph. D., Bureau of Plant Industry, U. S. Dept. of Agriculture, Washington, D. C. (60). **CG**
- *Burbank, John Emerson, In charge of U. S. Magnetic Observatory, Cheltenham, Md. (57). 1909. **B**
- *BURBANK, LUTHER, Santa Rosa, Cal. (50). 1901. **G**
- Burchard, Anson W., 30 Church St., New York, N. Y. (51). **D**
- Burdick, Alfred S., M. D., 2843 North Hermitage Ave., Chicago, Ill. (58). **K**
- Burdick, Lewis Dayton, Oxford, N. Y. (52). **HI**
- *Burgess, Albert F., Bureau of Entomology, U. S. Department of Agriculture, Washington, D. C. (54). 1906. **F**
- *Burgess, Professor Edward S., 5 West 82d St., New York, N. Y. (47). 1901. **EFGH**
- *Burgess, George Kimball, Ph. D., Bureau of Standards, Washington, D. C. (55). 1907. **ABC**
- Burgess, Laurie Lorne, 409 East Green St., Champaign, Ill., (60). **C**
- *Burgess, Thomas J. W., M. D., Medical Superintendent, Protestant Hospital for the Insane, Montreal, Canada. (38). 1889. **EGH**
- Burk, W. E., Tula, Hidalgo, Mexico. (55). **CK**

MEMBERS AND FELLOWS.

- Burke, Charles Victor, Livingston Hall, Columbia University, New York, N. Y. (60).
- Burke, Charles Vincent, M. D., Dupuyer, Mont. (60). **K**
- Burke, Milo Darwin, C. E., 18 East 4th St., Cincinnati, Ohio. (50).
- A B C D E**
- Burke, Robert E., 156 M St., South Boston, Mass. (50). **C E L**
- *Burkett, Charles William, Ph. D., Director, Agricultural Experiment Station, Manhattan, Kans. (53). 1906. **C**
- Burleigh, Chas. B., E. E., 1 Oak Terrace, Malden, Mass. (58). **D**
- Burleigh, Geo. Wm., 52 Wall St., New York, N. Y. (57). **I**
- Burley, Benjamin T., M. D., 25 High St., Worcester, Mass. (60). **K**
- Burling, Rev. Lancaster C., 411 Clayton St., Waukegan, Ill. (58). **E H K**
- Burling, Lancaster Demorest, Assistant Curator, U. S. National Museum, Washington, D. C. (60). **E**
- Burlingame, Leonas Lancelot, Ph. D., Stanford University, Cal. (58). **G**
- Burlingame, William B., M. E., Exeter, N. H. (60). **D**
- Burnet, Wallace C., U. S. Food Inspection Laboratory, Custom House, Savannah, Ga. (60). **C**
- Burnett, Charles Theodore, Ph. D., Instructor in Psychology, Bowdoin College, Brunswick, Me. (54). **F H I K**
- Burnett, Frederick, 1337 King St., West, Toronto, Canada. (56), **D I**
- *Burnette, F. H., Professor of Horticulture, Louisiana State University, Baton Rouge, La. (54). 1906. **F G**
- Burnham, A. C. Presbyterian Hospital, 70th St. and Madison Ave., New York, N. Y. (57).
- Burnham, George, Jr., C. E., of Burnham, Williams & Co., Baldwin Locomotive Works, Philadelphia, Pa. (51). **D**
- Burnham, Kingsley Allan, Parker House, Boston, Mass. (58). **C**
- Burnham, Stewart Henry, Assistant to State Botanist Geological Hall, Albany, N. Y. (60). **G**
- *Burnham, William Henry, Ph. D., Professor of Pedagogy, Clark University, Worcester, Mass. (58). 1910. **H L**
- Burns, Eleanor I., Professor of Physics, American College for Girls, Constantinople, Turkey. (58). **B**
- Burns, Elmer Ellsworth, Department of Physics and Chemistry High School, Berwyn, Ill. (58). **B C**
- *Burns, George P., Professor of Botany, University of Vermont, Burlington, Vt. (58). 1909. **G**
- Burr, H. M., 106 Lawn Ave., Middletown, Conn. (60). **C**
- BURR, I. TUCKER, 53 State St., Boston, Mass. (60).
- *Burr, Prof. William H., Columbia University, New York, N. Y. (31). 1883. **D**
- Burrell, Ramon Haddock, M. D., Creighton, Nebr. (51). **K**
- *Burrill, Thomas Jonathan, Ph. D., Professor of Botany, University of Illinois, Urbana, Ill. (53). 1905. **G**
- Burroughs, Charles W., 66 Midland Ave, Arlington, N. J. (60).
- Burrow, N. Triggant, M. D., 863 Park Ave., Baltimore, Md. (60). **K**

- Burrows, George H., University of Vermont, Burlington, Vt. (60). **C**
- *Burt, Edward Angus, Ph. D., Professor of Natural History, Middlebury College, Middlebury, Vt. (50). 1901. **G**
- Burt, Frederick Arthur, Professor of Biology, Juniata College, Huntington, Pa. (60). **F**
- Burt, Silas W., 30 Broad St., New York, N. Y. (57). **DEF**
- Burton, Dr. Alfred E., Dean, Massachusetts Institute of Technology, Boston, Mass. (60).
- *Burton, Hon. Theodore E., M. C., Cleveland, Ohio. (52). 1905. **I**
- *Burton-Opitz, Russell, M. D., Ph. D., Head of Department of Physiology, Columbia University, New York, N. Y. (52). 1905. **K**
- *Busch, Frederick Carl, M. D., 145 Allen St., Buffalo, N. Y. (49). 1906. **FK**
- Busck, August, U. S. National Museum, Washington, D. C. (58). **F**
- Bush, John C. F., M. D., Wahoo, Nebr. (51). **K**
- Bush, Miss Lucy P., 133 Howe St., New Haven, Conn. (60). **EG**
- Bushnell, Miss Charlotte, 2232 East 49th St., Cleveland, Ohio. (60).
- *Bushnell, D. I., Jr., care Bureau of Ethnology, Smithsonian Institution, Washington, D. C. (51). 1903. **H**
- Bushnell, George E., Sierra Madre, Cal. (60).
- Bussey, George D., 77 Somerset Ave., Winthrop, Mass. (60).
- *Bussey, W. H., Ph. D., Assistant Professor of Mathematics, University of Minnesota, Minneapolis, Minn. (58). 1909. **A**
- Bustamante, Delfin Sanchez, 1016 Bartolome Metre Adroqué, F. C. S., Argentine Republic, S. A. (57). **G**
- *Butler, Amos W., Secretary, Board of State Charities, Indianapolis, Ind. (30). 1885. **FHI**
- Butler, Bert S., U. S. Geological Survey, Washington, D. C. (57). **E**
- Butler, Matthew Joseph, care Dominion Iron and Steel Co., Ltd., Syducy, N. S., Canada. (51). **ABD**
- Butler, Paul, care U. S. Cartridge Co., Lowell, Mass. (57). **C**
- Butler, W. D., 52 North Normal St., Denton, Texas. (61). **L**
- Butler, Wm. M., Yeatman High School, St. Louis, Mo. (58). **B**
- Butler, Wm. Mill, 321 St. Nicholas Ave., New York, N. Y. (57).
- Butterbaugh, William Sherman, M. D., College View, Nebr. (60). **K**
- Butterfield, Arthur Dexter, Assistant Professor of Mathematics, Worcester Polytechnic Institute, Worcester, Mass. (50). **AD**
- *Butterfield, Kenyon L., President, Massachusetts Agricultural College, Amherst, Mass. (60). 1910. **IL**
- Butters, Charles H., 4132 Lyndale Ave., S., Minneapolis, Minn. (60). **C**
- Butters, Fred King, 815 South 7th St., Minneapolis, Minn. (58). **G**
- Butters, Roy Morrill, Assistant in Geology, University of Colorado, Boulder, Colo. (60). **E**
- Butterworth, W. W., M. D., 3914 Prytania St., New Orleans, La. (60). **K**
- *Buxton, Bertram Henry, M. D., Professor of Experimental Medicine, Cornell University Medical College, New York, N. Y. (54). 1907. **FG**

MEMBERS AND FELLOWS.

- Bye, Mortimer, Wm. S. Merrell Chemical Co., Cincinnati, Ohio. (60). **C**
- Byrnes, Chas. Metcalfe, M. D., Adjunct Professor of Anatomy, University of Virginia, Charlottesville, Va. (57). **K**
- Byrnes, Owen, Mining Engineer, Gould, Mont. (51). **DE**
- Cable, C. C., C. E., P. O. Box 493, Brodhead, Ky. (60). **D**
- *Cady, Hamilton Perkins, Assistant Professor of Chemistry, University of Kansas, Lawrence, Kans. (52). 1906. **BC**
- Cady, Walter B., Peninsular Portland Cement Co., Cement City, Mich. (56). **C**
- *Cady, Walter Guyton, Ph. D., Wesleyan University, Middletown, Conn. (49). 1906. **B**
- Cady, William Hamlin, Chemist, 127 Power St., Providence, R. I. (57). **C**
- Cahill, Thaddeus, E. E., 270 Walnut St., Holyoke, Mass. (60). **D**
- *Cain, William, Professor of Mathematics, University of North Carolina, Chapel Hill, N. C. (50). 1901. **AD**
- Caine, William Phillips, M. E., Box 27, Ensley, Ala. (60). **D**
- Caird, James Morton, C. E., 271 River St., Troy, N. Y. (60). **D**
- *Cajori, Florian, Professor of Mathematics, Colorado College, Colorado Springs, Colo. (50). 1901. **A**
- *Caldwell, Benjamin Palmer, Ph. D., Associate Professor of Chemistry, Tulane University, New Orleans, La. (55). 1909. **C**
- Caldwell, Charles Peter, M. D., 4429 Michigan Ave., Chicago, Ill. (60). **K**
- Caldwell, Joseph S., Peabody College, Nashville, Tenn. (60). **G**
- *Caldwell, Otis William, Ph. D., Professor of Botany, University of Chicago, Chicago, Ill. (49). 1902. **GL**
- Cale, George W., Jr., M. D., 4960 Laclede Ave., St. Louis, Mo. (58). **K**
- Calef, J. Francis, M. D., Middletown, Conn. (60). **K**
- Calhoun, Fred H. H., Ph. D., Professor of Geology and Mineralogy, Clemson Agricultural College, Clemson College, S. C. (54). **E**
- *Calkins, Gary Nathan, Ph. D., care American Express Co., London, England. (49). 1901. **F**
- Calkins, Marshall, M. D., 14 Maple St., Springfield, Mass. (29). **K**
- Calkins, R. D., Mt. Pleasant, Mich. (60). **E**
- Call, Henry Lawrens, Box 1260, Boston, Mass. (57).
- Callen, Alfred Copeland, E. M., 453 Chestnut St., So. Bethlehem, Pa. (61). **B**
- Calm, Charles Emil, Ph. D., P. O. Box 1517, New York, N. Y. (56). **CE**
- *Calvert, Philip Powell, Ph. D., Assistant Professor of Zoology, University of Pennsylvania, Philadelphia, Pa. (50). 1903. **F**
- *Calvert, Sidney, Ph. D., LL. D., University of Missouri, Columbia, Mo. (47). 1903. **C**
- *Calvin, Samuel, Ph. D., LL. D., Director, Iowa Geological Survey, Iowa City, Iowa. (37). 1889. **E**
- *Cameron, Frank Kenneth, Ph. D., Chemist, Bureau of Soils, U. S. Department of Agriculture, Washington, D. C. (49). 1901. **BC**
- Cameron, John E., Central High School, Kansas City, Mo. (54). **FG**

- Cameron, Walter S., 239 West 136th St., New York, N. Y. (58). **BCFG**
- Cammann, Hermann H., 84 William St., New York, N. Y. (49).
- Camp, Frederick A., 32 West 129th St., New York, N. Y. (57). **E**
- Camp, Joseph Parker, 2017 I St. N. W., Washington, D. C. (58). **H**
- *Campbell, Douglas H., Professor of Botany, Stanford University, Cal. (34). 1888. **G**
- Campbell, Edward De Mille, 1555 Washtenaw Ave., Ann Arbor, Mich. (58). **C**
- *Campbell, Henry Donald, Professor of Geology and Biology, Washington and Lee University, Lexington, Va. (52). 1905. **EF G**
- Campbell, Jessie R., 541 West Ave., Rochester, N. Y. (60). **A**
- Campbell, John P., University of Georgia, Athens, Ga. (60). **F**
- *Campbell, Leslie Lyle, Ph. D., 21 Ellery St., Cambridge, Mass. (48). 1910. **B**
- *Campbell, Marius Robison, U. S. Geological Survey, Washington, D. C. (52). 1905. **E**
- Campbell, Miss Mary R., 5457 Washington Ave., Chicago, Ill. (60).
- Campbell, Robert A., Box 441, Fullerton, Nebr. (61) **G**
- Campbell, Wm. Francis, M. D., 394 Clinton Ave., Brooklyn, N. Y. (57). **K**
- Campbell, Wm. Mullan, Assistant Professor of Physics, New York University, New York, N. Y. (57). **B**
- Campbell, William T., 38 Langdon St., Cambridge, Mass. (60). **A**
- *CAMPBELL, WILLIAM WALLACE, Director, Lick Observatory, Mt. Hamilton, Cal. (50). 1901. **A**
- Canfield, Geo. F., 49 Wall St., New York, N. Y. (57).
- Cannaday, Albert A., M. D., Roanoke, Va. (60). **K**
- *Cannon, George Lyman, Instructor in Geology, East Side High School, Denver, Colo. (39). 1901. **E**
- *Cannon, W. A., Ph. D., Desert Botanical Laboratory, Tucson, Ariz. (52). 1905. **G**
- *Cannon, Walter Bradford, Harvard Medical School, Boston, Mass. (54). 1906. **K**
- *Canter, Hall, Ph. D., Professor of Chemistry, Randolph-Macon College Ashland, Va. (54). 1909. **C**
- Cantley, Thomas, E. M., New Glasgow, Nova Scotia. (60). **D**
- Caplin, Jessie, 2748 Hennepin St., Minneapolis, Minn. (60). **A**
- *Capps, Joseph A., M. D., 2532 Prairie Ave., Chicago, Ill. (58). 1909. **K**
- Cardiff, Ira D., Ph. D., Professor of Botany, Washburn College, Topeka, Kans. (58). **G**
- Carey, Everet P., Instructor in Geography, Mission High School, Berkeley, Cal. (50). **E**
- *Carhart, Prof. Henry Smith, LL. D., University of Michigan, Ann Arbor, Mich. (29). 1881. **B**
- Carhart, Paul Worthington, care G. & C. Merriam Co., Springfield, Mass. (56). **B**
- Carle, James T., care U. S. Cast Iron Pipe and Foundry Co., Bessemer, Ala. (60). **C**

MEMBERS AND FELLOWS.

- *Carleton, Mark Alfred, U. S. Department of Agriculture, Washington D. C. (42). 1894. **E G**
 Carleton, Spencer, M. D., 71 West 50th St., New York, N. Y. (58). **B C**
 Carlin, Joseph P., C. E., 16 East 23d St., New York, N. Y. (60). **D**
 Carlitz, Joseph S., 159 North Second St., Philadelphia, Pa. (60). **C**
 *Carlson, Anton Julius, Ph. D., Associate in Physiology, University of Chicago, Chicago, Ill. (52). 1906. **K**
 Carlyle, Elmer C., College Station, Tex. (58). **C E**
 *Carmalt, William Henry, M. D., Professor of Surgery, Yale University, New Haven, Conn. (54). 1906. **K**
 *Carman, Albert Pruden, Professor of Physics, University of Illinois, Urbana, Ill. (58). 1910. **B**
 Carman, Albro R., M. D., 27 West 127th St., New York, N. Y. (60). **K**
 Carmody, T. E., M. D., 1427 Stout St., Denver, Colo. (60). **K**
 Carnegie, Thomas Morrison, 542 Fifth Ave., New York, N. Y. (50). **F**
 *Carney, Frank, Professor of Geology, Denison University, Granville, Ohio. (58). 1910. **E**
 Carpenter, C. U., President, Herring-Hall-Marvin Safe Co., 400 Broadway, New York, N. Y. (60). **D**
 Carpenter, Rev. Charles Knapp, Aurora, Ill. (55). **F**
 Carpenter, F. B., Chief Chemist, Virginia-Carolina Chemical Co., Richmond, Va. (60). **C**
 *Carpenter, Ford A., U. S. Weather Bureau, San Diego, Cal. (44). 1910. **B D E L**
 Carpenter, Frances Ann, M. D., The Bellevue-Manchester, Madison Ave. and Bloom St., Baltimore, Md. (54). **K**
 *Carpenter, Franklin R., Ph. D., 508 Equitable Building, Denver, Colo. (50). 1906. **D E**
 *Carpenter, Frederic Walton, Ph. D., Instructor in Zoology, University of Illinois, Urbana, Ill. (58). 1909. **F**
 Carpenter, Leonard, Box 797, Medford, Oregon. (57).
 *Carpenter, Louis G., Director, Agricultural College, Fort Collins, Colo. (32) 1889. **D**
 Carpenter, William B., 54 Brooksdale Road, Brighton, Mass. (58). **A L**
 Carr, William Kearny, 1413 K St. N. W., Washington, D. C. (52). **B I**
 *Carr, William Phillips, M. D., 1418 L St. N. W., Washington, D. C. (51). 1906. **K**
 Carrier, Aubrey D., Mechanicsville, N. Y. (60). **C**
 Carrington, Thomas Spees, M. D., 105 East 22d St., New York, N. Y. (55). **H K**
 Carroll, Anna Laurie, Instructor in Physics, State Normal School, Plattsburg, N. Y. (57). **B**
 Carruth, John G., Indiana Ave. and Rosehill St., Philadelphia, Pa. (54) **D**
 Carson, Charles M., University of New Brunswick, Fredericton, New Brunswick, Canada. (60). **C**
 Carson, Lewis Clinton, 181 West Alexandria Ave., Detroit, Mich. (54). **I**

- Carson, William T., M. D., Holstein, Nebr. (60). **K**
- Carstens, J. Henry, M. D., Detroit, Mich. (58). **K**
- *Carter, Benjamin Edward, 142 St. Botolph St., Boston, Mass. (58)
1909. **A**
- Carter, Bernard M., Thomsen Chemical Co., Baltimore, Md. (60). **C**
- Carter, Charles, Parsons College, Fairfield, Iowa. (60). **A**
- Carter, Charles W., M. D., Clinton, Ill. (60). **K**
- Carter, Curtis C., Chapin, Ill. (61). **A**
- Carter, Miss Edna, Ph. D., Instructor in Physics, Vassar College, Poughkeepsie, N. Y. (60). **B**
- Carter, Edward Perkins, M. D., 1872 East 97th St. Cleveland, Ohio. (60). **K**
- *Carter, James Madison G., M. D., 910 First National Bank Building, Chicago, Ill. (39). 1895. **F**
- Carter, John E., 5356 Knox St., Germantown, Pa. (33). **BH**
- Carter, Richard William, C. E., Marathon, Fla. (60). **D**
- Carter, Robert A., 4 Irving Place, New York, N. Y. (58).
- Carty, John Joseph, American Telephone and Telegraph Co., 15 Dey St. New York, N. Y. (54). **D**
- *Carus, Paul, Ph. D. Editor, Open Court Publishing Co., 1322 Wabash Ave., Chicago, Ill. (40). 1895. **H**
- Cary, Austin, Forest, Fish and Game Commission, Albany, N. Y. (60).
- Case, Clarence E., M. D., Corner Park and Center Sts., Ashtabula, Ohio. (60). **K**
- *Case, Ermine Cowles, Department of Geology. University of Michigan Ann Arbor, Mich. (50). 1906. **BCE**
- Case, James Francis, C. E., Manila, P. I. (60). **D**
- Case, Willard E., Auburn, N. Y. (57).
- Case, Zophar, M. D., Warrensburg, Mo. (58). **GHK**
- *Casey, Thomas Lincoln, Lieut.-Col., Corps of Engineers, U. S. A., Office of Light House Board, Washington, D. C. (38). 1892. **DF**
- *Castle, William E., Ph. D., Payson Road, Belmont, Mass. (52). 1903
F
- Catlett, Charles, E. M., Staunton, Va. (58). **D**
- *Catlin, Charles Albert, 133 Hope St., Providence, R. I. (33). 1895. **C**
- Catlin, Guy H., Science Master, Cathedral School of St. Paul, Garden City, Long Island, N. Y. (60). **A**
- *CATELL, JAMES MCKEEN, Ph. D., Professor of Psychology, Columbia University, New York, N. Y. (44). 1896. **BFIH**
- Caudell, A. N., U. S. National Museum, Washington D. C. (60) **F**
- Cazin, Adele, 11 Elston Road, Upper Montclair, N. J. (60). **B**
- Cederberg, W. E., Professor of Mathematics, Augustana College, Rock Island, Ill. (60). **A**
- Cerna, David, M. D., Ph. D., Mayor, Monclova, Coahuila, Mexico. (51). **K**
- Chace, Arnold B., 324 Angell St., Providence, R. I. (60). **A**
- Chadbourn, Erlon R., Melrose, Mass. (29).

MEMBERS AND FELLOWS.

- Chadbourne, Arthur P., M. D., Peterboro, N. H. (58). **K**
- *Chadwick, George Halcott, Professor of Geology and Biology, St. Lawrence University, Canton, N. Y. (54). 1909. **EF**
- *Chail , Stanford E., M. D., LL. D., Dean of Medical Department, Tulane University, New Orleans, La. (51). 1903. **K**
- Chalmers, Charles Henry, E. E., 523 7th St., S. E., Minneapolis, Minn. (60). **D**
- *Chamberlain, Charles Joseph, Ph. D., Department of Botany, University of Chicago, Chicago, Ill. (50). 1902. **G**
- Chamberlain, Charles T., Jr., M. D., 306 Franklin St., Natchez, Miss. (60). **K**
- *Chamberlain, Clark Wells, Professor of Physics, Vassar College, Poughkeepsie, N. Y. (53). 1907. **B**
- Chamberlain, Edward Blanchard, 503 West 121st St., New York, N. Y. (57). **FG**
- Chamberlain, Frederic M., care U. S. S. Albatross, San Francisco, Cal. (51). **F**
- Chamberlain, George E., M. E., 1811 Heyworth Building, Chicago, Ill. (60). **D**
- *Chamberlain, Joseph S., Ph. D., Professor of Agricultural Chemistry, Massachusetts Agricultural College, Amherst, Mass. (58). 1910. **C**
- Chamberlain, Philip William, C. E., Guapiles, Costa Rica, C. A. (60). **D**
- Chamberlin, Emerson, 5 Nassau St., New York, N. Y. (57). **IL**
- *Chamberlin, Ralph Vary, Ph. D., Professor of Zoology, Brigham Young University, Salt Lake City, Utah. (58). 1910. **F**
- *Chamberlin, Rollin Thomas, Ph. D., Hyde Park Hotel, Chicago, Ill. (50). 1909. **CE**
- *Chamberlin, Thomas C., Ph. D., LL. D., Head of Department of Geology, University of Chicago, Chicago, Ill. (21). 1877. **BEFH**
- Chambers, Frank R., 842 Broadway, New York, N. Y. (50).
- Chambers, George Gailey, Ph. D., 55 East Essex Ave., Lansdowne, Pa. (58). **ADL**
- Chambers, Harry L., M. D., Lawrence, Kans. (57). **K**
- Chambers, Mary Davoren, Rockford College, Rockford, Ill. (60).
- Chambers, Will Grant, Professor of Education, University of Pittsburg, Pittsburg, Pa. (52). **HL**
- *Chambliss, Charles Edward, Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C. (51). 1906. **FG**
- *Chambliss, Hardee, Ph. D., Department of Chemistry, A. and M. College, Stillwater, Okla. (55). 1910. **C**
- Chancellor, Wm. E., Superintendent of Schools, Norwalk, Conn. (52). **I**
- *Chandler, Prof. Charles F., School of Mines, Columbia University, New York, N. Y. (19). 1875. **C**
- Chandler, Clarence Austin, M. E., 402 Penn Mutual Building, 24 Milk St., Boston, Mass. (52). **BD**
- *Chandler, Elwyn Francis, Professor of Mathematics, University of North Dakota, University, N. Dak. (50). 1909. **AD**

- Chandler, Miss Eva, 55 Stone Hall, Wellesley College, Wellesley, Mass. (61). **L**
- Chaney, Prof. Lucian W., Bureau of Labor, Washington, D. C. (45). **F**
- *Chant, Clarence Augustus, Associate Professor of Astro-Physics, University of Toronto, Toronto, Canada. (54). 1906. **A B**
- *Chanute, O., 61 Cedar St., Chicago, Ill. (17). 1877. **DI**
- Chapin, Charles V., 84 Keene St., Providence, R. I. (60). **I**
- Chapman, George Andrew, M. D., 23 Elm St., Glens Falls, N. Y. (60). **K**
- Chapman, Geo. Henry, Clark Hall, Amherst, Mass. (61). **G**
- Chapman, James E., E. M., Hidalgo, Bonanza, Zac, Mexico. (60). **D**
- Chapman, Miss Mary, 98 Calhoun St., Springfield, Mass. (58). **CG**
- Chapman, Robert Hollister, Geological Survey of Canada, Ottawa, Canada. (52). **E**
- Chappel, H. G., D. D. S., 630 El Dorado Ave., Oakland, Cal. (55). **HK**
- Charles, Fred Lemon, Professor of Biology, College of Agriculture, University of Illinois, Urbana, Ill. (52). **FGL**
- Charles, Rollin Landis, Instructor in Physics, Lehigh University, South Bethlehem, Pa. (58). **AB**
- Charles, Miss Vera K., U. S. Department of Agriculture, Washington, D. C. (57). **G**
- Charlton, Orlando Clarke, 147 Sanger Ave., Dallas, Tex. (51). **EF G**
- Chase, Mrs. Agnes, U. S. Department of Agriculture, Washington, D. C. (54). **G**
- *Chase, Frederick L., Yale University Observatory, New Haven, Conn. (43). 1896. **A**
- Chase, Frederick S., Waterbury, Conn. (60).
- Chase, George Colby, D. D., LL. D., President, and Professor of Psychology, Bates College, Lewiston, Me. (54). **HIL**
- Chase, Harry Gray, Professor of Physics, Tufts College, Tufts College, Mass. (52). **B**
- Chase, Ira Carleton, M. D., 605 Penn St., Fort Worth, Tex. (52). **K**
- *Chase, March F., care Mineral Point Zinc Co., Depue, Ill. (56). 1909. **BC**
- Chase, Walter G., M. D., 279 Marlborough St., Boston, Mass. (60). **K**
- Chatard, J. Albert, M. D., 1225 Maryland Ave., Baltimore, Md. (60). **K**
- Chatburn, George Richard, Professor of Applied Mechanics, University of Nebraska, Lincoln, Nebr. (58). **AD**
- Chauncey, Elihu, 11 West 38th St., New York, N. Y. (57).
- *Chauvenet, Wm. Marc, E. M., 620 Chestnut St., St. Louis, Mo. (50). 1901. **CD**
- Chazal, Philip E., P. O. Box 284, Charleston, S. C. (60). **C**
- Cheesman, Frank P., 100 William St., New York, N. Y. (60). **C**
- *Cheesman, Timothy Matlack, M. D., Garrison, N. Y. (50). 1901. **KL**
- Cheever, Clarence Alonzo, M. D., 1531 Blue Hill Ave., Boston, Mass. (53). **GK**
- Cheney, Newel, R. F. D. 71, Falconer, N. Y. (52). **EG**
- Cheney, W. L., M. E., Meriden, Conn. (60). **D**

MEMBERS AND FELLOWS.

- Chenoweth, Walter W., Normal School, Chillicothe, Mo. (58). **B C E F G**
- *Chesnut, Victor King, Box 254, Hyattsville, Md. (54). 1909. **C G**
- *Chester, Colby M., Rear Admiral, U. S. N., 1736 K St. N. W., Washington, D. C. (28). 1897. **E**
- Chester, Wayland Morgan, Professor of Biology, Colgate University Hamilton, N. Y. (50). **F G**
- Chester, Webster, Associate Professor of Biology, Colby College, Waterville, Me. (57). **F**
- Chilcott, Ellery Channing, Fairfax C. H., Va. (50). **E**
- *Child, Charles Manning, Ph. D., Assistant Professor of Zoology, Hull Zoological Laboratory, University of Chicago, Chicago, Ill. (50). 1901. **F**
- Childers, L. F., Professor of Agronomy, University of Idaho, Moscow, Idaho. (61). **F G**
- Childs, John Lewis, Floral Park, N. Y. (57). **E F G**
- Chippendale, Arthur, E. M., American Club, Mexico, D. F., Mexico. (60). **D**
- Chisholm, Hugh J., 813 Fifth Ave., New York. N. Y. (50)
- Chisolm, George E., 290 South St., Morristown, N. J. (50)
- *Chittenden, Frank Hurlbut, Ph. D., U. S. Department of Agriculture, Washington, D. C. (48). 1901. **F**
- Chittenden, Lieut.-Col. H. M., Corps of Engineers, U. S. A., Seattle, Wash. (60). **D**
- *Chittenden, Jonathan Brace, Ph. D., Brooklyn Polytechnic Institute, Brooklyn, N. Y. (53). 1906. **A**
- *Chittenden, Russell H., Ph. D., Director, Sheffield Scientific School, Yale University, New Haven, Conn. (50). 1901. **K**
- Chivers, Arthur Houston, 46 Conant Hall, Cambridge, Mass. (57). **F G**
- Chowning, William M., M. D., 701 Donaldson Building, Minneapolis, Minn. (60). **K**
- Christensen, Frederick Waldemar, State College, Pa. (58). **C K**
- Christian, Henry A., M. D., 252 Marlborough St., Boston, Mass. (60). **K**
- Christian, Wilmer, M. D., 530 Lemcke Building, Indianapolis, Ind. (58). **K**
- Christianson, Andrew, cor. Pearl and Washington Sts., Butler, Pa. (58). **D**
- Christie, E. W., Sewaren, N. J. (58). **D**
- Christie, Emerson Brewer, Bureau of Science, Manila, P. I. (61). **H**
- *Christie, James, Chief Mechanical Engineer, American Bridge Co., 100 Rochelle Ave., Wissahickon, Philadelphia, Pa. (33). 1894. **D**
- *Chrysler, Mintin Asbury, Ph. D., Associate Professor of Botany, University of Maine, Orono, Me. (57). 1909. **G**
- Church, Arthur Latham, 500 North Broad St., Philadelphia, Pa. (54).
- Church, Col. Benj. S., 34 Gramercy Park, New York, N. Y. (57).
- Church, Myron J., E. M., Secretary, Davis Manufacturing Co., 15th Ave. and Park St., Milwaukee, Wis. (60). **D**

- *Churchill, William, care Corning Glass Works, Corning, N. Y. (52).
1905. **H**
- Churchward, Alexander, 30 Church St., New York, N. Y. (52). **D**
- *Chute Horatio N., Instructor in Physical Sciences, Ann Arbor High School,
Ann Arbor, Mich. (34). 1889. **A B C**
- Claffin, Albert W., 190 Waterman St., Providence, R. I. (60). **C**
- Clapp, Charles H., Massachusetts Institute of Technology, Boston, Mass.
(60).
- *Clapp, Cornelia M., Ph. D., Professor of Zoology, Mt. Holyoke College,
South Hadley, Mass. (31). 1883. **F**
- Clapp, Eugene Howard, 49 Federal St., Boston, Mass. (60). **C**
- *Clapp, Frederick Gardner, 610 Fitzsimons Building, Pittsburg, Pa. (51).
1906. **E**
- Clark, Alfred N., P. O. Box 696, Berlin, Ontario, Canada. (56). **C**
- Clark, Anna M., 416 West 118th St., New York, N. Y. (20). **H**
- Clark, Arthur Lewis, Ph. D., 203 Albert St., Kingston, Ontario, Canada.
(58). **B D**
- Clark, A. Wayne, care Johnson and Johnson, New Brunswick, N. J.
(54). **C**
- *Clark, Austin Hobart, Smithsonian Institution, Washington, D. C. (52).
1906. **E F**
- Clark, Bertha May, Ph. D., 4317 Walnut St., Philadelphia, Pa. (52). **B**
- Clark, Burton W., 1771 T St., Washington, D. C. (58). **C E**
- Clark, Charles Frederick, Ph. D., Instructor in Experimental Plant Breed-
ing, Cornell University, Ithaca, N. Y. (60). **G**
- Clark, Clarence M., Keystone Block, Chattanooga, Tenn. (58). **C**
- Clark, Clarence Munroe, 321 Chestnut St., Philadelphia, Pa. (54). **I**
- Clark, Edmund, 37 Warren St., West Medford, Mass. (50).
- Clark, Ernest D., 401 West 117th St., New York, N. Y. (60). **C**
- *Clark, Friend Ebenezer, Ph. D., Department of Chemistry, Central Univer-
sity, Danville, Ky. (51). 1909. **C**
- Clark, George Edward, Skaneateles, N. Y. (58).
- Clark, George H., Department of Agriculture, Ottawa, Canada. (61). **G**
- Clark, Harriet Bailey, M. D., 112 East Broad St., Columbus, Ohio. (60). **K**
- *Clark, Howard Walton, Bureau of Fisheries, Department of Commerce
and Labor, Washington, D. C. (52). 1906. **F G**
- *Clark, Hubert Lyman, Ph. D., Museum of Comparative Zoology, Cam-
bridge, Mass. (50). 1903. **F**
- Clark, J. Edmund, F. R. M. S., Asgarth, Riddlesdown Road, Purley,
Surrey, England. (61). **E**
- Clark, John D., University of New Mexico, Albuquerque, New Mexico.
(60). **C**
- *Clark, Prof. John E., 34 South Park Terrace, Long Meadow, Mass. (17).
1875. **A**
- Clark, John Jesse, Manager, Text-Book Department, International Text-
Book Co., Scranton, Pa. (50). **B D**

MEMBERS AND FELLOWS.

- Clark, Joseph Payson, M. D., 71 Marlborough St., Boston, Mass. (60). **K**
- *Clark, Judson F., Ph. D., 1164 Pacific St., Vancouver, B. C. (52).
1905. **G**
- Clark, Leonard B., M. D., 36 Sycamore St., Waverley, Mass. (60). **K**
- Clark, M. A., M. D., 117 Cotton Ave., Macon, Ga. (58). **K**
- Clark, Myron Henry, care Boston Rubber Shoe Co., Malden, Mass.
(58). **C D**
- Clark, Paul Franklin, Ph. D., Rockefeller Institute, New York, N. Y.
(61). **K**
- Clark, Robert Watson, University of Michigan, Ann Arbor, Mich. (61).
- Clark, Thomas H., Ph. D., 34 Lancaster St., Worcester, Mass. (40). **C L**
- Clark, Vinton Albert, Agricultural Experiment Station, Urbana, Ill.
(55). **G**
- Clark, Walter Gordon, 149 Broadway, New York, N. Y. (57). **B C D**
- Clark, Wm. Brewster, M. D., 50 East 31st St., New York, N. Y. (33).
C F K
- *Clark, Wm. Bullock, Ph. D., LL. D., Johns Hopkins University, Baltimore, Md. (37). 1891. **E**
- *Clarke, Miss Cora H., 91 Mt. Vernon St., Boston, Mass. (47). 1910. **F G**
- *Clarke, Frank Wigglesworth, LL. D., U. S. Geological Survey, Washington, D. C. (18). 1874. **C**
- Clarke, J. Alexander, C. M. T. High School, 17th and Wood Sts., Philadelphia, Pa. (60). **A H**
- Clarke, James Frederic, M. D., University of Iowa, Fairfield, Iowa. (50).
G K
- *Clarke, John Mason, Ph. D., New York State Geologist and Director of State Museum, Albany, N. Y. (45). 1897. **E**
- *Clarke, Samuel Fessenden, Professor of Natural History, Williams College, Williamstown, Mass. (50). 1901. **F**
- Clarke, Warren Thompson, Professor of Entomology, Berkeley, Cal. (57). **F**
- Clarke, William A., E. E., 1638 Broadway, Toledo, Ohio. (60). **D**
- Clarkson, Banyer, 26 West 50th St., New York, N. Y. (57). **E F G**
- Clausen, Henry P., E. E., 2286 Kenmore Ave., Chicago, Ill. (60). **D**
- Clawson, Arthur Brooks, U. S. Department of Agriculture, Washington, D. C. (58). **F**
- *Claxton, P. P., Department of Education, University of Tennessee, Knoxville, Tenn. (52). 1910. **I**
- Claybaugh, W. W., M. D., 319 Main St., Fort Morgan, Colo. (60). **K**
- Clayberg, George Manfred, Principal, McKinley High School, Chicago, Ill. (58). **A B**
- *Claypole, Edith J., M. D., 50 South Grand Ave., Pasadena, Cal. (46).
1899. **F K**
- Cleaver, Albert Newton, 606 Delaware Ave., South Bethlehem, Pa. (50). **D**
- *Cleaves, Margaret Abigail, M. D., 616 Madison Ave., New York, N. Y. (57). 1908. **B C H K**

- Cleghorn, Allen M., Beechwood, Ridout St., S., London, Canada. (60). **B**
- *Cleland, Herdman F., Ph. D., Assistant Professor of Geology and Botany, Williams College, Williamstown, Mass. (57). 1907. **E G**
- Clement, Harrison, E. M., University Club, Salt Lake City, Utah. (60). **D**
- *Clements, Frederic Edward, Ph. D., Professor of Botany, University of Minnesota, Minneapolis, Minn. (52). 1905. **G**
- Clements, George E., M. D., Crawfordsville, Ind. (52). **K**
- Clements, Joseph, M. D., 1537 South Main St., Wichita, Kans. (52). **C K**
- *Clements, Julius Morgan, Ph. D., Economic Geologist and Mining Engineer, 1707-42 Broadway, New York, N. Y. (51). 1903. **D E**
- Clerc, Frank Laurent, 516 Mapleton Ave., Boulder, Colo. (50). **C D**
- Clevenger, Joseph Franklin, 838 East 57th St., Chicago, Ill. (57). **F G**
- Clickener, Charles, R. F. D. No. 1, Box 12, Silverwood, Ind. (60). **F**
- *Clifford, Harry Ellsworth, Professor of Electrical Engineering, Harvard University, Cambridge, Mass. (54). 1906. **D**
- Clinch, Edward S., 133 West 121st St., New York, N. Y. (57).
- Cline, Isaac M., M. D., U. S. Weather Bureau, New Orleans, La. (50). **F K**
- *Clinton, George Perkins, Connecticut Agricultural Experiment Station, New Haven, Conn. (54). 1906. **G**
- Cloud, J. H., 608 East Main St., Valparaiso, Ind. (60). **A**
- *Cloud, John W., 82 York Road, Kings Cross, N., London, England. (28). 1886. **A B D**
- *Clough, Homer W., Arcade, N. Y. (54). 1910. **A**
- *Clute, Willard Nelson, Teacher of Botany, Joliet Township High School, Joliet, Ill. (57). 1909. **G**
- Clutz, Frank H., Chambersburg, Pa. (60). **A**
- Coan, Titus Munson, M. D., 70 Fifth Ave., New York, N. Y. (60). **E**
- *Coates, Charles E., Ph. D., Louisiana State University, Baton Rouge, La. (46). 1906. **C**
- *Cobb, Prof. Collier, University of North Carolina, Chapel Hill, N. C. (49). 1905. **E**
- *Cobb, Herbert Edgar, Professor of Mathematics, Lewis Institute, Chicago, Ill. (58). 1908. **A D**
- Cobb, Nathan Augustus, Ph. D., Chief, Division of Crop Technology, Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C. (55). **G**
- Cobleigh, William Merriam, Professor of Chemistry and Physics, Montana Agricultural College, Bozeman, Mont. (56). **B C**
- *Coblentz, Virgil, Ph. D., 115 West 68th St., New York, N. Y. (58). 1910. **C**
- *Coblentz, William W., Bureau of Standards, Washington, D. C. (60). 1910. **B**
- Coburn, Howard L., M. E., 83 Newbury St., Boston, Mass. (60). **D**
- Coca, Arthur F., M. D., Bureau of Science, Manila, P. I. (54). **K**

MEMBERS AND FELLOWS.

- *Cochran, Carlos Bingham, 514 South High St., West Chester, Pa. (43).
1896. **C**
Cochrane, Alexander, 55 Kilby St., Boston, Mass. (60).
Cocke, William Irby, M. D., Port Washington, N. Y. (58). **K**
Cockefair, Edgar Augustus, State Normal School, Cape Girardeau, Mo.
(61). **G**
- *Cockerell, Theodore D. A., Department of Zoology and Botany, University of Colorado, Boulder, Colo. (50). 1901. **FG**
Codman, Ernest A., M. D., 227 Beacon St., Boston, Mass. (60). **K**
- *Coe, George Albert, Professor of Philosophy, Union Theological Seminary,
606 West 122nd St., New York, N. Y. (54). 1906. **HL**
COE, HENRY W., M. D., "The Marquam," Portland, Oregon. (32).
FHK
Coe, Thomas Upham, M. D., Bangor, Me. (51). **K**
Coe, True D., M. D., Keithsburg, Ill. (58). **CEGK**
- *Coe, Wesley Roswell, Ph. D., Professor of Biology, Yale University,
New Haven, Conn. (58). 1910. **F**
Coffeen, Hon. H. A., Sheridan, Wyoming. (51).
Coffey, Walter Castella, 610 West Oregon St., Urbana, Ill. (61). **F**
Coffin, C. A., 145 West 58th St., New York, N. Y. (50).
Coffin, Fletcher Barker, Lake Forest, Ill. (53). **C**
- *Coffin, Joseph George, Ph. D., College of the City of New York, New
York, N. Y. (60). 1910. **B**
- *Coffin, Selden J., Ph. D., Professor of Astronomy, Lafayette College,
Easton, Pa. (22). 1874. **AI**
Coffman, William H., M. D., Georgetown, Ky. (60). **K**
- *Coghill, George Ellett, Ph. D., Professor of Zoology, Denison University,
Granville, Ohio. (52). 1903. **F**
- *Cogswell, Wm. B., Vice-President, Solvay Process Co., Syracuse, N. Y.
(33). 1891. **D**
- *Cohen, Abraham, Ph. D., Johns Hopkins University, Baltimore, Md.
(58). 1909. **A**
Cohen, Mendes, C. E., 825 North Charles St., Baltimore, Md. (50). **D**
Cohen, Morris R., 493 West 135th St., New York, N. Y. (60). **H**
- *Cohen, S. Solis, M. D., 1525 Walnut St., Philadelphia, Pa. (50). 1903.
FK
Cohen, Wm. N., 22 William St., New York, N. Y. (57).
Cohoe, Benson Ambrose, Johns Hopkins Hospital, Baltimore, Md.
(58). **K**
Coil, Nathan Watson, Assistant in Botany, Cornell University, Ithaca,
N. Y. (57). **G**
Coit, John Eliot, Ph. D., Whittier, Cal. (55). **G**
- *Coit, Judson B., Ph. D., Professor of Mathematics and Astronomy, Boston
University, Boston, Mass. (54). 1906. **A**
Cokefair, Charles Coit, E. E., President, Great Northern Development
Co., Duluth, Minn. (60). **D**
- *Coker, Robert Ervin, Ph. D., Darlington, S. C. (57). 1909. **E**

- *Coker, Wm. Chambers, Ph. D., Professor of Botany, University of North Carolina, Chapel Hill, N. C. (52). 1905. **G**
- *COLBURN, RICHARD T., 120 Broadway, New York, N. Y. (31). 1894.
F H I
- Colby, Charles C., 12 North Hall, University of Chicago, Chicago, Ill. (60).
- Cole, Aaron Hodgman, 6022 Monroe Ave., Chicago, Ill. (54). **F G L**
- *Cole, Prof. Alfred D., Ohio State University, Columbus, Ohio. (39). 1891. **B C**
- Cole, Fay Cooper, care Bureau of Science, Manila, P. I. (60).
- Cole, George Watson, Riverside, Conn. (52). **I**
- Cole, Glenn Gates, Professor of Science, Virginia Christian College, Lynchburg, Va. (58). **C**
- Cole, Harry Newton, Instructor in Chemistry, University of Michigan, Ann Arbor, Mich. (58). **B C**
- *Cole, Leon Jacob, Ph. D., Professor of Experimental Breeding, University of Wisconsin, Madison, Wis. (52). 1909. **F**
- *Cole, Percival Richard, Ph. D., Teachers College, Columbia University, New York, N. Y. (58). 1910. **L**
- *Cole, Rufus I., M. D., Director, Rockefeller Hospital, New York, N. Y. (58). 1909. **K**
- *Coleman, Arthur Philemon, University of Toronto, Toronto, Canada. (60). 1910. **E**
- Coleman, Edgar Park, M. E., 271 Franklin St., Buffalo, N. Y. (60.) **D**
- Coleman, Geo. A., Sisson, Cal. 60. **F**
- *Coleman, Warren, M. D., 58 West 55th St., New York, N. Y. (57). 1909. **K**
- Coley, William Bradley, M. D., 5 Park Ave., New York, N. Y., (57). **K**
- Colie, Edw. M., East Orange, N. J. (30) **E I**
- Colket, James Hamilton, E. E., 288 De Kalb Ave., Brooklyn, N. Y. (60). **D**
- Collens, Archibald Edgar, Government Laboratory, Port of Spain, Trinidad, B. W. I. (58). **C G**
- Colley, Bernard T., Superintendent, American Smelters Securities Co., Velardena, Durango, Mexico. (60). **D**
- *Collie, Geo. L., 731 Park Ave., Beloit, Wis. (60). 1910. **E**
- *Collier, Arthur James, U. S. Geological Survey, Washington, D. C. (52). 1905. **E**
- Collier, Price, Tuxedo Park, N. Y. (50).
- Collier, Robt. J., 416 West 13th St., New York, N. Y. (57).
- *Collin, Prof. Alonzo, Low Moor, Iowa. (21). 1891. **B C**
- Collin, Rev. Henry Park, 98 East Chicago St., Coldwater, Mich.. (37).
E H
- *Collingwood, Francis, Elizabeth, N. J. (36). 1888. **D**
- Collins, D. B., M. D., Madison, Wis. (58). **B C F G H K**
- Collins, Guy N., U. S. Department of Agriculture, Washington, D. C. (51). **G**

MEMBERS AND FELLOWS.

- *Collins, James Franklin, Assistant Professor of Botany, Brown University, Providence, R. I. (58). 1909. **G**
- Collins, Katherine R., State Board of Health, Atlanta, Ga. (61). **K**
- Collins, Paul, P. O. Box 697, New Haven, Conn. (60). **C**
- Collins, T. Shields, M.D., 1828 Arlington Ave., Los Angeles, Cal. (51). **K**
- Colony, Roy Jed, Assistant Professor of Metallurgy and Mineralogy, Cooper Union, New York, N. Y. (58). **C**
- Colton, Geo. Henry, Ph. D., Professor of Natural Science, Hiram College, Hiram, Ohio. (51). **B E**
- COLTON, HAROLD SELLERS, Ph. D., 3409 Powelton Ave., Philadelphia, Pa. (54). **F**
- *Colvin, Stephen Sheldon, Ph. D., Professor of Psychology, University of Illinois, Urbana, Ill. (56). 1909. **H**
- *Colvin, Verplanck, President, New York Canadian Pacific Ry., 175 Western Ave., Albany, N. Y. (28). 1880. **E**
- Colvocoresses, George M., E. M., The Millerett Silver Mine, Gowganda, Ont., Canada. (60). **D**
- Comerer, J. Alvin, M. D., Vintondale, Pa. (60). **K**
- *Comey, Arthur M., Ph. D., 424 East 13th St., Chester, Pa. (57). 1908. **C**
- Compton, Miss Edith L., Instructor in Department of Biology, Washington High Schools, 1654 Park Road, Washington, D. C. (54). **G**
- *Comstock, Charles Worthington, Ph. D., C. E., M. E., Boston Building, Denver, Colo. (47). 1901. **A B D**
- *Comstock, Clarence Elmer, Professor of Mathematics, Bradley Polytechnic Institute, Peoria, Ill. (58). 1908. **A L**
- *Comstock, Daniel F., Massachusetts Institute of Technology, Boston, Mass. (52). 1910. **B**
- *Comstock, Elting H., Professor of Mechanics and Mathematics, University of Minnesota, Minneapolis, Minn. (58). 1909. **A**
- *Comstock, Prof. Geo. Cary, Director, Washburn Observatory, University of Wisconsin, Madison, Wis. (34). 1887. **A L**
- *Comstock, John Henry, Professor of Entomology, Cornell University, Ithaca, N. Y. (54). 1906. **F**
- *COMSTOCK, PROF. THEO. BRYANT, E. M., 534 Stimson Building, Los Angeles, Cal. (24). 1877. **B D E**
- *Conant, Charles Arthur, Treasurer, Morton Trust Co., 32 Nassau St., New York, N. Y. (52). 1903. **I**
- *Conant, Levi Leonard, Ph. D., Professor of Mathematics, Worcester Polytechnic Institute, Worcester, Mass. (39). 1892. **A H L**
- Conant, Osmyn P., 70 Fifth Ave., New York, N. Y. (57).
- *Conard, Henry Shoemaker, Ph. D., Professor of Botany, Iowa College, Grinnell, Iowa. (58). 1909. **G**
- Conarroe, Thomas H., M. D., 1807 Wallace St., Philadelphia, Pa. (50). **F K**
- Condon, T. G., 128 Broadway, New York, N. Y. (57).
- Condra, George Evert, Ph. D., Assistant Professor of Geology, University of Nebraska, Lincoln, Nebr. (54). **E**

- Cone, Dr. Lee H., 1216 Prospect St., Ann Arbor, Mich. (61). **C**
- Congdon, Chester A., 807 Lonsdale Building, Duluth, Minn. (58).
- Congdon, Edgar Davidson, Ph. D., 15a Conant Hall, Cambridge, Mass. (57). **F**
- Congdon, Ernest A., 194 Clinton St., Brooklyn, N. Y. (60). **C**
- Congdon, John P., C. E., Pocatello, Idaho. (60). **D**
- *Conklin, Edwin Grant, Ph. D., Professor of Zoology, Princeton University, Princeton, N. J. (50). 1901. **F**
- Conlee, George D., M. E., 71 Carroll St., Binghamton, N. Y. (60). **D**
- *Conn, H. W., Middletown, Conn. (58). 1910. **FG**
- Connaway, John Waldo, M. D., Professor of Veterinary Science, Missouri State University, Columbia, Mo. (52). **FK**
- Connell, J. Harvey, 110 Front St., New York, N. Y. (57). **I**
- Connell, John T., Gulfport, Miss. (55). **G**
- Connelley, Clifford B., Carnegie Technical Schools, Pittsburg, Pa. (58). **D**
- Conner, Lewis Atterbury, M. D., 53 East 49th St., New York, N. Y. (57). **K**
- Connett, James E., M. D., Lawrenceville, Ill. (60). **K**
- Connor, Augustus C., M. D., P. O. Box 8, Lexington, Texas. (60). **K**
- *Connor, Leartus, M. D., President, Michigan State Medical Society, 103 Cass St., Detroit, Mich. (51). 1909. **K**
- Conradi, A. F., South Carolina Agricultural Experiment Station, Clemson College, S. C. (55). **F**
- *Conradson, Pontus H., Chief Chemist, Galena-Signal Oil Co., Franklin, Pa. (51). 1906. **C**
- Conroy, Charles Clifford, 540 East 15th St., Los Angeles, Cal. (60).
- Conser, Harry Newton, Instructor in Botany, University of Maine, Orono, Me. (60). **G**
- Considine, Michael J., 216 West 83d St., New York, N. Y. (57).
- *Converse, Henry Augustus, Ph. D., 1204 Mt. Royal Ave., Baltimore, Md. (54). 1906. **AB**
- Converse, Vernon George, Box 3, Niagara Falls, N. Y. (50). **D**
- *Converse, William A., care Dearborn Drug and Chemical Works, 227 Postal Telegraph Building, Chicago, Ill. (55). 1909. **C**
- Converse, William Hasson, C. E., Converse Bridge Co., Chattanooga, Tenn. (58). **D**
- Conway, Eustace, 15 William St., New York, N. Y. (57).
- Cook, Albert J., Claremont, Cal. (58). **F**
- *Cook, Alfred N., Ph. D., Professor of Chemistry, State University, Vermilion, S. D. (58). 1910. **C**
- Cook, Charles Delano, M. D., 136 Clinton St., Brooklyn, N. Y. (25). **K**
- Cook, Henry Wireman, M. D., Minneapolis, Minn. (60). **K**
- Cook, J. Glenn, Garrison Ave., Baltimore, Md. (60).
- Cook, J. Franklin D., M. D., Langford, S. D. (60). **K**
- Cook, Jane Perry, Head of Department of Geography, Chicago Normal School, Chicago, Ill. (60). **E**

MEMBERS AND FELLOWS.

- Cook, John H., 12 McPherson Terrace, Albany, N. Y. (58). **E**
 Cook, Louis E., M. D., 2716 West 8th St., Cincinnati, Ohio. (60). **K**
 *Cook, Melville Thurston, Ph. D., Newark, Del. (45). 1902. **G**
 *Cook, Orator F., U. S. Department of Agriculture, Washington, D. C. (40). 1892. **G**
 *Cook, Samuel Richard, Ph. D., 283 Reed St., San Jose, Cal. (50). 1903.
- A B**
 Cooke, Charles Montague, Jr., Ph. D., P. O. Box 306, Honolulu, Hawaii. (58). **F**
 Cooke, George Willis, 49 Park Ave., Wakefield, Mass. (47). **H I**
 Cooke, Harte, M. E., care McIntosh, Seymour & Co., Auburn, N. Y. (53). **D**
 Cooke, Louis J., M. D., 909 6th St., S. E., Minneapolis, Minn. (61). **K**
 Cooke, Morris Llewellyn, M. E., 401 West Walnut Lane, Germantown, Pa. (60). **D**
 Cooke, Thomas F., M. E., 857 Delaware Ave., Buffalo, N. Y. (60). **D**
 *Cooley, Grace E., Ph. D., 54 Greenwood Ave., Montclair, N. J. (47). 1900. **G I**
 *Cooley, LeRoy C., Ph. D., 2 Reservoir Square, Poughkeepsie, N. Y. (19). 1880. **B C**
 *Cooley, Mortimer E., Professor of Mechanical Engineering, University of Michigan, Ann Arbor, Mich. (33). 1885. **D**
 *Cooley, Robert Allen, Professor of Zoology, Montana Agricultural College, Bozeman, Mont. (50). 1903. **F L**
 Coolidge, Frederic S., M. D., Pittsfield, Mass. (58). **K**
 COOLIDGE, MRS. J. RANDOLPH, 130 Beacon St., Boston, Mass. (60).
 Coombs, Stephen Elbridge, C. E., 335 Madison Ave., New York, N. Y. (60). **D**
 Cooper, Frank Lawrence, Ph. D., Yale Station, New Haven, Conn. (58). **B**
 *Cooper, Hermon Charles, Ph. D., Associate Professor of Chemistry, Syracuse University, Syracuse, N. Y. (51). 1906. **C**
 Cooper, Thomas P., Agricultural Experiment Station, St. Anthony Park, Minn. (60).
 Cooper, William S., Dept. of Botany, University of Chicago, Chicago, Ill. (58). **E G**
 Coover, Winfred F., Associate Professor of Chemistry, Iowa State College, Ames, Iowa. (61). **C**
 Cope, Henry Fredrick, 72 East Madison St., Chicago, Ill. (58). **H L**
 *Copeland, Edwin Bingham, College of Agriculture, Los Baños, P. I. (45). 1901. **G**
 Copeland, Manton, Ph. D., Instructor in Biology, Bowdoin College, Brunswick, Me. (60). **F**
 Copeland, William Franklin, Ph. D., Professor of Elementary Science, State Normal College, Ohio University, Athens, Ohio. (58). **G**
 *Coplin, William M. L., M. D., Director of Laboratories, Jefferson Medical College, Philadelphia, Pa. (51). 1903. **K**

- *Coquillett, Daniel William, U. S. National Museum, Washington, D. C. (43). 1902. **F**
- *Corbett, Prof. L. C., U. S. Department of Agriculture, Washington, D. C. (48). 1901. **G**
- Core, W. Wallace, M. E., 165 Sherman Ave., Newark, N. J. (60). **D**
- Corey, Fred Brainard, E. E., M. E., 1 Glenwood Boulevard, Schenectady, N. Y. (58). **D**
- *Corey, S. A., Ph. D., Hiteman, Iowa., (58) 1909. **A**
- Coriat, Isador H., M. D., 440 Newbury St., Boston, Mass. (60). **K**
- Cornelison, Robert W., 1582 Chapel St., New Haven, Conn. (51). **C**
- Corning, C. R., E. M., 36 Wall St., New York, N. Y. (60). **D**
- Cornish, George A., Normal School, Peterboro, Ontario, Canada. (52). **F**
- Cornman, Oliver Perry, Ph. D., 422 Church Lane, Philadelphia, Pa. (46). **H I L**
- Corr, Rachael, Agricultural Experiment Station, Berkeley, Cal. (60). **C**
- *Corthell, Elmer Lawrence, No. Egremont, Mass. (34). 1886. **D I**
- Corti, José S., C. E., Casilla 68, Mendoza, Argentine Republic, S. A. (60). **D**
- Corwin, Clifford Egbert, Teacher of Science, Marietta High School, Marietta, Ohio. (50). **C**
- Corwin, Theo. W., M. D., 146 2d Ave., Newark, N. J. (58). **K**
- Coss, James Austin, Chemistry Building, University of Illinois, Urbana, Ill. (58). **C**
- Costello, Harry Todd, 112 South 9th St., Richmond, Ind. (61).
- Cottis, George W., M. D., 119 Main St., Batavia, N. Y. (60). **K**
- Cottman, Nicholas Romanoff, 811 Keyser Building, Baltimore, Md. (57). **E I**
- Cotton, Edwin Charles, Assistant Entomologist, Agricultural Experiment Station, Knoxville, Tenn. (55). **F**
- Cotton, John, M. D., Burnt Hills, N. Y. (60). **K**
- Coulter, Frank E., M. D., 4102 Davenport St., Omaha, Neb. (60). **K**
- Coulter, John Gaylord, Ph. D., 1305 East Washington St., Bloomington, Ill. (58). **F G L**
- *Coulter, John Merle, Ph. D., Professor of Botany, University of Chicago, Chicago, Ill. (32). 1884. **G**
- *Coulter, Samuel Monds, Ph. D., The Shaw School of Botany, St. Louis, Mo. (52). 1905. **G**
- *Councilman, Wm. Thomas, M. D., LL. D., Professor of Pathology, Harvard Medical School, Boston, Mass. (54). 1906. **K**
- Courtis, Stuart Appleton, 441 John R St., Detroit, Mich. (61). **A**
- Courtney, Walter, M. D., Brainerd, Minn. (60). **K**
- Coutant, Richard Bonnet, M. D., Tarrytown, N. Y. (51). **K**
- Covert, Rev. William Ross, McMechen, W. Va. (53).
- *Coville, Frederick V., U. S. Department of Agriculture, Washington, D. C. (35). 1890. **G**
- Cowan, William A., 1063 East 35th St., Brooklyn, N. Y. (58). **A B C**

MEMBERS AND FELLOWS.

- Cowart, Fletcher Jackson, Professor of Natural Science, State Normal College, Troy, Ala. (53). **F**
- Cowdry, Edmund Vincent, University of Chicago, Chicago, Ill. (61). **F**
- *Cowles, Alfred H., care Electric Smelting and Aluminum Co., Lockport, N. Y. (37). 1897. **B C**
- *Cowles, Edward, M. D., 8 Sever St., Plymouth, Mass. (51). 1903. **H K**
- *Cowles, Henry Chandler, Ph. D., Assistant Professor of Botany, University of Chicago, Chicago, Ill. (54). 1906. **G**
- *Cowles, Miss Louise F., South Hadley, Mass. (47). 1905. **E**
- *Cowles, Rheinart Parker, Ph. D., Associate in Biology, Johns Hopkins University, Baltimore, Md. (58). 1910. **F**
- Cowling, Dr. Donald John, President, Northfield University, Northfield, Minn. (60). **H**
- *Cox, Charles F., President, New York Academy of Sciences, Grand Central Station, New York, N. Y. (43). 1900. **F G**
- Cox, Dr. Edgar, Kokomo, Ind. (58).
- Cox, Edmund Otis, C. E., 154 Nassau St., New York, N. Y. (51). **D**
- Cox, Harold Newton, care Lalanc & Grosjean Manufacturing Co., Woodhaven, N. Y. (58). **C D**
- Cox, John H., U. S. Department of Agriculture, Washington, D. C. (61). **C**
- Cox, John Lyman, 1219 Locust St., Philadelphia, Pa. (54). **B D**
- Cox, Nelson H., University of Florida, Gainesville, Fla. (58). **D**
- *Cox, Ulysses Orange, 433 Washington Ave., Terre Haute, Ind. (50). 1906. **F G**
- COXE, ECKLEY B., JR., U. S. Weather Bureau Observatory, Drifton, Pa. (51). **E H**
- Coykendall, Frederick, General Manager, Cornell Steamboat Co., 1 West 72d St., New York, N. Y. (57).
- Coyle, Rev. George L., S. J., Professor of Chemistry, Holy Cross College, Worcester, Mass. (61). **C**
- Coyle, Rev. John S., S. J., St. Joseph's College, 17th and Stiles Sts., Philadelphia, Pa. (48). **B**
- *Crafts, James Mason, Massachusetts Institute of Technology, Boston, Mass. (47). 1898. **C**
- *Cragin, Francis Whittemore, Ph. D., 1715 Wood Ave., Colorado Springs, Colo. (29). 1890. **E F G H**
- *Cragwall, Jasper A., Ph. D., Professor of Mathematics, Wabash College, Crawfordsville, Ind. (57). 1909. **A**
- Craig, Alexander Righter, M. D., 2007 Chestnut St., Philadelphia, Pa. (51). **K**
- Craig, John, Professor of Horticulture, Cornell University, Ithaca, N. Y. (41). **G**
- Craig, Thomas, 26 Selkirk Ave., Montreal, Canada. (57). **G**
- Craig, Wallace, Ph. D., Department of Philosophy, University of Maine, Orono, Me. (50). **F H**
- *Craighead, Edwin Boone, President, Tulane University, New Orleans La. (54). 1906. **G**

***CRAM**, ROYS JONES, 26 Hancock Ave. West, Detroit, Mich. (51). 1906.

F

Cramp, W. M., 1227 North Broad St., Philadelphia, Pa. (54). **D**

*Crampton, Chas. A., M. D., Office of Internal Revenue Commissioner,
U. S. Treasury Department, Washington, D. C. (36). 1887. **C**

*Crampton, Charles Ward, M. D., 500 Park Ave., New York, N. Y. (53).
1907. **K**

*Crampton, Henry Edward, Ph. D., American Museum of Natural History,
New York, N. Y. (51). 1903. **F H**

*Crandall, Prof. Charles Spencer, 1106 West Oregon St., Urbana, Ill.
(40). 1894.

Crandall, Francis Asbury, Librarian of Public Documents, 1636 16th
St. N. W., Washington, D. C. (50). **I**

Crandall, Roderic, Stanford University, Cal. (57). **E**

Crane, Marcus S., Caldwell, N. J. (58). **F**

Crane, Will Edwin, C. E., 77 Van Sieten Ave., Brooklyn, N. Y. (60). **D**

Crane, Rev. William M., Ph. D., Richmond, Mass. (60).

Cranston, Robert E., E. M., Physicians Building, Sacramento, Cal.
(50). **C D E**

*Crathorne, Arthur Robert, Ph. D., 1113 South 4th St., Champaign, Ill.
(60). 1910. **A**

Craver, Harrison Warwick, Carnegie Library, Pittsburg, Pa. (58). **C**

Crawford, J. C., Asst. Curator of Insects, U. S. National Museum, Wash-
ington, D. C. (54). **F**

Crawford, J. Forsyth, Professor of Psychology and Pedagogy, Tabor
College, Tabor, Iowa. (58). **K**

*Crawford, Prof. Morris Barker, Middletown, Conn. (30). 1889. **B**

Crawford, Ralph Dixon, 1085 13th St., Boulder, Colo. (58). **C E**

*Crawford, Russell Tracy, Ph. D., Assistant Professor of Practical Astron-
omy, University of California, Berkeley, Cal. (58). 1910. **A**

*Crawley, Edwin S., Ph. D., University of Pennsylvania, Philadelphia,
Pa. (45). 1900. **A**

Crawley, Howard, Bureau of Animal Industry, U. S. Department of
Agriculture, Washington, D. C. (51). **F**

Crawley, Joseph Sanford, S. E. corner 9th and Jefferson Sts., Philadelphia,
Pa. (54). **I**

Creel, Milton P., M. D., Central City, Ky. (60). **K**

Crees, Robert, M. D., 523 Fourth St., Napa, Cal. (60). **K**

*Crehore, Albert Cushing, 48 Lincoln Terrace, Yonkers, N. Y. (50).
1908. **D E**

*Creighton, James Edwin, Ph. D., Sage Professor of Logic and Meta-
physics, Cornell University, Ithaca, N. Y. (54). 1906. **H**

Cresson, Ezra Townsend, Jr., Swarthmore, Pa. (60). **F**

*Crew, Henry, Professor of Physics, Northwestern University, Evanston,
Ill. (52). 1903. **B**

*Crile, George W., M. D., 6203 Euclid Ave., Cleveland, Ohio. (51).
1903. **K**

MEMBERS AND FELLOWS

- Crispin, Antonio M., M. D., 854 Lexington Ave., New York, N. Y. (60). **K**
- Crites, B. O., 1341 East 89th St., N. E., Cleveland, Ohio. (58). **C**
- Crockard, Frank Hearne, E. M., C. E., Vice-President and General Manager, Tennessee Coal, Iron and Railway Co., Birmingham, Ala. (50). **D**
- Crocker, Edward Edgon, Crafton, Pa. (58). **D**
- *Crocker, Francis B., Professor of Electrical Engineering, Columbia University, New York, N. Y. (50). 1901. **B D**
- CROCKER, MISS SARAH H., 319 Commonwealth Ave., Boston, Mass. (60).
- *Crocker, William, Ph. D., University of Chicago, Chicago, Ill. (58). 1909. **G**
- *Crockett, Prof. Charles W., Rensselaer Polytechnic Institute, Troy, N. Y. (39). 1894. **A D**
- *Crook, Alja Robinson, Ph. D., State Museum of Natural History, Springfield, Ill. (47). 1902. **E**
- Crooker, George Hazard, M. D., 101 Benefit St., Providence, R. I. (60). **K**
- Crosby, Cyrus Richard, Cornell University, Ithaca, N. Y. (57). **F**
- Crosby, Maunsell S., Rhinebeck, N. Y. (57). **F**
- Crosby, Oscar Terry,.....(52). **C E I**
- Crosby, Walter Wilson, C. E., care Johns Hopkins University, Baltimore, Md. (60). **D**
- Crosby, Wm. Edward, 1603 Amsterdam Ave., New York, N. Y. (52).
- *Crosby, William Otis, Professor of Geology, Massachusetts Institute of Technology, Boston, Mass. (47). 1900. **E**
- *Cross, Prof. Charles Robert, Massachusetts Institute of Technology, Boston, Mass. (29). 1880. **B L**
- Cross, Walter M., City Hall, Kansas City, Mo. (58). **C**
- *Cross, Whitman, Ph. D., U. S. Geological Survey, Washington, D. C. (54). 1906. **E**
- Crowe, Albert B., Charleston, Ill. (58).
- Crowe, S. J., M. D., Johns Hopkins Hospital, Baltimore, Md. (60). **K**
- CROWELL, A. F., Woods Hole, Mass. (30). **C**
- *Crowell, John Franklin, Ph. D., 17 West 91st St., New York, N. Y. (50). 1901. **I**
- Crowell, Wm. J., Jr., Lebanon, Pa. (60). **C**
- Crowley, Chas. F., John A. Creighton Medical College, Omaha, Nebr. (53). **C**
- *Croxtton, Fred C., Statistician, U. S. Immigration Commission, Washington, D. C. (54). 1906. **I**
- *Crozier, William, Brigadier-General, U. S. A., and Chief of Ordnance, War Department, Washington, D. C. (50). 1903. **D**
- Crump, Col. M. H., McElroy Building, Bowling Green, Ky. (29). **E**
- Culbreth, David M. R., M. D., 1307 North Calvert St., Baltimore, Md. (60). **K**
- *Cullin, Stewart, Brooklyn Institute of Arts and Sciences, Brooklyn, N. Y. (33). 1890. **H**

- *Cullen, Thomas S., M. D., 3 West Preston St., Baltimore, Md. (54).
1909. **D K**
- *Culver, Garry Eugene, 1103 Main St., Stevens Point, Wis. (54). 1906.
C E
Culver, Miss Helen, 134 North Ashland Blvd., Chicago, Ill. (58).
- *Cumings, Edgar Roscoe, Ph. D., Associate Professor of Geology, Indiana
University, Bloomington, Ind. (48). 1901. **E**
- Cummings, Byron, Dean of School of Arts and Sciences, Salt Lake City,
Utah. (58). **H**
- Cummings, Carlos E., M. D., Secretary, Buffalo Society of Natural History,
Buffalo, N. Y. (57). **F**
- Cummings, Mrs. Charles A., 230 Clarendon St., Boston, Mass. (60).
- Cummings, Marshall Baxter, Vermont Agricultural Experiment Station,
Burlington, Vt. (60). **G**
- Cummins, George Wyckoff, M. D., Belvidere, N. J. (50). **F G K**
- Cunnane, William B., M. D., Santa Barbara, Cal. (60). **K**
- *Cunningham, Prof. Susan J., 3308 Arch St., Philadelphia, Pa. (38).
1901. **A**
- Cuntz, Johannes H., 325 Hudson St., Hoboken, N. J. (36).
- CURIE, CHAS., 22 William St., New York, N. Y. (57).
- Currie, Charles A., M. D., P. O. Box 1606, Philadelphia, Pa. (48). **F K**
- Currie, Thomas R., M. D., 113 East Cumberland St., Philadelphia, Pa.
(60). **K**
- Curtis, Bracey, E. M., Nogales, Arizona. (60). **D**
- *Curtis, Carlton Clarence, Ph. D., Columbia University, New York, N. Y.
(51). 1903. **G**
- Curtis, Edward, M. D., 33 West 69th St., New York, N. Y. (57). **B K**
- Curtis, G. Lenox, M. D., 17 East 45th St., New York, N. Y. (51). **K**
- *Curtis, George Carroll, 11 Wyanoke St., Boston, Mass. (52). 1905. **E**
- Curtis, George W., Manager, Burrus Mill and Elevator Co., Fort Worth,
Tex. (50).
- *Curtis, Heber Doust, Ph. D., Casilla 1219, Santiago, Chile, S. A. (58).
1910. **A**
- Curtis, Lester, 5008 Greenwood Ave., Chicago, Ill. (58).
- *Curtis, Mattoon Monroe, Ph. D., Professor of Philosophy, Western Reserve
University, Cleveland, Ohio. (50). 1906. **H I**
- Curtis, Ralph W., Arnold Aboretum, Jamaica Plain, Mass. (61). **G**
- Curtis, Warren, 30 Broad St., New York, N. Y. (57).
- *Curtis, William E., 1801 Connecticut Ave., Washington, D. C. (40).
1903. **H I**
- *Curtis, Winterton C., Ph. D., 208 Hicks Ave., Columbia, Mo. (53).
1905. **F**
- Curtiss, Charles F., Dean and Director, Iowa State College, Ames, Iowa.
(54). **G**
- *Curtiss, Richard Sydney, Ph. D., Assistant Professor of Organic Chem-
istry, University of Illinois, Urbana, Ill. (52). 1903. **C**

MEMBERS AND FELLOWS.

- Curtiss, Rozel M., M. D., Marengo, Ill. (58). **IK**
- *Cushing, Harvey, M. D., 107 East Chase St., Baltimore, Md. (52).
1906 **K**
- Cushing, Hayward W., M. D., 70 Commonwealth Ave., Boston, Mass.
(61). **K**
- *Cushing, Henry Platt, Adelbert College, Cleveland, Ohio. (33). 1888. **E**
- *Cushman, Allerton S., Ph. D., Bureau of Chemistry, U. S. Department of
Agriculture, Washington, D. C. (50). 1901. **CDEF**
- Cushman, Gerald R., 1103 North Eutaw St., Baltimore, Md. (61).
- Cusick, Laurence F., M. D., 99 Newbury St., Boston, Mass. (60). **K**
- *Cutler, Eldridge Gerry, M. D., 214 Beacon St., Boston, Mass. (54).
1906. **K**
- Cutter, George E. E., 341 Riverside Drive, South Bend, Ind. (58). **D**
- Cutter, Irving S., 3327 Cuming St., Omaha, Nebr. (50). **GK**
- *Dabney, Charles William, Ph. D., President, University of Cincinnati,
Cincinnati, Ohio. (47). 1901. **CIL**
- Dabney, Thomas Gregory, C. E., Clarksdale, Miss. (60). **D**
- *Dachnowski, Alfred P., Ph. D., Assistant Professor of Botany, Ohio State
University, Columbus, Ohio. (57). 1909. **G**
- *da Costa Sena, Dr. Joaquim Candido, Director, School of Mines, Ouro
Preto, Brazil, S. A. (54). 1906. **E**
- *Dadourian, Haroutune Mugurditch, 609 Yale Station, New Haven, Conn.
(60). 1910. **AB**
- Daecke, V. A. Eric, 2114 North 3d St., Harrisburg, Pa. (58). **F**
- Daft, Leo, E. E., Rutherford, N. J. (58). **D**
- Daggett, Herbert Chapin, E. E., 176 Federal St., Boston, Mass. (60). **D**
- Daggette, Alvin S., M. D., 400 South Craig St., Pittsburg, Pa. (50). **FK**
- *Dahlgren, Ulric, Ph. D., Assistant Professor of Biology, Princeton Uni-
versity, Princeton, N. J. (51). 1905. **F**
- Dahm, Thomas M., Science Hall, Madison, Wis. (58). **ABD**
- Dailey, Wilber M., M. D., 19 East 69th St., New York, N. Y. (58). **K**
- *Dains, Frank Burnett, Ph. D., Professor of Chemistry, Washburn College,
Topeka, Kans. (56). 1908. **C**
- Dake, Richard W., M. D., 218 7th Ave., N., Nashville, Tenn. (60). **K**
- Dakin, Channing E., M. D., Century Block, Mason City, Iowa. (58).
EHIK
- Daland, Rev. William Clifton, D. D., President, Milton College, Milton,
Wis. (52). **I**
- Dalcour, Gustave T., Ellicott City, Md. (60).
- *Dales, Benton, Ph. D., Professor of Analytical Chemistry, University of
Nebraska, Station A, Lincoln, Nebr. (56). 1908. **C**
- *Dall, William Healey, Smithsonian Institution, Washington, D. C. (18).
1874. **FG**
- Dalrymple, William Haddock, Professor of Veterinary Science,
Louisiana State University, Baton Rouge, La. (50). **K**
- Damon, Geo. G., care Black Mountain Mining Co., Magdalena, Sonora,
Mexico. (58). **CD**

MEMBERS AND FELLOWS

- Damon, John Churchill, E. E., Ames, Colo. (60). **D**
- *Dana, Charles Loomis, M. D., LL. D., 53 West 53d St., New York, N. Y. (46). 1899. **H K**
- Dana, Edmund Trowbridge, 113 Brattle St., Cambridge, Mass. (60).
- *Dana, Edward Salisbury, 24 Hillhouse Ave., New Haven, Conn. (23). 1875. **B E**
- Daniel, J. Frank, University of Michigan, Ann Arbor, Mich. (60). **F H**
- Daniel, John, Professor of Physics, Vanderbilt University, Nashville, Tenn. (50). **B**
- Daniels, Francis, Ph. D., Wabash College, Crawfordsville, Ind. (60). **G**
- Daniels, Joseph, Asst. Professor of Mining Engineering, Lehigh University, South Bethlehem, Pa. (61). **D E L**
- Darling, John Henry, C. E., 532 West 3d St., Duluth, Minn. (60). **D**
- Darling, William Lafayette, Chief Engineer, Northern Pacific Railway, 737 Ashland Ave., St. Paul, Minn. (60). **D**
- *Darlington, Thomas, M. D., 48 West 59th St., New York, N. Y. (57). 1908. **K**
- Dart, Carlton Rollin, C. E., 1536 West Monroe St., Chicago, Ill. (60). **D**
- *Darton, Nelson H., U. S. Geological Survey, Washington, D. C. (37). 1893. **E**
- Dascher, Henry, 1 Madison Ave., New York, N. Y. (58). **C**
- Dashiell, W. W., M. E., 848 St. Nicholas Ave., New York, N. Y. (60). **D**
- Daugherty, Lewis S., Ph. D., Professor of Zoology, State Normal School, Kirksville, Mo. (53). **F**
- *d'Auria, Luigi, 435 South 51st St., Philadelphia, Pa. (51). 1903. **A D**
- *Davenport, Charles Benedict, Ph. D., Director, Station for Experimental Evolution, Cold Spring Harbor, Long Island, N. Y. (46). 1898. **F G**
- Davenport, Mrs. Elizabeth Braxton, Lindenhurst, Brattleboro, Vt. (57). **F G**
- *Davenport, Prof. Eugene, Dean, College of Agriculture, University of Illinois, Champaign, Ill. (39). 1909. **G**
- Davenport, Francis Henry, M. D., 419 Boylston St., Boston, Mass. (50). **F K**
- Davey, Wheeler P., 4123 East 95th St., Cleveland, Ohio. (60).
- David, William King, 829 West Cambria St., Philadelphia, Pa. (60). **A**
- Davidson, George M., 211 North East Ave., Oak Park, Ill. (60). **C**
- *Davidson, James Grant, Ph. D., McGill University College, Vancouver, B. C. (58). 1910. **B L**
- Davidson, Robert James, Virginia Polytechnic Institute, Blacksburg, Va. (40). **C**
- Davies, Arthur Ernest, Ph. D., Ohio State University, Columbus, Ohio. (53). **I**
- Davies, Julien T., 34 Nassau St., New York, N. Y. (57).
- Davies, William Gilbert, LL. D., 32 Nassau St., New York, N. Y. (49). **I**
- Davis, Abial B., 129 East Lincoln Ave., Mt. Vernon, N. Y. (44). **A**
- *DAVIS, ANDREW McFARLAND, 10 Appleton St., Cambridge, Mass. (35). 1906. **H**

MEMBERS AND FELLOWS.

- *Davis, Bergen, Ph. D., Adjunct Professor of Physics, Columbia University, New York, N. Y. (49). 1905. **B**
- *Davis, Bradley Moore, Ph. D., 1611 Massachusetts Ave., Cambridge, Mass. (45). 1897. **G**
 Davis, C. A., Ph. D., U. S. Geological Survey, Washington, D. C. (60). **E**
 Davis, Charles Gilbert, M. D., 31 Washington St., Chicago, Ill. (51). **KL**
- *Davis, Charles Henry, Rear Admiral, U. S. N., Retired, Navy Department, Washington, D. C. (40). 1896.
 Davis, Charles Henry, E. E., South Yarmouth, Mass. (58). **D**
 Davis, Charles P., Myrick Building, Springfield, Mass. (61).
 Davis, David John, M. D., 839 Lakeside Place, Chicago, Ill. (60). **K**
 Davis, Donald Walton, 14 Ellsworth Ave., Cambridge, Mass. (55). **FG**
 Davis, Edward E., 47 West Main St., Norwich, N. Y. (50). **EG**
- *Davis, Ellery Williams, Ph. D., Professor of Mathematics, University of Nebraska, Lincoln, Nebr. (55). 1906. **A**
 Davis, Grace Evangeline, Associate Professor of Physics, Wellesley College, Wellesley, Mass. (57). **B**
- *Davis, Harvey Nathaniel, Ph. D., 507 Craigie Hall, Cambridge, Mass. (60). 1910. **AB**
 Davis, Herbert B., Ph. D., State Normal School, California, Pa. (60). **K**
 Davis, Herbert Spencer, Ph. D., University of Florida, Gainesville, Fla. (57). **F**
- *Davis, Herman Stearns, Ph. D., 409 Penn Building, Pittsburg, Pa. (50). 1901. **ADI**
 Davis, John D. L., M. D., Davis Infirmary, Birmingham, Ala. (60). **K**
- *Davis, John Jefferson, M. D., 1119 College Ave., Racine, Wis. (31). 1899. **GK**
 Davis, John June, 4261 Waveland Ave., Chicago, Ill. (58). **F**
 Davis, John Staige, M. D., 1228 North Calvert St., Baltimore, Md. (60). **K**
- Davis, Kary Cadmus, Ph. D., New Brunswick, N. J. (50). **BCDGL**
 Davis, Lincoln, M. D., 217 Beacon St., Boston, Mass. (60). **K**
- *Davis, N. S., 291 East Huron St., Chicago, Ill. (50). 1909. **FGK**
- *Davis, Nathaniel French, LL. D., Professor of Pure Mathematics, Brown University, Providence, R. I. (54). 1906. **A**
 Davis, W. Walley, 117 Pine St., Harrisburg, Pa. (60). **C**
- *Davis, Wm. Harper, 3032 North 15th St., Philadelphia, Pa. (50). 1903.
HI
- *Davis, Prof. Wm. Morris, 17 Francis Ave., Cambridge, Mass. (33). 1885. **BE**
 DAVIS, Wm. T., 146 Stuyvesant Place, New Brighton, N. Y. (57). **K**
- *Davison, Alvin, Ph. D., Professor of Biology, Lafayette College, Easton, Pa. (49). 1905. **F**
 Davison, John Mason, Pittsford, N. Y. (38). **C**
- *Davison, Schuyler Colfax, Assistant Professor of Mathematics, Indiana University, Bloomington, Ind. (58). 1908. **A**

- *DAVY, J. BURTT, Government Agrostologist and Botanist, Department of Agriculture, Pretoria, Transvaal, South Africa. (51). 1903. **G**
- Dawkins, Walter I., 408-9 Fidelity Building, Baltimore, Md. (60).
- *Dawson, Percy Millard, M. D., 12 Arlington St., Cambridge, Mass. (50). 1903. **F K**
- Dawson, William Bell, Tidal Survey, Marine Department, Ottawa, Canada. (54). **A B E**
- Day, Leonard H., Hollister, Cal. (58). **F**
- Day, Lucy M., Sage Cottage, Ithaca, N. Y. (61). **H**
- *DAY, WILLIAM SCOFIELD, Ph. D., 220 Hobart Ave., Summit, N. J. (50). 1901. **B**
- *Dean, Arthur Lyman, Ph. D., 1317 Boulevard, New Haven, Conn. (53). 1906. **C D**
- *Dean, Bashford, Ph. D., Professor of Vertebrate Zoology, Columbia University, New York, N. Y. (54). 1906. **F**
- Dean, Rollin Colegrove, 26 Prospect St., Summit, N. J. (61). **F**
- Dean, Seth, C. E., Surveyor of Mills County, Missouri Valley, Iowa. (34). **D H**
- Deans, John Sterling, Chief Engineer, Phoenix Bridge Co., Phoenixville Pa. (51). **D E**
- *Dearborn, George Van Ness, Ph. D., Professor of Physiology, Tufts College Medical and Dental Schools, Boston, Mass. (52). 1906. **K**
- *Dearborn, Walter Fenno, Ph. D., Associate Professor of Education, University of Chicago, Chicago, Ill. (58). 1910. **H L**
- Deavitt, H. M., Consulting Chemist, 56 Fifth Ave., Chicago, Ill. (58). **C**
- De Barr, Edwin, Professor of Chemistry, University of Okla., Norman, Okla. (61). **C**
- De Baufre, William L., E. E., Baltimore Polytechnic Institute, Baltimore, Md. (60). **D**
- de Bey, Cornelia B., M. D., 2325 Michigan Ave., Chicago, Ill. (60). **K**
- Decker, Charles Elijah, 298 Randolph St., Meadville, Pa. (58). **E**
- *Decker, Floyd Fiske, 729 Ostrom Ave., Syracuse, N. Y. (58). 1909. **A**
- Decker, W. F., 304 Andrus Building, Minneapolis, Minn. (60).
- de Coppet, Edward J., 314 West 85th St., New York, N. Y. (57).
- de Coppet, Henry, 754 Park Ave., New York, N. Y. (49).
- Deemer, Justice Horace E., Red Oak, Iowa. (58). **D H I L**
- Deens, Miss Anna M., 216 North Ave. West, Allegheny, Pa. (50). **F G L**
- Deere, Emil Olof, Professor of Biology, Bethany College, Lindsborg, Kans. (60). **E F G K**
- Deerr, Noel, Hawaiian Sugar Planters' Experiment Station, Honolulu, Hawaii. (58). **C**
- de Fodor, Etienne, E. E., Budapest Gen. Electric Co., VII Kazinczy-utca 21, Budapest, Hungary. (60). **D**
- Defoe, Luther Marion, Professor of Mechanics, University of Missouri, Columbia, Mo. (58). **A B D**
- de Forest, Robert Weeks, LL. D., 30 Broad St., New York, N. Y. (49).

MEMBERS AND FELLOWS.

- Defrew, George, 9 Fairbanks St., Brookline, Mass. (60). **C**
 de Geofroy, George, Metropolitan Club, Washington, D. C. (55). **C**
 *Deghué, Joseph Albert, Ph. D., 247 Harrison St., Brooklyn, N. Y. (40).
 1900. **C**
 *Deimel, Richard Francis, 146 Berkeley Place, Brooklyn, N. Y. (52).
 1906. **ABD**
 De Jong, Conrad, M. D., Orange City, Iowa. (58). **K**
 De Kalb, Courtenay, 121 East Avenue 49, Los Angeles, Cal. (54).
 *Delabarre, Edmund Burke, Ph. D., 9 Arlington Ave., Providence, R. I.
 (49). 1901. **HI**
 Delafield, Maturin L., Jr., Kulm Hotel, St. Moritz-Dorf, Engadine,
 Switzerland. (43). **GIL**
 Delamater, Nicholas B., M. D., 809 Marshall Field Annex, Chicago, Ill.
 (58). **K**
 DE LANDERO, CARLOS F., Assistant Director, Paschuca and Real del
 Monte Mining Co., Paschuca, Mexico. (36). **BC**
 *Delano, Frederic A., President, Denver and Rio Grande R. R., 510
 Wellington Ave., Chicago, Ill. (50). 1906. **D**
 Delany, Patrick Bernard, E. E., Nantucket, Mass. (50). **D**
 de Lisle, Justin, M. D., 500 Fifth Ave., New York, N. Y. (54). **K**
 *Dellenbaugh, Frederick S., Century Club, New York, N. Y. (51). 1905.
H
 Dellinger, Oris P., Normal School, Pittsburg, Kans. (58). **K**
 Delm, William Maurice, Ph. D., University Station, Seattle, Wash. (58).
C
 De Loach, R. J. H., Professor of Cotton Industry, State Agricultural
 College, Athens, Ga. (58). **GIL**
 *De Long, Ira Mitchell, 1341 Broadway, Boulder, Colo. (60). 1910. **A**
 *DE LOUBAT, LE DUC, 47 rue Dumont d'Urville, Paris, France. (46).
 1897. **H**
 del Rosario, José I., Bureau of Science, Manila, P. I. (61).
 de Milhau, Louis John de Grenou, 119 East 19th St., New York, N. Y.
 (56). **H**
 Demming, Henry Clay, Consulting Geologist, Mineralogist and Chemist,
 Box 5, Harrisburg, Pa. (54). **CE**
 Demmler, Paul F., Charleston, W. Va. (58). **C**
 Dempster, Alexander, 5721 Stanton Ave., Pittsburg, Pa. (50). **ABEH**
 *de Nanerède, Charles Beylard Guérard, M. D., LL. D., Professor of
 Surgery, University of Michigan, Ann Arbor, Mich. (54). 1909. **K**
 Denig, Blanche A., M. D., Hotel Bristol, Copley Square, Boston, Mass.
 (60). **K**
 *Dennett, William Sawyer, M. D., 8 East 49th St., New York, N. Y. (52).
 1906. **AK**
 *Dennis, David Worth, Ph. D., Professor of Biology, Earlham College,
 Richmond, Ind. (50). 1901. **FG**
 *Dennis, Louis Munroe, Professor of Inorganic Chemistry, Cornell Uni-
 versity, Ithaca, N. Y. (43). 1895. **C**

- Densmore, Emmet, M. D., 471 Park Ave., New York, N. Y. (54) **F K**
- Depew, Hon. Chauncey M., 27 West 54th St., New York, N. Y. (57). **I**
- de Raasloff, Harold, C. E., 18 Burling Slip, New York, N. Y. (51). **D**
- Derby, Lieut.-Col., George McClellan, Corps of Engineers, U. S. Engineer Office, New Orleans, La. (50). **D**
- *Derby, Orville A., Servico Geologico E Mineralogico de Brasil, Rio de Janiero, Brazil, S. A. (39) 1890. **E**
- *Derick, Carrie M., Assistant Professor of Botany, McGill University, Montreal, Canada. (57). 1909. **G**
- Dery, D. George, Catasauqua, Pa. (55). **C G**
- de Schweinitz, George E., M. D., 1705 Walnut St., Philadelphia, Pa. (54). **K L**
- Desmond, G., Chief Government Veterinarian, Adelaide, South Australia. (60). **K**
- de Sta Cecelia, J. Felipe, E. E., Rua Alagoas 56, Bello Horizonte, Minas, Brazil, S. A. (60). **D**
- Detmers, Freda, 459 Vermont Place, Columbus, Ohio. (58). **G**
- Devereux, W. L., Clyde, N. Y. (60). **F**
- Devereux, Walter B., 15 William St., New York, N. Y. (50). **D E**
- Dewey, Grace, M. D., 1123 West State St., Jacksonville, Ill. (60). **K**
- *Dewey, John, Ph. D., LL. D., Professor of Philosophy, Columbia University, New York, N. Y. (58). 1909. **L**
- *Dewey, Lyster H., U. S. Department of Agriculture, Washington, D. C. (40). 1899. **G**
- DeWitt, Charles H., Professor of Histology and Bacteriology, Valparaiso University, Valparaiso, Ind. (58). **K**
- *De Wolf, Frank Walbridge, State Geological Survey, Urbana, Ill. (57). 1909. **E**
- *Dexter, Edwin Grant, Ph. D., San Juan, Porto Rico. (52). 1905. **K**
- Dexter, George, 30 Kilby St., Boston, Mass. (60).
- DEY, ANTHONY, 69 Liberty St., New York, N. Y. (57).
- Dickerman, Miss Elizabeth S., Ingleside School, New Milford, Conn. (60). **A**
- Dickerson, Charles E., Mount Hermon, Mass. (60).
- Dickerson, E. N., 141 Broadway, New York, N. Y. (49).
- Dickerson, Mary Cynthia, Department of Woods and Forestry, American Museum of Natural History, New York, N. Y. (60). **F**
- Dickie, George William, Marvin Building, 24 California St., San Francisco, Cal. (54). **D**
- Dickinson, Breese M., M. D., 5711 Elgin Ave., Pittsburg, Pa. (60). **K**
- Dickinson, Charles, West Taylor St. and The River, Chicago, Ill. (58).
- *Dickinson, H. C., Bureau of Standards, Washington, D. C. (60). 1910. **B**
- Dickson, Archibald A. C., E. M., Rejonlie P. O., via Nawadah E. I. Ry., Gaya District, India. (60). **D**
- Didier, Paul, C. E., B. & O. R. R. Co., N. S., Pittsburg, Pa. (60). **D**
- Diemer, Hugo, Professor of Mechanical Engineering, State College, Pa. (49). **D L**

MEMBERS AND FELLOWS.

- Dietz, Carl Frederick, M. E., 306 Main St., Melrose, Mass. (60). **D**
- Dietz, William G., M. D., 21 North Vine St., Hazleton, Pa. (54). **K**
- Dike, Archie Clarence, Bristol, Vt. (54).
- *Dike, Paul Harrison, Department of Physics, University of Wisconsin, Masdon, Wis. (60). 1910. **B**
- *Diller, Joseph Silas, U. S. Geological Survey, Washington, D. C. (52). 1903. **E**
- Dilworth, James A., M. D., Aberdeen, Miss. (60). **K**
- *Dimick, Chester Edward, 366 Central St., Manchester, N. H. (60). 1910. **A**
- Dimmock, George, R. F. D. No. 1, Springfield, Mass. (22). 1874. **F**
- Dimock, Geo. E., 907 North Broad St., Elizabeth, N. J. (57).
- Dimon, Miss Abigail Camp, 367 Genesee St., Utica, N. Y. (50). **F K**
- Dinkey, Alva C., E. E., 1116 Carnegie Building, Pittsburg, Pa. (50). **D**
- d'Invilliers, Eduard V., E. M., 506 Walnut St., Philadelphia, Pa. (60). **D E**
- Disbrow, William S., M. D., 151 Orchard St., Newark, N. J. (51). **G K**
- Ditman, Norman Edward, M. D., 26 East 48th St., New York, N. Y. (58). **K**
- Diven, John M., C. E., 14 George St., Charleston, S. C. (60). **D**
- Dixon, Brandt B., President, Newcomb College, New Orleans, La. (52). **K**
- *Dixon, Roland Burrage, Ph. D., Assistant Professor of Anthropology, Peabody Museum, Cambridge, Mass. (46). 1901. **H**
- *Dixon, Samuel Gibson, M. D., Academy of Natural Sciences, Philadelphia, Pa. (50). 1906. **F K**
- Doan, Frank C., 519 Chestnut St., Meadville, Pa. (58). **H**
- Doan, Martha, Vassar College, Poughkeepsie, N. Y. (60). **A**
- Doane, R. W., 527 Homer Ave., Palo Alto, Cal. (60). **F**
- Doane, Samuel Everett, E. E., 4411 Hough Ave., Cleveland, Ohio. (60). **D**
- *Dock, George, M. D., 124 Baronne St., New Orleans, La. (51). 1903. **K**
- Dodds, Gideon Stanhope, Biological Hall, University of Pennsylvania, Philadelphia, Pa. (57). **F**
- Dodds, Robert, M. D., 144 Oakwood Boulevard, Chicago, Ill. (58). **K**
- *Dodge, Charles Wright, Professor of Biology, University of Rochester, Rochester, N. Y. (39). 1898. **F G K**
- Dodge, Raymond, 107 Lawn Ave., Middletown, Conn. (58). **H**
- *Dodge, Richard Elwood, Professor of Geography, Teachers College, Columbia University, New York, N. Y. (49). 1901. **E L**
- Dodman, Alfred C., Jr., 19 Euclid Ave., Summit, N. J. (50).
- Dods, John C., E. M., 346 West First St., Cherryvale, Kans. (60). **D**
- *Dodson, John Milton, Professor of Medicine and Dean of Students, Rush Medical College, Chicago, Ill. (54). 1906. **C K**
- *Dodson, W. R., Director and Botanist, Louisiana Experiment Station, Baton Rouge, La. (54). 1906. **G**
- Doering, Prof. C. E., Bryn Athyn, Pa. (60). **A**

- Doherty, Henry L., 60 Wall St., New York, N. Y. (48). **BD**
- Dohme, Alfred R. L., Ph. D., 303 West Pratt St., Baltimore, Md. (60). **C**
- *Dohmen, Franz Joseph, Ph. D., 37 Walker St., Cambridge, Mass. (57).
1910. **A**
- Dole, Rev. Charles Fletcher, 14 Roanoke Ave., Jamaica Plain, Mass.
(50). **I**
- Dolson, Grace Neal, Wells College, Aurora, N. Y. (60). **H**
- Dolt, Maurice L., Ph. D., Asst. Professor of Chemical Engineering,
University of North Dakota, Grand Forks, N. D. (58). **C**
- Dominian, Leon, E. M., Apartado 3021, Mexico, D. F., Mexico. (60).
CD
- *Donaldson, Henry Herbert, Ph. D., Professor of Neurology, Wistar Insti-
tute of Anatomy, Philadelphia, Pa. (54). 1906. **K**
- Dondlinger, Peter Tracy, Ph. D., Yale Station, New Haven, Conn.
(58). **I**
- Donnelly, Thomas F., E. M., care Davis Sulphur Ore Co., Davis, Mass.
(60). **D**
- *Doolittle, Prof. Charles Leander, Flower Astronomical Observatory,
University of Pennsylvania, Upper Darby, Pa. (25). 1885. **A**
- Doolittle, Eric, Upper Darby, Pa. (58). **A**
- Doolittle, Roscoe E., 109 Hillside Ave., Glen Ridge, N. J. (60). **C**
- Doran, Edwin W., Ph. D., Department of Biology, Louisiana Industrial
Institute, Ruston, La. (54). **F**
- Dorner, Herman Bernard, Agricultural Experiment Station, Urbana, Ill.
(57). **G**
- Dorr, Henry I., M. D., 67 Milk St., Boston, Mass. (60). **K**
- *Dorset, Marion, Bureau of Animal Industry, U. S. Department of Agri-
culture, Washington, D. C. (58). 1909. **CK**
- *Dorsey, George A., Ph. D., Field Museum of Natural History, Chicago,
Ill. (39). 1892. **H**
- *Dorsey, Herbert Grove, Ph. D., 404 Oak Ave., Ithaca, N. Y. (51).
1909. **B**
- *Dorsey, N. Ernest, Ph. D., The California, Washington, D. C. (46).
1898. **B**
- Doster, James J., Professor of Secondary Education, University of Ala-
bama, Ala. (61). **L**
- Doty, Paul, care St. Paul Gas Light Co., St. Paul, Minn. (43). **D**
- *Doubt, Thomas Eaton, Ph. D., 5402 Drexel Ave., Chicago, Ill. (48).
1909. **B**
- Doughty, Mrs. Alla, Milford, Pa. (49). **EGL**
- Doughty, Howard Waters, Amherst, Mass. (58). **C**
- Doughty, William H., Jr., M. D., 822 Greene St., Augusta, Ga. (58). **K**
- Douglas, Edward Morehouse, U. S. Geological Survey, Washington, D. C.
(54). **E**
- *Douglas, James, LL. D., 99 John St., New York, N. Y. (49). 1905. **E**
- Douglas, Theodore, E. M., Scarboro, N. Y. (58). **D**
- Douglass, Alfred, 170 West 59th St., New York, N. Y. (57).

MEMBERS AND FELLOWS.

- Douglass, Andrew Ellicott, Department of Physics and Astronomy, University of Arizona, Tucson, Ariz. (58). **AB**
- Douglass, George Lyon, 184 LaSalle St., Chicago, Ill. (55). **I**
- Douglass, Thomas, M. D., Ozark, Ark. (60). **K**
- Doulton, Mrs. Leslie, Box 302, Santa Barbara, Cal. (61). **H**
- *Douty, Daniel Ellis, Bureau of Standards, Washington, D. C. (58). 1910. **B**
- *Dow, Edmund L., M. D., 49 West 57th St., New York, N. Y. (57). 1908. **KL**
- Dow, Eugene M., 101 Trowbridge St., Cambridge, Mass. (58). **ABL**
- Dow, Herbert H., Midland, Mich. (47). **C**
- *Dowd, Jerome, University of Wisconsin, Madison, Wis. (55). 1906. **I**
- Dowell, Philip, Ph. D., 12 Bond St., Port Richmond, N. Y. (50). **G**
- Downey, James E., High School of Commerce, Boston, Mass. (60). **L**
- Downey, James H., M. D., 28 Green St., Gainesville, Ga. (60). **K**
- *Downey, John F., Professor of Mathematics, University of Minnesota, Minneapolis, Minn. (58). 1910. **A**
- Downing, Elliot Rowland, Ph. D., Professor of Biology, Northern State Normal School, Marquette, Mich. (51). **FL**
- Downs, Edgar Selah, Ph. D., Electrical Engineering Department, Columbia University, New York, N. Y. (50). **BD**
- Downs, Norton, M. D., Fordhooke Farm, Three Tuus, Pa. (52). **K**
- Draege, Mathilde, 228 East 69th St., New York, N. Y. (60). **E**
- Drake, Bryant S., Chemical Engineer, 5930 Colby St., Oakland, Cal. (60). **C**
- Drake, George Silas, Jr., M. D., 3737 Washington Ave., St. Louis, Mo. (60). **K**
- Drake, Grandison W., M. D., Hollins Institute, Hollins, Va. (60). **K**
- *DRAKE, NOAH FIELDS, Professor of Geology, Peiyang University, Tientsin, China. (57). 1909. **E**
- Drane, Walter Hugh, Professor of Civil Engineering, University of Mississippi, University, Miss. (58). **D**
- *DRAPER, DANIEL, Ph. D., New York Meteorological Observatory, Central Park, New York, N. Y. (29). 1881. **ABDF**
- *Draper, Mrs. Henry, 271 Madison Ave., New York, N. Y. (49). 1906.
- Drayer, Howard C., Yeatman High School, St. Louis, Mo. (51). **B**
- Dresbach, Melvin, M. D., Assistant Professor of Pharmacology, Cornell University, Ithaca, N. Y. (60). **K**
- Drescher, William A. E., Bausch & Lomb Optical Co., Rochester, N. Y. (41). **F**
- Dresden, Arnold, 1120 West Johnson St., Madison, Wis. (60). **A**
- *Drew, Elmer R., Ph. D., 1321 Waverley St., Palo Alto, Cal. (58). 1910. **B**
- *Drew, Gilman Arthur, Ph. D., Professor of Biology, University of Maine, Orono, Me. (54). 1906. **F**
- *Dreyer, George P., Professor of Physiology and Physiological Chemistry, 3826 Gladys Ave., Chicago, Ill. (58). 1909. **K**
- Drichaus, Irwin W., 1120 Amsterdam Ave., New York, N. Y. (60). **BC**

- Drinker, Henry Sturgis, LL. D., President, Lehigh University, South Bethlehem, Pa. (55). **D I**
- *DROPPERS, GARRETT, President, University of South Dakota, Vermilion, S. Dak. (50). 1901. **I**
- Drowne, Henry B., C. E., Box 3, East Side Station, Providence, R. I. (60). **D**
- Drummond, Isaac Wyman, Ph. D., 436 West 22d St., New York, N. Y. (36).
- Drushel, J. Andrew, Teachers College, St. Louis, Mo. (58). **E L**
- Drushel, William Allen, Yale University, New Haven, Conn. (61). **C**
- *Dryer, Charles Redway, Professor of Geography, Indiana State Normal School, Terre Haute, Ind. (50). 1903. **E L**
- Duane, Alexander, M. D., 149 East 37th St., New York, N. Y. (54). **A H K**
- *Duane, William, Ph. D., care Morgan, Harjes and Co., Hausmann, Paris, France. (50). 1901. **B**
- Dublin, Louis I., Ph. D., Commercial High School, Brooklyn, N. Y. (58). **F G H K**
- *DU BOIS, PROF. AUGUSTUS JAY, New Haven, Conn. (30). 1882. **A B D**
- Du Bois, Ernest, E. M., Apartado 121, 2a San Francisco, No. 5, Mexico, D. F., Mexico. (60). **D**
- Du Bois, Mrs. George W., 789 Belvidere Ave., Plainfield, N. J. (57). **E F G I L**
- *Du Bois, Howard Weidner, 4526 Regent St., Philadelphia, Pa. (47). 1906. **A**
- Dubois, Norman Armin, Ph. D., Case School of Applied Science, Cleveland, Ohio. (58). **C**
- *Du Bois, Patterson, 401 South 40th St., Philadelphia, Pa. (33). 1887. **H I L**
- *Du Bois, W. E. Burghardt, Ph. D., Professor of Sociology, Atlanta University, Atlanta, Ga. (50). 1905. **I**
- Duckwall, Edward Wiley, Bacteriologist and Food Specialist, Aspinwall, Pa. (53). **C**
- *DUDLEY, WM. L., Vanderbilt University, Nashville, Tenn. (28). 1881. **C**
- *Dudley, Wm. Russel, Professor of Botany, Stanford University, Cal. (29). 1883. **G**
- *Duerdon, J. E., Ph. D., Professor of Zoology, Rhodes University College, Grahamstown, South Africa. (52). 1905. **F G K L**
- *Dugan, Raymond Smith, Ph. D., Assistant Professor of Astronomy, Princeton University Observatory, Princeton, N. J. (55). 1907. **A B**
- Dugan, William James, M. D., 2224 South Broad St., Philadelphia, Pa. (57). **K**
- Duggan, Malone, M. D., Moore Building, San Antonio, Tex. (60). **K**
- Duggan, Stephen Pierce, College of the City of New York, New York, N. Y. (61).
- *Duggar, Benjamin Minge, Ph. D., Professor of Plant Physiology, Cornell University, Ithaca, N. Y. (45). 1900. **G**

MEMBERS AND FELLOWS.

- *Duke, Frank Williamson, Virginia Mechanics Institute, Richmond, Va. (50). 1906. **A**
 Dulles, Charles W., M. D., 4101 Walnut St., Philadelphia, Pa. (51). **KL**
- *Dumble, Edwin T., Consulting Geologist, Southern Pacific Co., 2003 Main St., Houston, Tex. (37). 1891. **CE**
 Dummer, Edward Lee, American Hosiery Co., New Britain, Conn. (61).
B H
- Duncan, Frederick N., Ph. D., Oxford, Ga. (50). **CF**
- *Duncan, George Martin, Professor of Philosophy, Yale University, New Haven, Conn. (50). 1902. **HL**
 Duncan, James H., C. E., Searsport, Me. (58). **D**
 Duncan, Robert Andrew, Chemist, P. O. Box 509, Honolulu, Hawaii. (58). **C**
- *Duncan, Robt. Kennedy, Professor of Chemistry, University of Pittsburg, Pittsburg, Pa. (57). 1908. **C**
- DUNCANSON, HENRY BRUCE, Professor of Biology, Nebraska State Normal School, Peru, Nebr. (50). **F**
- DUNHAM, CARROLL, M. D., Hillside, Irvington, N. Y. (57). **K**
- *Dunham, Edward K., M. D., Professor of Pathology, Carnegie Laboratory, New York, N. Y. (30). 1890. **CK**
 Dunham, Herbert Franklin, C. E., 220 Broadway, New York, N. Y. (60). **D**
 Dunham, Theodore, M. D., 48 East 63d St., New York, N. Y. (57). **K**
 Dunipace, Joseph Evans, 2329 Parkwood Ave., Toledo, Ohio. (57). **C**
 Dunkel, Otto, via L'Arcirescorado 2, presso Signora Spegazzina, Pisa, Italy. (60). **A**
- Dunlap, Knight, Ph. D., Associate in Psychology, Johns Hopkins University, Baltimore, Md. (58). **HL**
 Dunlap, Knight, Ph. D., Box 153, Johns Hopkins University, Baltimore, Md. (58). **HL**
 Dunlap, Will Knox, E. E., P. O. Box 911, Pittsburg, Pa. (60). **D**
 Dunlap, William, 43 West Willis Ave., Detroit, Mich. (58)
- *Dunlevy, Prof. Robert Baldwin, 1104 West Johnson St., Madison, Wis. (50). 1909. **CEF**
- Dunn, Arthur D., M. D., 300 McCague Building, Omaha, Nebr. (60). **K**
 Dunn, E. A. A., M. D., Platteville, Wis. (60). **K**
 Dunn, Elizabeth Hopkins, M. D., Instructor in Anatomy, University of Chicago, Chicago, Ill. (58). **FK**
 Dunn, Gano, E. E., Vice-President and Chief Engineer, Crocker-Wheeler Co., 117 West 58th St., New York, N. Y. (50). **ABDE**
 Dunn, Ira J., M. D., 810 Peach St., Erie, Pa. (51). **KL**
- *Dunnington, Prof. Francis P., University Station, Charlottesville, Va. (26). 1880. **CE**
- DUNSCOMBE, GEO. ELLSWORTH, 392 Canal St., New York, N. Y. (57).
 Dunster, Carl B., E. M., Marquette, Mich. (60). **D**
 Dunyon, Newton A., E. M., 23 H St., Salt Lake City, Utah. (55). **DE**

- du Pont, Alfred I., Wilmington, Del. (60). **C**
 du Pont, Pierre S., Wilmington, Del. (57). **C**
 *Durand, Elias J., Assistant Professor of Botany, University of Missouri, Columbia, Mo. (41). 1899. **G**
 Durand, Mrs. Frederic F., Maplewood, N. J. (58).
 *Durand, William Frederick, Ph. D., Professor of Mechanical Engineering, Leland Stanford Junior University, Stanford University, Cal. (37). 1890. **B D**
 Durant, William B., Jr., 9 Lowell St., Cambridge, Mass. (61).
 Durfee, Walter Chaloner, 2d, 81 Sedgwick St., Boston, Mass. (56). **D**
 *Durfee, William Pitt, Ph. D., Dean, Hobart College, Geneva, N. Y. (46). 1899. **A**
 Durkee, Eugene W., 534 Washington St., New York, N. Y. (57). **D E**
 *Durkee, Frank Williams, Professor of Chemistry, Tufts College, Mass. (58). 1910. **C**
 Durrell, Harold Clarke, 17 Dana St., Cambridge, Mass. (57). **E**
 Durstine, W. E., 107 Burton Ave., N. E., Cleveland, Ohio. (60). **A**
 Durward, Arthur, Lordsburg, Cal. (60). **B**
 Duryea, Chester Burnell, 80 Madison Ave., New York, N. Y. (57). **B C**
 Duryee, Albert P., M. D., American National Bank Building, Everett, Wash. (60). **K**
 *Dutcher, William, 141 Broadway, N. Y. (54). 1906. **F**
 Dutton, Charles Frederic, Jr., 4816 Franklin Ave., Cleveland, Ohio. (47). **B C E**
 Dutton, Walton Forest, M. D., Walker's Mills, Pa. (60). **K**
 *Duval, Edmund P. R., Box 494, Norman, Okla. (50). 1906. **A**
 *Duvall, Trumbull Gillette, Ph. D., Professor of Psychology and Philosophy, Ohio Wesleyan University, Delaware, Ohio. (52). 1906. **H I L**
 *Duvel, Joseph W. T., Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C. (48). 1905. **G**
 Duvigneaud, George A., 819 Chamber of Commerce, Minneapolis, Minn. (55). **I**
 *Dwight, Jonathan, Jr., M. D., 134 West 71st St., New York, N. Y. (49). 1906. **F**
 Dwight, Mrs. Melatiah E., 31 Mt. Morris Park, West, New York, N. Y. (57).
 Dyar, Burt A., M. D., De Smet, S. D. (60). **K**
 *Dyar, Harrison G., Ph. D., U. S. National Museum, Washington, D. C. (43). 1898. **F**
 *Dyche, Lewis Lindsay, Professor of Systematic Zoology, University of Kansas, Lawrence, Kans. (51). 1906. **F**
 Dyer, Florence A., M. D., 30 Midland Ave., East Orange, N. J. (60). **K**
 Dyer, Isadore, M. D., 2222 Prytania St., New Orleans, La. (60). **K**
 Dysart, Paul Moore, 220 Coltart Square, Pittsburg, Pa. (58). **B D L**
 Dysterud, Emil, E. E., Monterey, N. L., Mexico. (50). **D**
 Eagleson, James B., M. D., 512 Burke Building, Seattle, Wash. (51). **K**

- Eames, Arthur Johnson, 39 Lincoln St., So. Framingham, Mass. (61).
- *Earhart, Robert F., Assistant Professor of Physics, Ohio State University, Columbus, Ohio. (53). 1907. **B**
- Earle, Baylis H., M. D., U. S. Quarantine Station, Charleston, S. C. (60). **K**
- *Earle, Franklin Sumner, Herradura, Cuba. (39). 1896. **G**
- Earll, Charles Isaac, M. E., 159 West 105th St., New York, N. Y. (52). **D**
- Earp, Edwin L., Ph. D., Drew Theological Seminary, Madison, N. J. (61).
- East, Edward Murray, Ph. D., Bussey Institution, Forest Hills, Boston, Mass. (57). **CG**
- *Eastman, Charles Rochester, Ph. D., Museum of Comparative Zoology Cambridge, Mass. (41). 1896. **EF**
- *Eastman, John R., Professor of Mathematics, U. S. N., Andover, N. H. (26). 1879. **A**
- Easton, Charles D., M. D., 36 Ayrault St., Newport, R. I. (60). **K**
- Easton, Christopher, 727 St. Peter St., St. Paul, Minn. (52). **IK**
- *Eastwood, Miss Alice, 3560 Tejon St., Denver, Colo. (50). 1901. **G**
- *Eaton, Elon Howard, Hobart College, Geneva, N. Y. (52). 1906. **FG**
- Eaton, Frederick Malcolm, 1014 Broadway, Oakland, Cal. (58). **C**
- *Eaton, George Francis, Ph. D., 80 Sachem St., New Haven, Conn. (54). 1906. **E**
- Eaton, Harry N., Instructor in Geology and Petrography, School of Mines, University of Pittsburg, Pittsburg, Pa. (56). **E**
- Eaton, Wm. S., 86 Trinity Place, New York, N. Y. (57).
- *Ebaugh, William Clarence, Ph. D., Director, Department of Chemistry, University of Utah, Salt Lake City, Utah. (54). 1906. **CL**
- Eccles, David Charles, 191 Dean St., Brooklyn, N. Y. (50). **C**
- *Eccles, Robert Gibson, M. D., 191 Dean St., Brooklyn, N. Y. (31). 1894. **CGK**
- Echols, Lient.-Col. Chas. P., U. S. A., West Point, N. Y. (58). **ABDL**
- Eckart, Charles F., Director, Sugar Experiment Station, Box 180, Honolulu, Hawaii. (53). **C**
- Eckersley, Joseph Oscar, C. E., 4269 White Plains Ave., New York, N. Y. (58). **ABD**
- Eckhart, Percy Bernard, First National Bank Building, Chicago, Ill. (58). **I**
- *Eddy, Henry T., Ph. D., Professor of Mathematics and Mechanics, University of Minnesota, Minneapolis, Minn. (24). 1875. **ABD**
- Eddy, Walter Hollis, 155 West 65th St., New York, N. Y. (60). **K**
- Edgar, Clinton G., 72 Jefferson Ave., Detroit, Mich. (46).
- Edgar, Thomas Oscar, Gainesville, Texas. (53). **K**
- Edgerton, Claude Wilbur, Agricultural Experiment Station, Louisiana State University, Baton Rouge, La. (56). **G**
- *Edmunds, Charles Keyser, Ph. D., care Jas. R. Edmunds, "The Cecil," Baltimore, Md. (58). 1910. **ABD**
- Edquist, Joshua A., Gustavus Adolphus College, St. Peter, Minn. (61). **EF G**

- Edsall, David L., M. D., 1432 Pine St., Philadelphia, Pa. (60). **K**
- Edson, Professor Howard Austin, Bureau of Plant Industry, U. S. Dept. of Agriculture, Washington, D. C. (60). **G**
- Edwards, Arthur M., M. D., F. R. M. S., 423 Fourth Ave., Newark, N. J. (52). **B C E F G**
- *Edwards, Charles Lincoln, Ph. D., Professor of Natural History, Trinity College, Hartford, Conn. (49). 1900. **F**
- *Edwards, Gen. Clarence R., U. S. A., Chief, Bureau of Insular Affairs, War Department, Washington, D. C. (25). 1906. **I**
- Edwards, Edwin H., 7317 Clinton Ave., N. W., Cleveland, Ohio. (58). **F G K**
- EDWARDS, J. WARNER, E. M., 1420 South 15th St., Denver, Colo. (58). **D**
- Egan, James A., M. D., Springfield, Ill. (60). **K**
- Egbert, J. Hobart, M. D., 278 Prospect St., Willimantic, Conn. (55). **F K**
- Egdahl, Anfin, State University of Iowa, Iowa City, Iowa. (58).
- Egerton, John B., Rock Hill College, Ellicott City, Md. (60). **F**
- *Eggleston, Willard Webster, Bureau of Plant Industry, U. S. Dept. of Agriculture, Washington, D. C. (57). 1909. **G**
- Ehman, Joseph W., 145 North 10th St., Philadelphia, Pa. (60). **C**
- Ehmke, W. C., M. D., Willow River, Minn. (60). **K**
- Ehrenfeld, Charles Hatch, Ph. D., Professor of Chemistry and Physics, Collegiate Institute, York, Pa. (54). **C**
- Ehrenfeld, Frederick, Ph. D., Assistant Professor of Geology, University of Pennsylvania, Philadelphia, Pa. (50). **E**
- *Ehrhorn, Edward Macfarlane, care Board of Agriculture and Forestry, Honolulu, Hawaii. (50). 1906. **F**
- *Eichelberger, William Snyder, Ph. D., Professor of Mathematics, U. S. Naval Observatory, Washington D. C. (41). 1896. **A**
- Eidlitz, Otto M., 489 Fifth Ave., New York, N. Y. (57).
- Eidlitz, Robert James, 995 Madison Ave., New York, N. Y. (57).
- *Eiesland, John, Ph. D., Department of Mathematics, West Virginia University, Morgantown, W. Va. (50). 1903. **A**
- *Eigenmann, Carl H., Ph. D., Professor of Zoology, Indiana University, Bloomington, Ind. (48). 1899. **F**
- Eikenberry, William Lewis, Instructor in Botany, High School, 4233 Russell Ave., St. Louis, Mo. (53). **G**
- Eilers, Anton, E. M., 751 St. Mark's Ave., Brooklyn, N. Y. (50). **D E**
- Eimer, August, 30 Irving Place, New York, N. Y. (50).
- Einstein, Alfred Charles, M. E., 709 Pine St., St. Louis, Mo. (60). **D**
- *Eisenhart, Luther Pfahler, Ph. D., Professor of Mathematics, Princeton University, Princeton, N. J. (60). 1910. **A**
- Eisenhauer, John H., 1004 North Park St., McKeesport, Pa. (60). **A**
- Elder, E. Waite, East Side High School, Denver, Colo. (50). **C**
- Eldred, Frank R., 1422 North New Jersey St., Indianapolis, Ind. (57). **C**

MEMBERS AND FELLOWS.

- Eliot, Charles W., LL. D., Cambridge, Mass. (61). **L**
- *Elkin, William L., Ph. D., Yale University Observatory, New Haven, Conn. (33). 1885. **A**
- Elkus, Abram I., 170 Broadway, New York, N. Y. (57).
- Ellard, Charles Henry, Great Neck, Long Island, N. Y. (58). **CFL**
- Ellerman, Ferdinand, Assistant Astrophysicist, Mt. Wilson, Cal. (58).
- AB**
- Ellinwood, C. N., M. D., 2739 Pacific Ave., San Francisco, Cal. (60). **K**
- Elliott, C. H., 525 West 120th St., New York, N. Y. (60). **A**
- Elliott, George Thomson, M. D., 36 East 35th St., New York, N. Y. (50).
- FK**
- Elliott, Charles Gleason, U. S. Department of Agriculture, Washington, D. C. (54). **D**
- *Elliott, Edward Charles, Ph. D., Associate Professor of Education, University of Wisconsin, Madison, Wis. (58). 1910. **IL**
- Elliott, E. L., 12 West 40th St., New York, N. Y. (58). **B**
- Ellis, A. Caswell, Ph. D., Professor of Education, University of Texas, Austin, Tex. (52). **IK**
- Ellis, Charles E., Iowa State College, Ames, Iowa. (60). **CDE**
- *Ellis, Frederick Warren, M. D., Monson, Mass. (47). 1906. **BK**
- Ellis, Grace F., 52 Briggs Court, Grand Rapids, Mich. (60). **A**
- Ellis, Henry Rives, 148 Pierpont St., Salt Lake City, Utah. (53). **CDE**
- Ellis, Max Mapes, Professor of Zoology, Indiana University, Bloomington, Ind. (58). **FK**
- Ellison, Daniel, 1627 East Madison St., Baltimore, Md. (61).
- Ellsworth, James William, 18 East 53d St., New York, N. Y. (54). **I**
- *Elrod, Morton John, Ph. D., Professor of Biology, University of Montana, Missoula, Mont. (50). 1901. **F**
- *Elsberg, Chas. A., M. D., Madison Ave. and 63d St., New York, N. Y. (57). 1908. **K**
- Elsom, Harry E., Masontown, Pa. (58). **C**
- Elton, Howard L., E. M., Oaxaca, Oaxaca, Mexico. (60). **D**
- Ely, Charles Russell, Ph. D., Professor of Natural Science, Gallaudet College, Washington, D. C. (52). **CE**
- Ely, Frederick G., 24 Broad St., New York, N. Y. (57).
- Ely, Sumner Boyer, 5122 Pembroke Place, Pittsburg, Pa. (50). **D**
- *Ely, Theo. N., Chief of Motive Power, Pennsylvania R. R., Broad St. Station, Philadelphia, Pa. (29). 1886. **D**
- Embody, George Charles, Ph. D., 315 College Ave., Ithaca, N. Y. (61).
- *Emerson, Benjamin Kendall, Professor of Geology, Box 203, Amherst, Mass. (19). 1877. **E**
- *EMERSON, PROF. C. F., Box 499, Hanover, N. H. (22). 1874. **AB**
- *Emerson, Chas. P., M. D., Clifton Springs, N. Y. (58). 1909. **K**
- Emerson, Herbert W., 400 West Lee St., Lawrence, Kans. (60). **C**
- *Emery, Albert Hamilton, 788 Main St., Stamford, Conn. (29). 1884.
- ABD**
- Emery, Stephen, 412 Welling St., Richmond Hill, N. Y. (60). **A**

MEMBERS AND FELLOWS.

- Emery, W. L., E. E., 830 Emeril Ave., Salt Lake City, Utah. (60). **C D**
- *Emery, William O., 2132 Flagler Place, N. W., Washington, D. C. (53).
1909. **C**
- Emmel, Victor E., Ph. D., 1806 Locust St., St. Louis, Mo. (58). **K**
- Emmert, Edward J., M. D., Lawrenceburg, Ind. (58). **K**
- Emmett, Arthur Donaldson, Associate in Animal Nutrition, University of
Illinois, Urbana, Ill. (57). **C K**
- Emmons, Arthur B., Newport, R. I. (50). **E**
- Emmons, Newton W., M. E., Trout Lake, British Columbia. (58). **D**
- *EMMONS, SAMUEL FRANKLIN, U. S. Geological Survey, Washington,
D. C. (26). 1879. **E**
- Emrich, William H., Marquette Club, Chicago, Ill. (58).
- Enders, Prof. Henry E., Cooper Union, New York, N. Y. (60). **C**
- Enders, Howard Edwin, Ph. D., Department of Biology, Purdue Univer-
sity, Lafayette, Ind. (50). **F**
- Enfield, Charles, M. D., Jefferson, Iowa. (58). **K**
- *Engberg, Carl Christian, Professor of Mathematics, University of Nebraska,
Lincoln, Nebr. (58). 1909. **A**
- Engelhardt, Francis Ernest, Ph. D., 7 Clinton Block, Syracuse, N. Y.
(58). **C**
- Engelhardt, George P., 373 Ocean Ave., Brooklyn, N. Y. (58). **F**
- Engle, Horace M., 414 Terry Building, Roanoke, Va. (52). **E**
- Engle, Harry Perry, M. D., Newton, Iowa. (58). **K**
- *Engler, Edmund Arthur, Ph. D., LL. D., President, Worcester Polytechnic
Institute, Worcester, Mass. (50). 1901. **A D L**
- Ennis, William Duane, M. E., Polytechnic Institute, Brooklyn, N. Y.
(58). **D**
- ENO, A. F., 32 Fifth Ave., New York, N. Y. (50).
- Eno, John Chester, 56 East 57th St., New York, N. Y. (49).
- Enock, Fred, 13 Tufnell Park Road, London, N., England. (58). **F**
- Ensign, William O., M. D., Rutland, Ill. (60). **K**
- Enzian, Charles, C. E., 375 South River St., Wilkes-Barre, Pa. (60). **D**
- Eppley, Marion, 80 Broadway, New York, N. Y. (60). **C**
- Epstein, Edward, 141 East 25th St., New York, N. Y. (57). **I**
- Erdmann, Charles A., M. D., Professor of Anatomy, University of Minne-
sota, Minneapolis, Minn. (58). **K**
- Erlandson, Oscar, C. E., 100 East 34th St., New York, N. Y. (60). **D**
- Erlanger, A., 65 Worth St., New York, N. Y. (57).
- Ernest, T. R., 605 East Springfield Ave., Champaign, Ill. (58). **C**
- Erwin, A. T., Associate Professor of Horticulture, Iowa State College,
Ames, Iowa. (54). **G**
- Esbjorn, Charles Linus Eugene, 9th Ave. and 34th St., Rock Island, Ill.
(58). **L**
- *Eshner, Augustus A., M. D., Professor of Clinical Medicine, Philadelphia
Polyclinic, Philadelphia, Pa. (54). 1909. **K**
- Espenschied, Charles, 3500 Washington Ave., St. Louis, Mo. (60).

MEMBERS AND FELLOWS.

- Essary, Samuel Henry, Assistant in Botany, University of Tennessee, Knoxville, Tenn. (54). **G I**
- Estabrook, Arthur F., 15 State St., Boston, Mass. (57).
- Estabrook, Arthur H., Johns Hopkins University, Baltimore, Md. (61).
F
- Esterly, Calvin Olin, Ph. D., Professor of Biology, Occidental College, Los Angeles, Cal. (53). **F**
- Estes, R. Logan, M. D., Meredosia, Ill. (60). **K**
- Esty, Thomas C., Amherst, Mass. (58). **A**
- Esty, William, Professor of Electrical Engineering, Lehigh University, South Bethlehem, Pa. (58). **B D**
- Esty, William C., 85 Elm St., Worcester, Mass. (60). **A**
- *Evans, Alexander W., M. D., Professor of Botany, Yale University, New Haven, Conn. (45). 1903. **G K**
- Evans, Britton D., M. D., Greystone Park, N. J. (51). **H K**
- Evans, George W., Charlestown High School, Charlestown, Mass. (58). **A**
- *Evans, Henry Brown, Ph. D., College Hall, University of Pennsylvania, Philadelphia, Pa. (48). 1906. **A D**
- Evans, Illybd Buller Pole, Department of Agriculture, P. O. 434, Pretoria, Transvaal, South Africa. (55). **G**
- Evans, James Rittenhouse, 3 High St., Pottstown, Pa. (58). **C**
- Evans, John D., care C. O. Railway, Trenton, Ontario, Canada. (58).
D F
- *Evans, Percy Norton, Ph. D., Professor of Chemistry, Purdue University, Lafayette, Ind. (58). 1910. **C**
- Evans, Rowland, 221 Federal Building, Indianapolis, Ind. (58). **I**
- Evans, Samuel G., 211 Main St., Evansville, Ind. (39). **G**
- *Evans, Walter Harrison, Ph. D., U. S. Department of Agriculture, Washington, D. C. (52). 1906. **G**
- *Evans, Wm. Lloyd, Assistant Professor of Chemistry, Ohio State University, Columbus, Ohio. (57). 1908. **C**
- Eveland, Arthur John, care General Development Co., 42 Broadway, New York, N. Y. (55). **E**
- *Evermann, Barton Warren, Ph. D., Bureau of Fisheries, Department of Commerce and Labor, Washington, D. C. (52). 1905. **F L**
- Evers, Edward, M. D., 1861 North Market St., St. Louis, Mo. (28).
F H K
- Ewell, Marshall Davis, M. D., LL. D., 59 Clark St., Chicago, Ill. (57). **B**
- Ewen, John M., 525, The Rookery, Chicago, Ill. (58). **D**
- Ewing, Early Cunningham, Bureau of Plant Industry, U. S. Dept. of Agriculture, Washington, D. C. (61). **G**
- Ewing, H. E., Assistant Professor of Zoology, Iowa State College, Ames, Iowa. (61). **F**
- Ewing, William Ferdinand, San Luis Obispo, Cal. (60). **A**
- *Eycleshymer, Albert Chauncey, Medical Department, St. Louis University, St. Louis, Mo. (53). 1906. **K**
- *Eyerman, John, "Oakhurst," Easton, Pa. (33). 1889. **C E**

- *Eyster, John A. English, M. D., Professor of Physiology, University of Wisconsin, Madison, Wis. (57). 1909. **K**
- Fagnani, Rev. Chas. Prospero, D. D., 700 Park Ave., New York, N. Y. (57).
- Fahnstock, Ernest Benjamin, E. E., 129 Patchen Ave., Brooklyn, N. Y. (60). **D**
- Fahrig, Ernst, 3642 Old York Road, Philadelphia, Pa. (51). **C**
- Faile, Edward Hall, M. E., 1 Madison Ave., New York, N. Y. (60). **D**
- Fairbank, Alexander W., M. D., Chazy, N. Y. (60). **K**
- *Fairbanks, Harold Wellman, Ph. D., P. O. Box 376, Berkeley, Cal. (58) 1910. **E L**
- *Fairbanks, Rev. Henry, Ph. D., St. Johnsbury, Vt. (14). 1874. **A B D**
- Fairbanks, James R., M. D., 33 Church St., Amsterdam, N. Y. (60). **K**
- Fairchild, Benjamin Thomas, 76 Laight St., New York, N. Y. (36). **C K**
- *Fairchild, David Grandison, U. S. Department of Agriculture, Washington, D. C. (47). 1898. **G**
- *Fairchild, Herman LeRoy, Professor of Geology, University of Rochester, Rochester, N. Y. (28). 1883. **E**
- Fairchild, John Fletcher, C. E., Mt. Vernon, N. Y. (60). **D**
- Falconer, William, Superintendent, Allegheny Cemetery, Pittsburg, Pa. (29).
- Falding, Frederic John, Consulting Chemical Engineer, 55 Broadway, New York, N. Y. (50). **C**
- Falk, Kaufman George, Hotel Westminster, Copley Square, Boston, Mass. (58). **B C**
- Fallon, G. W. R., 281 Fourth Ave., New York, N. Y. (57).
- Familener, L. W., Research Laboratory, Department of Health, New York, N. Y. (60). **K**
- *Fanning, John Thomas, C. E., Kasota Building, Minneapolis, Minn. (29). 1885. **B D**
- Farabee, William Curtis, Ph. D., Instructor in Anthropology, Harvard University, Cambridge, Mass. (54). **H**
- *Fargis, Rev. Geo. A., S. J., 801 West 181st St., New York, N. Y. (40). 1892. **A B C**
- *Faris, Robert Lee, U. S. Coast and Geodetic Survey, Washington, D. C. (58). 1910. **B**
- Farley, Godfrey Pearson, 24 Cottage Place, White Plains, N. Y. (51). **A B D E**
- Farlow, John W., M. D., 234 Clarendon St., Boston, Mass. (60). **K**
- *Farlow, William Gilson, Ph. D., Professor of Cryptogamic Botany, Harvard University, Cambridge, Mass. (20). 1875. **G**
- Farnham, Amos W., Head, Department of Geography, State Normal School, Oswego, N. Y. (54). **E**
- Farnham, Gordon, Box 145, Mt. Airy, Ohio. (60). **C**
- Farnsworth, Miss Alice, The Vendome, Boston, Mass. (60).
- Farnsworth, C. H.,.....(57).
- Farnsworth, Harry B., M. D., Missoula, Mont. (60). **K**

MEMBERS AND FELLOWS.

- *Farquhar, Henry, Census Bureau, Washington, D. C. (33). 1886.
A B G I
 Farr, Marcus Stults, Princeton University, Princeton, N. J. (49). **E**
 Farr, William W., M. D., 117 Allen's Lane, Mt. Airy, Philadelphia, Pa. (60). **K**
 *Farrand, Livingston, M. D., Professor of Anthropology, Columbia University, New York, N. Y. (50). 1902. **H K**
 Farrand, Wilson, Newark Academy, Newark, N. J. (61).
 Farrington, Ernest A., M. D., Haddonfield, N. J. (61). **K**
 Farrington, Frederic Ernest, University of Texas, Austin, Texas. (61).
 *Farrington, Oliver Cummings, Ph. D., Field Museum of Natural History, Chicago, Ill. (58). 1909. **E**
 Farwell, Robert Benneson, C. E., 62 Vinal Ave., Somerville, Mass. (47). **D**
 *Fassig, Oliver Lanard, Ph. D., San Juan, Porto Rico. (46). 1899. **B E L**
 Fatman, Morris, 14-16 White St., New York, N. Y. (57).
 *Faught, John Brookie, Professor of Mathematics, Northern State Normal School, Marquette, Mich. (50). 1907. **A**
 *Faull, Joseph Horace, Ph. D., Associate Professor of Botany, University of Toronto, Toronto, Canada. (54). 1909. **G**
 Faust, Thomas Bledsoe, Superintendent, Red River Furnace Co., Clarksville, Tenn. (58). **C D**
 *Favill, Henry Baird, M. D., Rm. 1116, 100 State St., Chicago, Ill. (58). 1909. **K**
 Fawcett, William P., M. D., Alderson, W. Va. (60). **K**
 *Fay, Henry, Ph. D., Professor of Chemistry, Massachusetts Institute of Technology, Boston, Mass. (57). 1908. **C**
 Fay, Lewis George, Custom House, New York, N. Y. (50). **G**
 Fegraeus, Torbern, Ph. D., Nobel Works, Baku, Caucasus, Russia. (60).
D
 Feingold, Marcus, M. D., 124 Baronne St., New Orleans, La. (60). **K**
 Fellows, Charles Sumner, 111 Chamber of Commerce, Minneapolis, Minn. (34). **F**
 Fels, Samuel S., S. E. cor. 39th and Walnut Sts., Philadelphia, Pa. (60).
I
 *Felt, Dr. Ephraim Porter, State Entomologist, Albany, N. Y. (44). 1899. **F**
 Felton, Herbert Clark, C. E., Kaighn's Point, Camden, N. J. (60). **D**
 Fenn, Robert Willson, C. E., 229 Mills Bldg., San Francisco, Cal. (60).
D
 *Fenneman, Nevin M., Ph. D., University of Cincinnati, Cincinnati, Ohio. (51). 1904. **E**
 Fenner, John Kelsey, Hopedale, Mass. (58). **A B C D E G**
 *Ferguson, Alexander McGowan, Sherman, Tex. (51). 1905. **G**
 Ferguson, Jeremiah Sweetser, 330 West 28th St., New York, N. Y. (58).
F K
 Ferguson, John A., State College, Pa., (60). **G**
 Ferguson, L. L., 155 Broadway, New York, N. Y. (52). **B**

MEMBERS AND FELLOWS.

- *Ferguson, Margaret Clay, Associate Professor of Botany, Wellesley College, Wellesley, Mass. (54). 1906. **G**
- Ferguson, Meade, Department of Health, 1110 Capitol St., Richmond, Va. (58). **CGIK**
- Ferguson, Robert Henry, M. D., 9 North Munn Ave., East Orange, N. J. (60). **K**
- Fergusson, Juliana A., Halesite, N. Y. (57).
- Fermier, Emile Jerome, Professor of Mechanical Engineering, Agricultural and Mechanical College of Texas, College Station, Tex. (58). **AD**
- Fernald, Charles H., Ph. D., Amherst, Mass. (58). **F**
- *Fernald, Henry T., Massachusetts Agricultural Experiment Station, Amherst, Mass. (58). 1910. **F**
- Fernald, Merritt Lyndon, 35 Walker St., Cambridge, Mass. (60).
- Fernberger, Samuel W., 1306 North Broad St., Philadelphia, Pa. (60).
- *Fernekcs, G., Ph. D., Houghton, Mich. (57). 1909. **C**
- *Fernow, Bernhard Eduard, University of Toronto, Toronto, Canada. (31). 1887. **GI**
- Ferrier, Walter F., E. M., Kennett, Cal. (60). **D**
- Ferris, Harry Burr, M. D., Hunt Professor of Anatomy, Yale University, New Haven, Conn. (60). **FK**
- *Ferry, Frederick Carlos, Ph. D., Williams College, Williamstown, Mass. (58). 1909. **A**
- Ferry, Mansfield, 31 Nassau St., New York, N. Y. (58).
- *Fessenden, Prof. Reginald A., care National Electric Signalling Co., 8th and Water Sts., Washington, D. C. (47). 1899. **AB**
- Fetterman, John Colvin, Castle Shannon, Pa. (51). **EF**
- *Fewkes, J. Walter, Ph. D., Forest Glen, Md. (48). 1900. **H**
- Fiala, Anthony, 148 83d St., Brooklyn, N. Y. (60). **E**
- *Field, Cyrus West, Professor of Pathology, University of Louisville, Louisville, Ky. (58). 1909. **K**
- Field, George W., 158 State House, Boston, Mass. (60). **F**
- *Field, Herbert Haviland, Ph. D., Director, Concilium Bibliographicum, Zürich-Neumünster Kollikerstr-9, Zürich, Switzerland. (54). 1903. **F**
- Field, Irving Angell, Professor of Biology, Western Maryland College, Westminster, Md. (57). **F**
- FIELD, WM. B. OSGOOD, 645 Fifth Ave., New York, N. Y. (57).
- Field, William Lusk Webster, Milton Academy, Milton, Mass. (47).
- EFL**
- FIELD, ADELE M., The San Marco, 1205 Spring St., Seattle, Wash. (57).
- FH**
- *Fields, John Charles, Associate Professor of Mathematics, University of Toronto, Toronto, Canada. (60). 1910. **A**
- Finch, Edward Ridley, 37 Fifth Ave., New York, N. Y. (57).
- Finch, John Wellington, (50). **E**
- Findlay, Merlin C., Professor of Biology, Park College, Parkville, Mo. (50). **F**
- Fine, Morris S., 46 Elliott St., New Haven, Conn. (60). **C**

MEMBERS AND FELLOWS.

- Finger, Clyde P., 817 30th St., Oakland, Cal. (58). **C**
- *Fink, Prof. Bruce, Miami University, Oxford, Ohio. (45). 1899. **G**
- Fink, Colin G., Ph. D., P. O. Box 719, Schenectady, N. Y. (60). **C**
- *Finkel, Benjamin F., 1227 Clay St., Springfield, Mo. (60). 1910. **A**
- Finley, Norval Howard, 7229 Hermitage St., Pittsburg, Pa. (52). **CDI**
- Finney, John M. T., M. D., 1300 Eutaw Place, Baltimore, Md. (60). **K**
- Fireman, Peter, Ph. D., Cosmos Club, Washington, D. C. (45). **D**
- *Firmstone, F., Easton, Pa. (33). 1887. **D**
- Firth, Wm. P., 3 May Place, Rosedale, Toronto, Canada. (58). **C**
- *Fisch, Carl, M. D., 3212 Pine St., St. Louis, Mo. (53). 1909. **HK**
- Fischel, Washington E., M. D., Humboldt Building, St. Louis, Mo. (58).
- IKL**
- Fischelis, Philipp, M. D., 828 North 5th St., Philadelphia, Pa. (60). **K**
- Fischer, Charles E. M., M. D., 1922 West Chicago Ave., Chicago, Ill. (53). **CFK**
- *Fischer, Louis Albert, Bureau of Standards, U. S. Department of Commerce and Labor, Washington, D. C. (47). 1906. **ABCE**
- *Fischer, Martin H., M. D., Oakland School of Medicine, Oakland, Cal. (58). 1909. **K**
- Fischer, Max, Director, Carl Zeiss, Jena, Germany. (58). **A**
- *Fischer, Richard, Ph. D., Professor of Analytical Chemistry, University of Wisconsin, Madison, Wis. (58). 1909. **C**
- Fischer, Walter, Caixa Postal, No. 321, Para, Brazil, S. A. (60). **G**
- Fish, Charles Henry, M. E., Garner Print Works and Bleachery, Wappingers Falls, N. Y. (51). **D**
- Fish, Frederick P., 84 State St., Boston, Mass. (60).
- *Fish, Pierre Augustine, D. V. M., Professor of Veterinary Comparative Physiology, Cornell University, Ithaca, N. Y. (49). 1901. **K**
- Fishberg, Maurice, 1337 Madison Ave., New York, N. Y. (57).
- Fisher, Carl D., M. D., 618 Mack Block, Denver, Colo. (55). **FK**
- *Fisher, Cassius Asa, Assistant Geologist, U. S. Geological Survey, Washington, D. C. (55). 1909. **F**
- Fisher, Chester G., 717 Forbes St., Pittsburg, Pa. (60). **C**
- *Fisher, Elizabeth Florette, Associate Professor of Geology, Wellesley College, Wellesley, Mass. (57). 1909. **E**
- *Fisher, George Egbert, Ph. D., Professor of Mathematics, University of Pennsylvania, Philadelphia, Pa. (51). 1904. **A**
- Fisher, George H., 84 Broadway, Brooklyn, N. Y. (57). **E**
- Fisher, George J., M. D., 124 East 28th St., New York, N. Y. (57). **IK**
- Fisher, Henry D., M. E., U. S. Glass Co., So. 18th St., Pittsburg, Pa. (60). **D**
- *Fisher, Irving, Ph. D., Department of Political Economy, Yale University, New Haven, Conn. (50). 1901. **AI**
- Fisher, James, Jr., Professor of Mathematics and Physics, Michigan College of Mines, Houghton, Mich. (58). **AB**
- Fisher, Robert Jones, 614 F St. N. W., Washington, D. C. (50). **D**

- Fisher, Robert Welles, M. D., N. E. corner 3d South and 5th East Sts., Salt Lake City, Utah. (51). **K**
- Fisher, Wilbur H., C. E., 158 Market St., Hannibal, Mo. (60). **D**
- Fisher, Willard James, Ph. D., Instructor in Physics, Cornell University, 811 E. State St., Ithaca, N. Y. (53). **B**
- Fisk, Arthur Lyman, M. D., 41 West 50th St., New York, N. Y. (57). **K**
- *Fisk, Harlan W., Department of Terrestrial Magnetism, Carnegie Institute, Washington, D. C. (60). 1910. **B**
- Fisk, Herbert F., D. D., LL. D., 1625 Judson Ave., Evanston, Ill. (50).
E H L
- Fiske, Andrew, 216 Commonwealth Ave., Boston, Mass. (60).
- Fiske, Mrs. Andrew, 216 Commonwealth Ave., Boston, Mass. (60).
- Fiske, Augustus Henry, 10 Buckingham Place, Cambridge, Mass. (58).
C
- *FISKE, PROF. THOMAS S., Columbia University, New York, N. Y. (50). 1901. **A**
- Fiske, W. F., care Gipsy Moth Parasite Laboratory, Melrose Highlands, Mass. (60). **F**
- Fiske, Wilbur A., 495 Cypress Ave., Pasadena, Cal. (51). **C E**
- Fitch, Henry A., M. D., 4 Rutger Park, Utica, N. Y. (60). **K**
- *Fitz, George W., M. D., Peconic, N. Y. (47). 1898. **H**
- Fitz Gerald, Christopher C., C. E., Zulueta 46, Havana, Cuba. (58). **D**
- *Fitz Gerald, Francis A. J., Fitzgerald and Bennie Laboratories, Niagara Falls, N. Y. (50). 1906. **C**
- Fitz-Gerald, William P., Burke and Porter Sts., Easton, Pa. (60). **C**
- Fitzpatrick, Edward A., 220 West 120th St., New York, N. Y. (60).
- *Fitzpatrick, Thomas J., Lamoni, Iowa. (52). 1905. **A G L**
- Fitz-Randolph, Raymond Bernard, Director State Laboratory of Hygiene, Trenton, N. J. (54). **C K**
- Flagg, Elisha, M. D., 190 Commonwealth Ave., Boston, Mass. (60). **K**
- Flagg, Stanley G., Jr., M. E., 1723 Spruce St., Philadelphia, Pa. (58). **D**
- Flanigan, John A., 71 Marshall St., Paterson, N. J. (61). **C**
- Fletcher, Miss Alice V., 20 Arlington St., Nashua, N. H. (58). **C**
- *Fletcher, John J., Professor of Mechanical Engineering, University of Minnesota, Minneapolis, Minn. (44). 1896. **D**
- Fleet, R. R., Wm. Jewell College, Liberty, Mo. (58).
- Fleming, A. S., M. D., Wheaton, Minn. (60). **K**
- *Fleming, John Adam, R. F. D. No. 2, Bethesda, Md. (48). 1909.
A B D
- Flemming, Dudley D., Gas Engineer, Lincoln Trust Building, 76 Montgomery St., Jersey City, N. J. (50). **C D**
- *Fletcher, Miss Alice C., Peabody Museum, Cambridge, Mass. (29). 1883. **H**
- *Fletcher, Horace, care Barrett Manufacturing Co., 17 Battery Place, New York, N. Y. (54). 1908. **H I K L**
- *Fletcher, Robert, M. D., Army Medical Museum and Library, Washington, D. C. (29). 1881. **H K**

MEMBERS AND FELLOWS.

- Flexner, Abraham, care Carnegie Foundation, 576 5th Ave., New York, N. Y. (60). **L**
- *Flexner, Simon, M. D., The Rockefeller Institute for Medical Research, New York, N. Y. (52). 1905. **K**
- Flickinger, Junius R., Principal, Normal School, President, Pennsylvania Educational Association, Lock Haven, Pa. (51). **I**
- Fling, Professor H. R., Oshkosh Normal School, Oshkosh, Wis. (61).
- *Flint, Albert Stowell, Washburn Observatory, Madison, Wis. (30). 1887. **A**
- *Flint, Austin, M. D., LL. D., 118 East 19th St., New York, N. Y. (50). 1901. **K**
- *Flint, Dr. James Milton, U. S. N., Stoneleigh Court, Washington, D. C. (28). 1882. **FH**
- *Flint, Joseph Marshall, M. D., Professor of Surgery, Yale University, New Haven, Conn. (58). **K**
- Floyd, C. Harold, 417 W. 117th St., New York, N. Y. (60).
- Floody, Rev. Robert J., 43 Endicott St., Worcester, Mass. (61). **L**
- *Focke, Theodore M., Professor of Mathematics, Case School of Applied Science, Cleveland, Ohio. (44). 1903. **AB**
- *Foley, Arthur Lee, Ph. D., Professor of Physics, Indiana University, Bloomington, Ind. (46). 1900. **B**
- Folkmar, Daniel, D. S. S., 1310 Park Road N. W., Washington, D. C. (46). **HI**
- *Folks, Homer, 428 Hawthorne Ave., Yonkers, N. Y. (58). 1909. **IL**
- Follis, Richard H., M. D., 3 East Read St., Baltimore, Md. (60). **K**
- Folsom, Mrs. Charles F., 114 Marlborough St., Boston, Mass. (60).
- *Folsom, Justus Watson, Assistant Professor of Entomology, University of Illinois, Urbana, Ill. (53). 1906. **F**
- *Foot, Katharine, 80 Madison Ave., New York, N. Y. (58). 1910. **F**
- *Foote, Allen Ripley, 17 Board of Trade Building, Columbus, Ohio. (52). 1905. **I**
- Foote, Arthur De Wint, C. E., Grass Valley, Cal. (60). **D**
- Foote, James S., M. D., Professor of Histology, Creighton Medical College, Omaha, Nebr. (50). **K**
- *Foote, Warren Mathews, 418 South Wycombe Ave., Lansdowne, Pa. (50). 1906. **CEIL**
- Foran, George Jesse, M. E., 471 Central Park, West, New York, N. Y. (60). **D**
- FORBES, ALEXANDER, Milton, Mass. (60).
- Forbes, Amelia, Waltham Training School, Waltham, Mass. (60).
- *Forbes, Geo. Shannon, Ph. D., 51 Thornton St., Roxbury, Mass. (58). 1910. **C**
- *Forbes, Robert Humphrey, Professor of Chemistry, University of Arizona, Tucson, Ariz. (50). 1906. **C**
- *Forbes, Stephen Alfred, Ph. D., Professor of Entomology, University of Illinois, Urbana, Ill. (55). 1907. **F**

- Forbes, William T. M., Ph. D., 23 Trowbridge Road, Worcester, Mass. (61).
- Ford, Arthur Hillyer, Professor of Electrical Engineering, State University of Iowa, Iowa City, Iowa. (52). **D L**
- Ford, Bruce, M. E., 25 Summit St., Chestnut Hill, Philadelphia, Pa. (60). **D**
- Ford, John Howard, District Engineer, 4th District, San Fernando, Pampanga, P. I. (60). **D**
- Ford, Starr, M. D., 19 West 7th St., Cincinnati, Ohio. (60). **K**
- Forrest, Charles N., New York Testing Laboratory, Maurer, N. J. (58). **C**
- Forrester, Robert, P. O. Box 1254, Salt Lake City, Utah. (57). **B C D E F G**
- Forsyth, Miss Ruth A., Gilroy, Cal. (61). **F**
- FORTMANN, HENRY FREDERICK, President, Alaska Packers Association, 1007 Gough St., San Francisco, Cal. (54). **D**
- *Forwood, William Henry, M. D., Brig.-Gen. U. S. A., 1425 Euclid St. N. W., Washington, D. C. (52). 1909. **E**
- Foshay, P. Maxwell, M. D., 168 Park St., Montclair, N. J. (61). **K**
- Foster, Macomb G., P. O. Box 1120, New York, N. Y. (49).
- Foster, Shirley W., U. S. Department of Agriculture, Washington, D. C. (58). **F**
- Foster, William, Newburgh, N. Y. (50). **I**
- Foster, William, Ph. D., Professor of Chemistry, Princeton University, Princeton, N. J. (60). **C**
- Foster, William Trufant, Professor of English, Bowdoin College, Brunswick, Me. (60). **L**
- *Fouk, Charles William, Professor of Analytical Chemistry, Ohio State University, Columbus, Ohio. (51). 1906. **C**
- *Fountain, Claude Russell, Ph. D., Professor of Physics, Kenyon College, Gambier, Ohio. (58). 1910. **A B**
- Fouts, Jesse J., M. D., Gonzales, Texas. (60). **K**
- *Fowle, Frederick Eugene, Astrophysical Observatory, Smithsonian Institution, Washington, D. C. (58). 1909. **A B**
- Fowler, John V., M. D., 312 Grand Ave., Chicago, Ill. (58). **K**
- Fox, Charles James, M. D., 706-708 Connecticut Mutual Building, 36 Pearl St., Hartford, Conn. (51). **K L**
- *Fox, Henry, Ph. D., Professor of Biology, Ursinus College, Collegeville, Pa. (52). 1906. **F**
- *Fox, Philip, Dearborn Observatory, Evanston, Ill. (53). 1909. **A B**
- *Fox, William, Associate Professor of Physics, College of the City of New York, New York, N. Y. (50). 1906. **B D**
- Fox, William A., Glencoe, Ill. (58). **D**
- Foxworthy, Fred William, Ph. D., Bureau of Science, Manila, P. I. (52). **G**
- *Fracker, George Cutler, Professor of Psychology and Education, Northern State Normal School, Marquette, Mich. (52). 1905. **H L**
- Fraenkel, Joseph, M. D., 46 East 75th St., New York, N. Y. (50). **H K**
- Francis, Charles A., M. E., 21 Shio-Cho, Yotsuya-Ku, Tokyo, Japan. (60). **D**

MEMBERS AND FELLOWS.

- *Francis, Prof. Charles Kenworthy, Columbia, Mo. 50). 1910. **C**
 Frank, Henry, 378 Vanderbilt Ave., Brooklyn, N. Y. (57).
 Frankenthal, Lester E., M. D., 4825 Woodlawn Ave., Chicago, Ill. (60). **K**
- *Frankforter, George B., Ph. D., Dean, College of Chemistry, University of Minnesota, Minneapolis, Minn. (43). 1901. **C**
- *Frankland, Frederick William, "Okataina," Foxton, Manawatu, New Zealand. (50). 1906. **A B E H I K**
 Franklin, Arthur I., 181 West 135th St., New York, N. Y. (58). **C**
- *Franklin, Mrs. Christini Ladd, LL. D., 527 W. 110th St., New York, N. Y. (47). 1899. **H**
- *Franklin, Edward Curtis, Ph. D., Stanford University, Cal. (47). 1900. **B C**
 Franklin, Milton W., E. E., General Electric Co., Schenectady, N. Y. (60). **D**
- *Franklin, William S., Professor of Physics, Lehigh University, South Bethlehem, Pa. (36). 1892. **B**
- *Franz, Shepherd Ivory, Ph. D., Professor of Physiology, George Washington University, Washington, D. C. (55). 1909. **H K**
- *Fraps, George Stronach, Ph. D., Associate Chemist, Agricultural Experiment Station, College Station, Tex. (54). 1906. **C**
- Frary, Hobart D., Dept. Terrestrial Magnetism, Carnegie Institution of Washington, Washington, D. C. (61). **A B**
- Fraser, Hans A., Exchange Court, 52 Broadway, New York, N. Y. (56). **C**
 Fraser, George C., 20 Exchange Place, New York, N. Y. (57). **E**
 Fraser, Samuel, Box 655, Geneseo, N. Y. (58). **G**
 Fraser, Frank Dean, 1401 Fillmore St., Topeka, Kan. (58). **A G**
- *FRAZER, JOHN, Ph. D., 928 Spruce St., Philadelphia, Pa. (58). 1909. **C**
- *Frazier, Charles H., 133 South 18th St., Philadelphia, Pa. (54).
 *Frear, William, Ph. D., 122 West Beaver Ave., State College, Pa. (33). 1886. **C**
- *Frederick, Charles Warnock, U. S. Naval Academy, Annapolis, Md. (50). 1906. **A B C**
 Free, Edward Elway, Bureau of Soils, U. S. Department of Agriculture, Washington, D. C. (58). **B C E**
- *Freedman, William Horatio, Professor of Electrical Engineering, University of Vermont, Burlington, Vt. (50). 1901. **B D**
 Freeman, Charles, Ph. D., Director, Clark Chemical Laboratory, Westminster College, New Wilmington, Pa. (50). **C**
- *Freeman, Edward Monroe, Ph. D., College of Agriculture, St. Anthony Park, Minn. (58). 1909. **G**
 Freeman, Frank Nugent, Ph. D., School of Education, University of Chicago, Chicago, Ill. (58). **H L**
 Freeman, Gay Nichols, E. M., Thermopolis, Wyoming. (60). **D**
 Freeman, Miss Harriet E., 37 Union Park, Boston, Mass. (57). **E G**
 Freeman, John Ripley, C. E., 235 Arlington Ave., Providence, R. I. (60). **D**

- *Freer, Prof. Paul C., Bureau of Science, Manila, P. I. (39). 1891. **C**
FRENCH, MISS CAROLINE L. W., 42 Commonwealth Ave., Boston, Mass. (60).
- *French, George Hazen, 912 South Normal Ave., Carbondale, Ill. (54). 1906. **F G**
 French, John Shaw, Ph. D., 151 Morris Ave., Providence, R. I. (58). **A B L**
 French, Owen B., U. S. Coast and Geodetic Survey, Washington, D. C. (52). **A D E**
- *French, Thomas, Jr., Ph. D., 40 Brantford Place, Buffalo, N. Y. (30). 1883. **B H**
 Frerichs, Frederick W., Ph. D., 3828 Westminster Place, St. Louis, Mo (58). **C**
 Frick, Prof. John H., Department of Mathematics, Central Wesleyan College, Warrenton, Mo. (27). **A B E**
- *Friedenwald, Harry, M. D., Associate Professor of Ophthalmology and Otology, College of Physicians and Surgeons, Baltimore, Md. (51). 1909. **K**
 Friend, Samuel Henry, M. D., 406 Irving Place, Milwaukee, Wis. (51). **K**
 Frierson, L. S., Frierson, La. (54). **F**
- *Fries, Harold H., M. D., 92 Reade St., New York, N. Y. (40). 1898. **C K**
 Fries, J. August, State College, Pa. (57). **C**
 Fries, John W., Winston-Salem, N. C. (56). **C**
 Frisbie, Jesse F., M. D., Box 455, Newton, Mass. (29). **E H K**
- *Frisby, Edgar, Professor of Mathematics, U. S. N., 1607 31st St. N. W., Washington, D. C. (28). 1880. **A**
 Frissell, A. S., President, Fifth Avenue Bank of New York, 530 Fifth Ave., New York, N. Y. (52). **I**
- *Frissell, Lewis Fox, M. D., 113 East 56th St., New York, N. Y. (57). 1908. **K**
 Fritch, Louis Charlton, C. E., Chief Engineer, C. G. W. R. R., 468 Grand Central Station, Chicago, Ill. (60). **D**
 Fritz, John, E. M., 155 Market St., Bethlehem, Pa. (60). **D**
 Froehling, Henry, E. M., 911 Floyd Ave., Richmond, Va. (60). **C D**
 Frost, Arthur Barzilla, 310 Prospect St., Warren, Ohio. (53). **C**
- *Frost, Edwin Brant, Director, Yerkes Observatory, Williams Bay, Wis. (38). 1890. **A B**
 Frost, Harold L., Arlington, Mass. (60). **F**
 Frost, Miss Lilla Ninette, Centre Sandwich, N. H. (57). **G**
- *Frost, William Dodge, Associate Professor of Bacteriology, University of Wisconsin, Madison, Wis. (50). 1906. **K**
 Frothingham, Channing, Jr., 51 Hereford St., Boston, Mass. (60). **FROTHINGHAM, MRS. FREDERICK**, care Alex. Wright, Esq., Fullerton, Cal. (31). **A F I**
 Frugone, Frank L., 178 Park Row, New York, N. Y. (57).

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- Fry, Charles, 21 Commonwealth Ave., Boston, Mass. (53). **I**
 Fry, Harry Shipley, 2260 Adams Ave., Norwood, Cincinnati, Ohio. (60). **C**
 Frye, Maud J., M. D., 224 Allen St., Buffalo, N. Y. (60). **K**
 *Frye, Theodore Christian, Ph. D., Professor of Botany, University of Washington, Seattle, Wash. (53). 1909. **G**
 Fryer, Roy M., P. O. Box 72, Sacramento, Cal. (61).
 Fryette, Harrison H., M. D., 506 Trude Building, Chicago, Ill. (58). **K**
 Fuchs, Ernesto, M. E., Apartado No. 334, Guadalajara, Mexico. (58). **D**
 Fuchs, Fernando C., E. M., Casilla 981, Lima, Peru, S. A. (60). **D**
 Fulcher, Gordon Scott, Amherst, Mass. (58). **B**
 Fulda, Clemens, M. D., 107 Kent St., Brooklyn, N. Y. (57). **K**
 *Fuller, Caleb Allen, Ph. D., University of Wisconsin, Madison, Wis. (54). 1906. **F**
 Fuller, Charles Gordon, M. D., 500 Reliance Building, Chicago, Ill. (35).
F K
 FULLER, FRANK, 61 Fifth Ave., New York, N. Y. (57).
 Fuller, Prof. Frederick D., Chief Deputy State Chemist, Purdue University Agric. Experiment Station, La Fayette, Ind. (60). **C**
 *Fuller, George W., 170 Broadway, New York, N. Y. (50). 1903. **D**
 Fuller, Harry V., Platten Strasse, No. 46, Zurich, Switzerland. (60). **C**
 Fuller, Prof. Merton Leonard, Local Office, U. S. Weather Bureau, Peoria, Ill. (58). **A E I L**
 *FULLER, MYRON L., 104 Belmont Ave., Brockton, Mass. (50). 1905. **E**
 Fuller, Robert Gorham, 5 Perrin Road, Brookline, Mass. (58). **H**
 Fuller, S. Richard, 405 Beacon St., Boston, Mass. (60).
 Fuller, William, 22 Maple St., Auburndale, Mass. (60). **A**
 Fullerton, Rev. Edward Grier, D. D., Ph. D., 229 So. Franklin Ave., Wilkes-Barre, Pa. (61).
 Fullmer, Edward Lawrence, Baldwin University, Berea, Ohio. (50). **F**
 Falloway, David T., Hawaii Agricultural Experiment Station, Honolulu, Hawaii. (60). **F**
 Fulmer, Elton, Pullman, Washington. (58). **C E**
 Fulton, Harry Rascoe, Department of Botany, Pennsylvania State College, State College, Pa. (58). **G**
 *Fulton, Robert B., LL. D., Miller School, Va. (21). 1887. **A B**
 Furlow, Floyd Charles, V. P., Plunger Elevator Co., 17 Battery Place, New York, N. Y. (50). **D**
 Furman, Davis, M. D., 229 River St., Greenville, S. C. (60). **K**
 *Furness, Caroline E., Ph. D., Vassar College, Poughkeepsie, N. Y. (47). 1899. **A**
 Furney, Elliott E., M. D., 3417 Morgan St., St. Louis, Mo. (60). **K**
 Furst, Clyde, Secretary, Teachers College, Columbia University, New York, N. Y. (52).
 Fatcher, Thomas B., 3 West Franklin St., Baltimore, Md. (60).
 *Gable, George Daniel, Ph. D., Professor of Mathematics, University of Wooster, Wooster, Ohio. (40). 1906. **A B**

Gabriel, George Andrew, 432 Westminster Road, Brooklyn, N. Y. (58).

A B C D E

Gaehr, Prof. Paul F., Robert College, Constantinople, Turkey. (58) **A B**

Gaff, Thomas T., 1520 20th St. N. W., Washington, D. C. (52).

Gage, Homer, M. D., 72 Pearl St., Worcester, Mass. (61). **K**

*Gage, Simon Henry, Professor Emeritus of Histology and Embryology,
Cornell University, Ithaca, N. Y. (28). 1881. **F**

Gage, Stephen De M., Experiment Station, Lawrence, Mass. (60).

*Gage, Mrs. Susanna Phelps, 4 South Ave., Ithaca, N. Y. (48). 1900. **F**

Gage-Day, Mary, M. D., 207 Wall St., Kingston, N. Y. (51). **K**

*Gager, C. Stuart, Ph. D., University of Missouri, Columbia, Mo. (50).
1909. **G**

Gahagan, William L., M. D., care U. S. Casualty Co., 141 Broadway,
New York, N. Y. (51). **K**

Gahn, James L., M. D., Jackson, Ohio. (60). **K**

Gaines, William D., M. D., La Fayette, Ala. (60). **K**

*Gallraith, Prof. John, School of Practical Science, University of Toronto,
Toronto, Canada. (38). 1889. **D**

*Gale, Arthur Sullivan, Ph. D., Professor of Mathematics, University of
Rochester, Rochester, N. Y. (54). 1906. **A**

*Gale, Henry Gordon, Ph. D., Assistant Professor of Physics, University
of Chicago, Chicago, Ill. (58). 1910. **B**

Gallagher, John H., E. M., 723½ Kearney St., Portland, Ore. (60). **D**

*Galloway, B. T., U. S. Department of Agriculture, Washington, D. C.
(37). 1890. **G**

Galloway, David H., M. D., Roswell, New Mexico. (60). **K**

Galloway, John D., C. E., 1500 Euclid Ave., Berkeley, Cal. (60). **D**

*Galloway, Thomas Walton, Ph. D., Professor of Biology, James Millikin
University, Decatur, Ill. (45). 1901. **F G H L**

Gamba, Fortunato Periera, M. E., Pasto, Colombia, via Panama y
Tumaco, S. A. (60). **D**

Gamble, Charles D., M. D., Spencerville, Ohio. (60). **K**

*Gane, Henry Stewart, Santa Barbara, Cal. (58). 1910. **E**

Ganong, Walter Kierstead, Professor of Electrical Engineering, Univer-
sity of Maine, Orono, Me. (57). **D**

*Ganong, Wm. Francis, Ph. D., Professor of Botany, Smith College, North-
ampton, Mass. (49). 1900. **G**

*Ganz, Albert Frederick, M. E., Professor of Electrical Engineering,
Stevens Institute of Technology, Hoboken, N. J. (52). 1906. **B D**

Garber, John Frederick, Yeatman High School, St. Louis, Mo. (56). **G**

Garcin, Ramon D., M. D., 2618 East Broad St., Richmond, Va. (51). **C K**

Gardiner, Rev. Frederic, Yeates School, Lancaster, Pa. (47). **F L**

Gardner, Rev. Corliss B., Spencerport, N. Y. (29). **A I**

Gardner, John R., 24 East 99th St., New York, N. Y. (58).

Gardner, Julia A., Maryland Geological Survey, Baltimore, Md. (60). **E**

*Garman, Prof. Samuel, Museum of Comparative Zoology, Cambridge
Mass. (20). 1874 **E F**

MEMBERS AND FELLOWS.

- *Garner, James Bert, Ph. D., Professor of Chemistry, Wabash College, Crawfordsville, Ind. (53). 1909. **C**
- Garrett, Albert O., Secretary, Utah Academy of Sciences, 615 South 9th East St., Salt Lake City, Utah. (50). **G**
- Garrett, J. B., State Crop Pest Commission, Baton Rouge, La. (58). **F**
- GARRETT, MRS. T. HARRISON, Evergreen-on-Avenue, Baltimore, Md. (60).
- Garrison, Harriet E., M. D., 105 East Second St., Dixon, Ill. (51). **I**
- Garrison, Wilbert A., Assistant Professor of Mathematics, Union College, Schenectady, N. Y. (58). **AL**
- Garvin, John B., Instructor in Chemistry, East Side High School, Denver, Colo. (50). **C**
- Gary, Lester B., Instructor in Biology, Central High School, Buffalo, N. Y. (53). **F**
- Gasche, Ferdinand G., 7212 Merrill Ave., Chicago, Ill. (58). **AD**
- Gates, Burton N., Bureau of Entomology, U. S. Department of Agriculture, Washington, D. C. (58). **FGHK**
- *Gates, Fanny Cook, Professor of Physics, Woman's College, Baltimore, Md. (50). 1907. **ABL**
- *Gates, Reginald Ruggles, Ph. D., Missouri Botanical Garden, St. Louis, Mo. (58). 1909. **FG**
- Gates, William Hazen, Professor of Zoology and Entomology, Louisiana State University, P. O. Box 522, Baton Rouge, La. (60). **F**
- Gaub, John, 134 Easton Ave., New Brunswick, N. J. (58). **AC**
- Gault, Franklin Benjamin, Ph. D., President, University of South Dakota, Vermillion, S. D. (43). **L**
- Gaumnitz, Prof. Daniel A., St. Anthony Park Experiment Station, St. Paul, Minn. (55). **F**
- Gause, Fred Taylor, care Standard Oil Co., 26 Broadway, New York, N. Y. (40).
- Gauss, Robert, *Denver Republican*, Denver, Colo. (50). **I**
- Gavett, George Irving, 5252 16th Ave., N. E., Seattle, Wash. (58). **A**
- Gay, Frederick Parker, M. D., Assistant in Pathology, Harvard Medical School, Boston, Mass. (60). **K**
- Gay, George W., M. D., Chestnut Hill, Mass. (60). **K**
- Gay, Samuel G., M. D., Selma, Ala. (60). **K**
- Geballe, Pauline I., Teacher in Physics and Chemistry, 1949 Pine St., San Francisco, Cal. (57). **BC**
- Geer, William C., Ph. D., 23 Hawthorne Ave., Akron, Ohio. (58). **BC**
- Geisler, Joseph F., New York Mercantile Exchange Buildings, corner Hudson and Harrison Sts., New York, N. Y. (50).
- Geisse, Wm. F. G., R. F. D. No. 2, Great Barrington, Mass. (57). **HI**
- Geissler, Ludwig Reinhold, Ph. D., Instructor in Psychology, Cornell University, Ithaca, N. Y. (56). **H**
- *GENTH, FREDERICK A., 222 Walnut St., Philadelphia, Pa. (32). 1900. **CE**
- *Genthe, Karl Wilhelm, Ph. D., Professor of Natural History, Trinity College, Hartford, Conn. (50). 1901. **FL**

- Gentsch, Charles, M. D., 2826 Franklin Ave., Cleveland, Ohio. (60). **K**
- *George, Russell D., Professor of Geology, University of Colorado, Boulder, Colo. (53). 1909. **E**
- Georgeson, Charles C., Professor of Agriculture, Sitka, Alaska. (60). **G**
- Gephart, Frank, Northwestern University Medical School, Chicago, Ill. (57). **C**
- Gerhard, William J., Field Museum of Natural History, Chicago, Ill. (60). **F**
- Gerkenmeyer, H. H., 210 First Ave., Joliet, Ill. (58). **C**
- *Germann, George B., Ph. D., Principal, Public School No. 130, Ocean Parkway and Fort Hamilton Ave., Brooklyn, N. Y. (49). 1901. **F H L**
- Gerould, John Hiram, Ph. D., Assistant Professor of Zoology, Dartmouth College, Hanover, N. H. (58). **F**
- Gerrish, Frederic Henry, M. D., 675 Congress St., Portland, Me. (60). **K**
- *Getman, Frederick Hutton, Ph. D., Bryn Mawr College, Bryn Mawr, Pa. (45). 1909. **B**
- Geyer, William E., Stevens Institute of Technology, Hoboken, N. J. (60). **C**
- Gibbons, Henry, Jr., M. D., 350 Post St., San Francisco, Cal. (60). **K**
- Gibbs, George, C. E., 10 Bridge St., New York, N. Y. (57). **B C D E**
- Gibson, Arthur, M. E., P. O. Box 200, Nome, Alaska. (60). **D**
- Gibson, Robert Banks, Ph. D., Assistant Professor of Physiological Chemistry, University of Missouri, Columbia, Mo. (58). **K**
- Giddings, Nahum James, West Virginia Experiment Station, Morgantown, W. Va. (58). **C G**
- Gideon, Abraham, C. E., City Hall, Manila, P. I. (60). **D**
- Gierisch, Otto F., E. E., 515 W. 110th St., New York, N. Y. (60). **D**
- *Gies, William J., M. D., Professor of Biological Chemistry, College of Physicians and Surgeons, New York, N. Y. (49). 1901. **C K**
- Giffard, Walter M., P. O. Box 308, Honolulu, Hawaii. (58). **F**
- Gifford, Harold, M. D., 567 Brandeis Block, Omaha, Nebr. (51). **K**
- Gilbert, Arthur Witter, Ph. D., Assistant Professor of Plant Breeding, Cornell University, Ithaca, N. Y. (58). **G**
- Gilbert, Edward Hooker, Ware, Mass. (60).
- *GILBERT, GROVE KARL, LL. D., U. S. Geological Survey, Washington, D. C. (18). 1874. **E**
- Gilbert, J. Allen, M. D., Ph. D., Dekum Building, Portland, Oregon. (61). **K**
- Gilbert, John Philo, 502 South Goodwin Ave., Urbana, Ill. (60). **F**
- Gilbert, James Z., 3300 Griffin Ave., Los Angeles, Cal. (61).
- *Gilbert, Norman Everett, Professor of Physics, Dartmouth College, Hanover, N. H. (51). 1906. **A B**
- Gilbert, Oscar M., M. D., Boulder, Colo. (60). **K**
- Gilbert, Ralph D., Ph. D., 43 Chatham St., Boston, Mass. (58). **C**

MEMBERS AND FELLOWS.

- Gilbert, Walter M., Assistant Secretary, Carnegie Institution of Washington, Washington, D. C. (54). **L**
- Gilbertson, Albert N., University of Colo., Boulder, Colo. (61). **H**
- Gilchrist, T. Caspar, Clinical Professor of Dermatology, Johns Hopkins University, Baltimore, Md. (52). **K**
- *Gildersleeve, Nathaniel, M. D., Associate in Bacteriology, Department of Hygiene, University of Pennsylvania, Philadelphia, Pa. (52). 1906. **C F G K**
- Giles, Albert William, 97 Bartlett St., Rochester, N. Y. (60). **E**
- *Gill, Adam Capen, Ph. D., Assistant Professor of Mineralogy and Petrography, Cornell University, Ithaca, N. Y. (38). 1894. **B E**
- *Gill, Augustus Herman, Ph. D., Massachusetts Institute of Technology, Boston, Mass. (44). 1896. **C**
- Gill, Miss Laura Drake, 264 Boylston St., Boston, Mass. (58).
- *Gill, Theodore Nicholas, M. D., Professor of Zoology, George Washington University, Washington, D. C. (17). 1874. **F K**
- *Gillespie, William, Ph. D., 10 Nassau St., Princeton, N. J. (58). 1909. **A**
- Gillet, Harry Orrin, University of Chicago, Chicago, Ill. (60). **A**
- *Gillett, Arthur Lincoln, Professor of Apologetics, Hartford Theological Seminary, Hartford, Conn. (54). 1906.
- Gillett, Henry W., 140 West 57th St., New York, N. Y. (57). **I**
- Gillette, Arthur Alfred, M. D., 511 North Washington St., Rome, N. Y. (60). **K**
- *Gillette, Clarence P., Professor of Zoology, Colorado Agricultural College, Fort Collins, Colo. (50). 1901. **F**
- Gilley, Frank Milton, 21 John St., Chelsea, Mass. (58). **B C D K L**
- Gillmore, Gertrude A., 596 Woodward Ave., Detroit, Mich. (60).
- Gilmore, John Washington, President, The College of Hawaii, Honolulu, Hawaii. (58).
- Girault, A. Arsene, Assistant in Entomology, University of Illinois, Urbana, Ill. (57). **F**
- *Girty, George H., Ph. D., U. S. Geological Survey, Washington, D. C. (48). 1903. **E**
- Girvin, John H., M. D., 3924 Walnut St., Philadelphia, Pa. (60). **K**
- Given, Arthur, Bureau of Chemistry, U. S. Department of Agriculture, Washington, D. C. (57). **C D**
- Given, Guy C., State College, Pa. (60). **C**
- Gladding, Thomas S., 181 Front St., New York, N. Y. (60). **C**
- Glaser, Charles, Analytical and Consulting Chemist, 22 South Gay St., Baltimore, Md. (49). **C**
- *Glaser, Otto Charles, Ph. D., Assistant Professor of Zoology, University of Michigan, Ann Arbor, Mich. (58). 1910. **F G**
- Glasgow, Frank A., M. D., Professor of Clinical Gynecology, Washington University, St. Louis, Mo. (53). **K**
- Glasgow, Hugh, Natural History Building, Urbana, Ill. (61).
- Glasgow, Robert D., Natural History Building, Urbana, Ill. (61).
- Glassford, John, 38 Jefferson Ave., Jersey City, N. J. (60). **C**

- *Gleason, Henry Allan, Ph. D., Associate in Botany, University of Illinois, 511 East Johns St., Champaign, Ill. (50). 1909. **G**
- Gleason, W. Stanton, M. D., 143 Grand St., Newburgh, N. Y. (50). **F K**
- Glenk, Robert, 730 Carondelet St., New Orleans, La. (58). **C**
- *Glenn, Leonidas Chalmers, Ph. D., Professor of Geology, Vanderbilt University, Nashville, Tenn. (50). 1903. **E**
- *Glenn, Oliver Edmunds, Ph. D., Assistant Professor of Mathematics, University of Pennsylvania, Philadelphia, Pa. (54). 1907. **A**
- GLENNY, WILLIAM H., 253 Main St., Buffalo, N. Y. (25).
- Glessner, J. J., 1800 Prairie Ave., Chicago, Ill. (58).
- Glover, Henry, 6445 Emlen St., Germantown, Philadelphia, Pa. (60). **C**
- Gobeille, Joseph Leon, M. E.,.....(60). **D**
- Goddard, Henry Herbert, Ph. D., Vineland, N. J. (57). **L**
- Goddard, Martha Freeman, Morris High School Annex, 144th St. and Mott Ave., New York, N. Y. (60). **F**
- Godfrey, Almon Tanner, M. D., Hope College, Holland, Mich. (60). **CK**
- Godfrey, Chas. C., M. D., 753 Lafayette St., Bridgeport, Conn. (51). **G K**
- Godfrey, Henry T., M. D., Galena, Ill. (58). **K**
- Goding, Frederic W., Ph. D., American Consulate, Montevideo, Uruguay. (60). **F**
- Goebel, Julius, Ph. D., Professor of German, University of Illinois, Urbana, Ill. (60). **L**
- *Goessmann, Charles Anthony, Professor of Chemistry, Massachusetts Agricultural College, Amherst, Mass. (18). 1875. **C**
- Goetze, Frederick Arthur, Dean, Schools of Mines, Engineering and Chemistry, Columbia University, New York, N. Y. (57). **CD**
- Goldan, S. Ormond, M. D., 59 West 74th St., New York, N. Y. (60). **K**
- Goldbach, Leo John, M. D., 2217 East Pratt St., Baltimore, Md. (60). **K**
- Goldbaum, Jacob Samuel, University of Pennsylvania, Philadelphia, Pa. (60). **C**
- *Golden, Asher, 1779 Broadway, New York, N. Y. (54). 1906. **BD**
- Golden, Isaac J. K., M. D., 2238 West North Ave., Chicago, Ill. (58). **K**
- *Goldfarb, A. Julius, Columbia University, New York, N. Y. (57). 1908. **F K**
- Goldman, Marcus Isaac, U. S. Geological Survey, Washington, D. C. (58). **E**
- Goldsborough, Francis C., M. D., 924 St. Paul St., Baltimore, Md. (60). **K**
- GOLDSBOROUGH, JOHN BYRON, Croton-on-Hudson, N. Y. (57).
- *Goldschmidt, Samuel Anthony, Ph. D., 43 Sedgwick St., Brooklyn, N. Y. (24). 1880. **C**
- Goldsmith, Byron B., 19 East 74th St., New York, N. Y. (58). **BCD**
- *Goldsmith, Edw., Ph. D., 658 North 10th St., Philadelphia, Pa. (29). 1892. **B C**
- Goldthwait, Joel E., M. D., 372 Marlborough St., Boston, Mass. (60). **K**
- *Goldthwait, James Walter, Ph. D., Assistant Professor of Geology, Dartmouth College, Hanover, N. H. (58). 1908. **E**

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- *Goldthwaite, Nellie Esther, Ph. D., University of Illinois, Urbana, Ill. (47). 1910. **CK**
 Goltman, Max, M. D., 410 Union Ave., Memphis, Tenn. (60). **K**
- *Gomberg, Moses, Professor of Organic Chemistry, Chemical Laboratory, University of Michigan, Ann Arbor, Mich. (51). 1904. **C**
- *Gooch, Frank Austin, Ph. D., Professor of Chemistry, Yale University, New Haven, Conn. (25). 1880. **C**
- *Goodale, Prof. George Lincoln, Botanic Gardens, Cambridge, Mass. (18). 1875. **G**
 Goodale, Hubert Dana, R. F. D. No. 29, Oakwood, Stamford, Conn. (57). **F**
- *Goodale, Joseph Lincoln, M. D., 258 Beacon St., Boston, Mass. (50). 1906. **FK**
 Goodale, Stephen Lincoln, Asst. Professor of Mining and Metallurgy, University of Pittsburg, Pittsburg, Pa. (61). **D**
- *Goode, John Paul, Ph. D., Assistant Professor of Geography, University of Chicago, Chicago, Ill. (52). 1905. **EHIL**
 Goodell, F. E., North High School, Des Moines, Iowa. (60).
 Goodenow, Miss Valeria Stone, 3100 Broadway, New York, N. Y. (57). **FG**
- Goodman, Abraham Lincoln, M. D., 263 West 113th St., New York, N. Y. (56). **HIK**
 Goodman, Henry M., M. D., 721 3d Ave., Louisville, Ky. (60). **K**
 Goodnow, Henry R., 98 Riverside Drive, New York, N. Y. (32). **BC**
- Goodrich, Julia Irene, Secretary, Station for Experimental Evolution, Cold Spring Harbor, L. I., N. Y. (60). **F**
- *Goodspeed, Arthur Willis, Ph. D., Laboratory of Physics, University of Pennsylvania, Philadelphia, Pa. (47). 1898. **B**
- *Goodwin, Harry M., Ph. D., Professor of Physics, Massachusetts Institute of Technology, Boston, Mass. (47). 1901. **B**
 Goodwin, Rev. James, 76 Garden St., Hartford, Conn. (52). **I**
 Goodwin, Dr. William L., School of Mining, Kingston, Ont., Can. (60). **C**
 Goodwin, W. Nelson, Jr., 70 Sanford St., East Orange, N. J. (58). **BD**
- *Goodyear, William Henry, Museum of Brooklyn Institute of Arts and Sciences, Brooklyn, N. Y. (43). 1902. **H**
 Gordin, Prof. Harry Mann, Northwestern University School of Pharmacy, 13 East Chestnut St., Chicago, Ill. (56). **C**
- Gordon, A. T., Mount Iron, Minn. (60). **C**
- *Gordon, Charles Henry, Ph. D., University of Tennessee, Knoxville, Tenn. (52). 1905. **E**
 Gordon, Clarence E., Assistant Professor of Zoology and Geology, Massachusetts Agricultural College, Amherst, Mass. (57). **EF**
- *Gordon, C. McCheyne, Ph. D., Professor of Physics, Lafayette College, Easton, Pa. (48). 1906. **ABC**
 Gordon, Fred. W., M. E., Clardon, Orchard Lane, Ft. Washington, Philadelphia, Pa. (58). **D**

- Gordon, Gustavus Ede, Scientific Director, Walker-Gordon Laboratory Co., Chevy Chase, Md. (50). **F**
- Gordon, Reginald, Newburgh, N. Y. (50).
- *Gorham, Frederic P., Associate Professor of Biology, Brown University, Providence, R. I. (53). 1906. **FK**
- Gorter, Nathan R., 1 West Biddle St., Baltimore, Md. (60). **K**
- Gorton, Frederick R., Ph. D., Michigan State Normal College, Ypsilanti, Mich. (58). **B**
- Goss, Willard L., U. S. Department of Agriculture, Washington, D. C. (57). **G**
- *Goss, Prof. Wm. Freeman Myrick, Dean of College of Engineering, University of Illinois, Urbana, Ill. (39). 1896. **D**
- *Gossard, Harry Arthur, Professor of Entomology, Ohio Agricultural Experiment Station, Wooster, Ohio. (50). 1906. **F**
- *Gottschalk, Victor Hugo, Professor of Chemistry, Missouri School of Mines, Rolla, Mo. (54). 1909. **C**
- Goucher, John Franklin, M. D., LL. D., President, Woman's College, Baltimore, Md. (50).
- *Gould, Charles Newton, Ph. D., Professor of Geology, University of Oklahoma, Norman, Okla. (53). 1907. **E**
- *Gould, George Milbry, M. D., "The Sentinels," Cayuga Heights, Ithaca, N. Y. (51). 1902. **HK**
- Gould, H. P., 114 W St. N. W., Washington, D. C. (52). **G**
- Gouldy, Miss Jennie A., 169 Montgomery St., Newburgh, N. Y. (50). **I**
- *Grabau, Amadeus W., Professor of Palæontology, Columbia University, New York, N. Y. (54). 1905. **E**
- Graber, Myron Earle, 122 Circular St., Tiffin, Ohio. (58). **ABD**
- Graef, Edward L., 58 Court St., Brooklyn, N. Y. (28). **F**
- Graff, M. Brayton, care The Proctor & Gamble Co., Ivorydale, Ohio. (58). **C**
- Graff, Paul Weidenmyer, Ph. D., Kansas State Agricultural College, Manhattan, Kans. (60). **F**
- Graham, Douglas, M. D., 74 Boylston St., Boston, Mass. (51). **K**
- Graham, James Chandler, Phillips Academy, Andover, Mass. (50).
CEL
- *Graham, John Young, Ph. D., Professor of Biology, University of Alabama, University, Ala. (54). 1909. **FG**
- *Graham, Wm. Joseph, Northwestern National Life Insurance Co., Minneapolis, Minn. (54). 1907. **AI**
- Graham, William P., Professor of Electrical Engineering, Syracuse University, Syracuse, N. Y. (60). **D**
- Graham-Maingot, Ferdinand Joseph, 23 St. Vincent St., Port of Spain, Trinidad, B. W. I. (57).
- *Grant, Ulysses Sherman, Ph. D., Professor of Geology, Northwestern University, Evanston, Ill. (50). 1902. **E**
- Grant, William V., M. D., 443 Broadway, Lawrence, Mass. (60). **K**

MEMBERS AND FELLOWS.

- Grant, Willis Howard, 148 West 132nd St., New York, N. Y. (50). **C G**
- *Granville, William Anthony, Ph. D., Instructor in Mathematics, Yale University, New Haven, Conn. (50). 1906. **A**
- Grasby, William Catton, care Western Mail, Perth, West Australia. (58). **F**
- *Gratacap, L. P., 77th St. and 8th Ave., New York, N. Y. (27). 1884. **C E F**
- *Grave, Caswell, Associate Professor of Zoology, Johns Hopkins University, Baltimore, Md. (54). 1909. **F**
- Graves, Charles B., M. D., 66 Franklin St., New London, Conn. (60). **K**
- Graves, Frank P., 1623 First National Bank Building, Chicago, Ill. (58).
- Graves, W. B., Andover, Mass. (54).
- Graves, William B., "Rosewell," Pikesville, Md. (60).
- Graves, William W., M. D., 5136 Morgan St., St. Louis, Mo. (58). **H K L**
- Gray, Frank Pierce, M. D., 2401 Buchanan St., San Francisco, Cal. (60). **K**
- Gray, Mrs. Horace, 79 Mt. Vernon St., Boston, Mass. (60).
- Gray, Miss Isa E., 5 Chestnut St., Boston, Mass. (60).
- Gray, John H., Jr., 2040 Lake St., San Francisco, Cal. (60). **C**
- Gray, R. S., 1921 Telegraph Ave., Oakland, Cal. (58). **G**
- *Gray, Thomas Tarvin, Chemist, Tidewater Oil Co., Bayonne, N. J. (57). 1910. **C**
- Graybill, Harry W., Bureau of Animal Industry, U. S. Dept. of Agriculture, Washington, D. C. (58). **F**
- Graydon, Thomas J., 603 Masonic Temple, Chicago, Ill. (58).
- Greeder, Herman, Plattsmouth, Nebraska. (60). **C**
- Greeff, Ernest F., 112 Spring St., New York, N. Y. (49).
- Greeff, J. G. Wm., M. D., 24 West 91st St., New York, N. Y. (57). **K L**
- *Green, Arthur Lawrence, Purdue University, Lafayette, Ind. (33). 1888. **C**
- *Green, Bernard Richardson, C. E., Superintendent, Buildings and Grounds, Library of Congress, Washington, D. C. (51). 1903. **B D**
- Green, Edgar Moore, M. D., 222 Spring Garden St., Easton, Pa. (36). **C G K**
- Green, James Arleigh, C. E., 226 La Salle St., Chicago, Ill. (58). **D**
- Green, Jerome J., Professor of Physics and Electrical Engineering, University of Notre Dame, Notre Dame, Ind. (54). **B D**
- Green, Milbrey, M. D., 567 Columbus Ave., Boston, Mass. (29). **H K**
- Green, Sarah Letty, Wilson College, Chambersburg, Pa. (58). **A B C**
- Green, William F., University of Toronto, Toronto, Canada. (61). **C E**
- *Greene, Arthur Maurice, Jr., 20 Hawthorne Ave., Troy, N. Y. (54). 1905. **D**
- *Greene, Chas. Lyman, M. D., 150 Lowry Arcade, St. Paul, Minn. (51). 1909. **K**
- *Greene, Charles Wilson, Ph. D., Professor of Physiology and Pharmacology, University of Missouri, Columbia, Mo. (50). 1901. **F K**

- Greene, Frank Cook, 317 Bank St., New Albany, Ind. (61). **E**
 Greene, George Kennard, 127 West Market St., New Albany, Ind. (38).
E
 Greene, Levi R., M. E., 132 Federal St., Boston, Mass. (60). **D**
 GREENE, WM. H., N. E. cor. Arch and 16th Sts., Philadelphia, Pa. (54).
 Greenfield, B. Spencer, 17 Mt. Auburn St., Cambridge, Mass. (61). **D H**
 Greenman, Edwin G., M. E., 1764 Fairmount Ave., Cincinnati, Ohio.
 (60). **D**
 *Greenman, Jesse More, 5731 Madison Ave., Chicago, Ill. (47). 1899. **G**
 Greenman, Milton J., M. D., Director, Wistar Institute of Anatomy,
 Philadelphia, Pa. (60). **K**
 Greenough, Chas., 12 West 44th St., New York, N. Y. (57).
 Greenough, John, 59 Wall St., New York, N. Y. (49).
 Greenway, James C., M. D., Greenwich, Conn. (53). **C K**
 *Greenwood, George William, Dunbar, Pa. (54). 1906. **A**
 Greer, Hon. Henry Harrison, Mt. Vernon, Ohio. (56). **I**
 Greer, James Richard, University of Chicago, Chicago, Ill. (57). **K**
 Greeson, W. A., City Hall, Grand Rapids, Mich. (58).
 Gregg, Frank C., M. D., Manor, Texas. (60). **K**
 Gregg, William Henry, M. D., 135 Cambridge Place, Brooklyn, N. Y.
 (49). **C F**
 *Gregory, Emily Ray, Ph. D., American College for Girls, Constantinople,
 Turkey. (50). 1901. **F G**
 *Gregory, Herbert E., Professor of Geology, Yale University, New Haven,
 Conn. (50). 1902. **E**
 Gregory, Minus S., M. D., Bellevue Hospital, New York, N. Y. (57). **K**
 Gregory, Wm. K., 2313 Loring Place, University Heights, New York,
 N. Y. (57). **F**
 Gregory, William M., 105 Burton Ave., Station H, Cleveland, Ohio.
 (60). **A G**
 Greiner, B. H., Culver Military Academy, Culver, Ind. (60). **A**
 Greit, Adolph J., E. M., 27 William St., New York, N. Y. (58). **D**
 Gribbel, John, 1513 Race St., Philadelphia, Pa. (54).
 Griffin, Dan Baker, Winooski, Vt. (60). **F**
 *Griffin, Frank Loxley, Ph. D., Asst. Professor of Mathematics, Williams
 College, Williamstown, Mass. (60). 1910. **A**
 *Griffin, John Joseph, Ph. D., Professor of Chemistry, Catholic University
 of America, Washington, D. C. (54). 1910. **C**
 Griffith, Benjamin A., M. D., Swan Creek, Ill. (60). **K**
 Griffith, Herbert E., 1527 North Cherry St., Galesburg, Ill. (60). **C**
 *Griffiths, David, Ph. D., U. S. Department of Agriculture, Washington,
 D. C. (49). 1903. **G**
 *Griggs, Robert F., Assistant Professor of Botany, Ohio State University,
 Columbus, Ohio. (52). 1909. **G**
 Grimm, Carl Robert, Bridge and Structural Engineer, Standish Arms,
 167 Columbia Heights, Brooklyn, N. Y. (51). **D**

MEMBERS AND FELLOWS.

- *Grimsley, George Perry, Ph. D., Martinsburg, W. Va. (51). 1905. **E**
- *Grindley, Dr. Harry Sands, Professor of Animal Chemistry, University of Illinois, Urbana, Ill. (46). 1898. **C**
- *Grinnell, George Bird, Ph. D., 127 Franklin St., New York, N. Y. (25). 1885. **H**
- Grinnell, Joseph, Curator, Museum of Vertebrate Zoology, University of California, Berkeley, Cal. (61). **F G H**
- Griscom, Clement A., Jr., 21 Washington Square, N., New York, N. Y. (57).
- Griswold, Clifford S., Head, Department of Physics, Groton School, Groton, Mass. (50). **B**
- Griswold, Harry Todd, C. E., 2610 Broadway, New York, N. Y. (60). **D**
- *Griswold, Leon Stacy, Assistant Professor of Geology and Mineralogy, School of Mines and Metallurgy, University of Missouri, Rolla, Mo. (38). 1893. **E**
- *Groat, Benjamin Feland, Professor of Mechanics and Mathematics, University of Minnesota, Minneapolis, Minn. (51). 1904. **A B C D**
- Groat, William Avery, M. D., 505 South Warren St., Syracuse, N. Y. (60). **K**
- Groom, Wallace P., Academy of Music Building, Brooklyn, N. Y. (57). **B C D I**
- Gross, Abraham, 5125 Liberty Ave., Pittsburg, Pa. (58). **C**
- Gross, Cheney C., M. D., 416 Walnut St., Yankton, S. D. (58). **K**
- Gross, Julius H., M. D., Glendale Heights, Kirkwood, Mo. (60). **K**
- Grossart, Lewis J. H., C. E., 423 Commonwealth Building, Allentown, Pa. (60). **D**
- Grossman, Edward L., M. D., Supt., Iron Springs Sanatorium, Steilacoom, Wash. (53). **K**
- *Grosvenor, Gilbert H., Editor, *National Geographic Magazine*, Hubbard Memorial Hall, Washington, D. C. (48). 1906. **E H**
- Groszmann, Dr. Maximilian P. E., Director, Groszmann School, Johnston's Drive, Plainfield, N. J. (52). **K**
- *Grout, Abel Joel, Ph. D., New Dorp, S. I., N. Y. (47). 1899. **G L**
- Grout, Frank F., 1202 7th St., S. E., Minneapolis, Minn. (60). **C**
- Grout, Prof. George P., Instructor in Dairy Husbandry, Minnesota Experiment Station, St. Anthony Park, Minn. (58).
- Grove, Benjamin H., M. D., 334 Pearl St., Buffalo, N. Y. (60). **K**
- *Grove, Charles Clayton, Ph. D., Instructor in Mathematics, Columbia College, Columbia University, New York, N. Y. (58). 1909. **A**
- *Grover, Frederick Orville, Professor of Botany, Oberlin College, Oberlin, Ohio. (50). 1906. **G**
- Grower, Geo. G., 48 Cottage Ave., Ansonia, Conn. (43). **B D**
- Gruenberg, Benjamin C., Commercial High School, Albany Ave. and Bergen St., Brooklyn, N. Y. (52). **F G L**
- *Gruener, Hippolyte, Professor of Chemistry, Adelbert College, Cleveland, Ohio. (44). 1898. **C**
- Grugan, F. Justice, 607 Chestnut St., Philadelphia, Pa. (58). **D E**

- Gucker, Frank T., 3420 Hamilton St., Philadelphia, Pa. (54).
- *Gudeman, Edward, Ph. D., 903 Postal Telegraph Building, Chicago, Ill. (57). 1909. **C D K**
- Gudger, Eugene Willis, Ph. D., Professor of Biology, State Normal and Industrial College, Greensboro, N. C. (60). **F**
- *Guenther, A. E., Ph. D., Professor of Physiology, University of Nebraska, Lincoln, Nebr. (57). 1909. **K**
- GUGGENHEIM, WM., 500 Fifth Ave., New York, N. Y. (57). **D**
- Guiher, Horace B., M. D., Smithfield, Pa. (60). **K**
- Guinzburg, Richard A. 234 Central Park, West, New York, N. Y. (57). **I**
- Gulick, Addison, 1 Schiltgleimer Place, Strasburg, Germany. (58).
- Gulick, Louise, Clark University, Worcester, Mass. (61). **F**
- *Gulick, Luther Halsey, M. D., Secretary, Physical Training Department, National Y. M. C. A., New York, N. Y. (52). 1909. **K L**
- *Gulliver, Frederic Putnam, Ph. D., 30 Huntington Lane, Norwich, Conn. (40). 1900. **E L**
- *Gummere, Henry Volkmar, Drexel Institute, Philadelphia, Pa. (51). 1906. **A B**
- Gundry, Lewis H., M. D., Relay Station, Md. (60). **K**
- Gunn, Selskar Michael, 227 Main St., Orange, N. J. (58). **I K**
- *Gunther, Chas. Otto, M. E., Professor of Mathematics and Mechanics, Stevens Institute of Technology, Hoboken, N. J. (57). 1909. **A B D L**
- Gunthorp, Horace, Professor of Biology, Southwestern College, Winfield, Kansas. (61). **F**
- Gurgenianz, Dr. Gregor, Analytical Chemist, Oilport, Cal. (58). **C**
- Gurney, C. H., M. D., Rossville, Ga. (60). **K**
- Gurney, Lawrence Emery, Ph. D., University of Idaho, Moscow, Idaho. (58). **B**
- Güssow, H. T., Botanist, Central Experiment Farm, Ottawa, Canada. (60). **G**
- Gustafson, Carl F., 4412 Scarritt Ave., Kansas City, Mo. (58). **C**
- *Guthe, Karl Eugen, Ph. D., Professor of Physics, University of Michigan, Ann Arbor, Mich. (45). 1897. **B**
- *Guthrie, Chas. Claude, M. D., Professor of Physiology, University of Pittsburg, Pittsburg, Pa. (58). 1909. **K**
- Guthrie, David Vance, Ph. D., Instructor in Physics, University of Virginia, Charlottesville, Va. (60). **B**
- Guthrie, Rev. Donald, 808 Park Ave., Baltimore, Md. (60). **K**
- Guthrie, Joseph Edward, Instructor in Zoology, Iowa State College, Ames, Iowa. (52). **F**
- Guthrie, William Alvis, M. D., Southern Kentucky Sanatorium, Franklin, Ky. (51). **K**
- *Guttman, Leo Frank, Ph. D., Assistant Professor of Chemistry, School of Mining, Kingston, Ontario, Canada. (58). 1910. **C**
- *Guyer, Michael Frederic, Ph. D., Professor of Zoology, University of Cincinnati, Cincinnati, Ohio. (52). 1905. **F K**

MEMBERS AND FELLOWS.

- Gwathmey, James Tayloe, M. D., 124 East 16th St., New York, N. Y. (60). **K**
- Hachtel, F. W., M. D., 122 West Lafayette Ave., Baltimore, Md. (60). **K**
- Hackett, Wm. H., E. M., 607 North Pearl St., Joplin, Mo. (58). **D**
- Haddock, Isaac T., Cambridge Gas Light Co., Cambridge, Mass. (60). **C**
- Hadley, Artemus N., Box 313, Indianapolis, Ind. (51). **D**
- *Hadley, Philip B., Ph. D., Chief, Division of Biology, Rhode Island Agricultural Experiment Station, Kingston, R. I. (58). 1910. **F**
- *Hadley, Stephen Marshall, Ph. D., Professor of Mathematics and Astronomy, Penn College, Oskaloosa, Iowa. (54). 1906. **A**
- Haecker, Theophilus L., Professor of Dairy Husbandry, University of Minnesota, Minneapolis, Minn. (58). **I**
- Hafer, George, Jr., E. E., Lenox Hotel, Buffalo, N. Y. (60). **D**
- Hagar, Stansbury, 48 Wall St., New York, N. Y. (43). 1899. **H**
- Hagenow, Charles F., Instructor in Mathematics, Armour Institute, Chicago, Ill. (58). **AB**
- Hager, Daniel S., M. D., 181 West Madison St., Chicago, Ill. (58). **HK**
- *Hague, Dr. Arnold, U. S. Geological Survey, Washington, D. C. (26). 1879. **E**
- HAGUE, WM., 22 William St., New York, N. Y. (57). **DE**
- Hagy, Claude B., Instructor in Physics and Chemistry, Central High School, Philadelphia, Pa. (57). **BC**
- Hahn, Clarence Wilson, 601 West 182d St., New York, N. Y. (57). **FKL**
- Hahn, Walter Louis, Ph. D., Fur-seal Service, U. S. Bureau of Fisheries, Washington, D. C. (57). **F**
- Hailmann, W. N., 1922 W. 99th St., Cleveland, Ohio. (61).
- Hailman, James D., C. E., 310 South Lang Ave., Pittsburg, Pa. (51). **BH**
- Haimbach, Frank, 150 Sumac St., Wissahickon, Philadelphia, Pa. (58). **F**
- Haines, George Clark, Durand, Ill. (58). **FG**
- Haines, George M., M. D., Durand, Ill. (60). **K**
- *Haines, Thomas Harvey, Ph. D., Professor of Psychology, Ohio State University, Columbus, Ohio. (52). 1905. **HKL**
- Haines, Walter S., Rush Medical College, Chicago, Ill. (58). **C**
- Halberstadt, Baird, Pottsville, Pa. (60). **E**
- *Hale, Albert C., Ph. D., 487 Halsey St., Brooklyn, N. Y. (29). 1886. **BC**
- Hale, Clarence Frederick, 217 Mitchell St., Ithaca, N. Y. (60). **C**
- Hale, George David, 1059 Lake Ave., Rochester, N. Y. (41).
- *Hale, George Ellery, Observatory Office, Pasadena, Cal. (37). 1891. **AB**
- Hale, Henry Warren Kilburn, 1510 North Broad St., Philadelphia, Pa. (54). **ABD**
- Hale, William Gardner, 5749 Kimbark Ave., Chicago, Ill. (61). **L**
- *Hale, William H., Ph. D., Superintendent, Public Baths, 40 First Place, Brooklyn, N. Y. (19). 1874. **ABCFHI**

- *Hale, Wm. J., Ph. D., Instructor in Chemistry, University of Michigan, Ann Arbor, Mich. (54). 1910. **C**
- *Hall, Arthur Graham, Ph. D., Professor of Mathematics, University of Michigan, Ann Arbor, Mich. (60). 1910. **A**
- *Hall, Asaph, U.S. Naval Observatory, Washington, D.C. (38). 1890. **A**
- *Hall, Charles M., Vice-President, Pittsburg Reduction Co., Niagara Falls, N. Y. (50). 1904. **C**
- *Hall, Prof. Christopher Webber, Dean, College of Engineering, University of Minnesota, Minneapolis, Minn. (28). 1883. **D E**
- *Hall, Edwin Herbert, Ph. D., Professor of Physics, Harvard University, Cambridge, Mass. (29). 1881. **B**
- *Hall, Elmer Edgar, Ph. D., 1501 Le Roy Ave., Berkeley, Cal. (58). 1910. **B**
- Hall, Fred J., 4 Benedict Ave., Tarrytown, N. Y. (58).
- Hall, Gaylord C., 622 West 137th St., New York, N. Y. (57). **D**
- Hall, H. Porter, M. D., Leominster, Mass. (60). **K**
- *Hall, James Pierre, *New York Tribune*, New York, N. Y. (40). 1906. **A B D**
- Hall, Joseph Underwood, M. D., 216 Autumn St., San José, Cal. (51). **K**
- Hall, Louis Wells, C. E., U. S. Reclamation Service, Hazen, Nevada. (60). **D**
- *Hall, Lyman Beecher, Ph. D., Haverford College, Haverford, Pa. (31). 1884. **C**
- *Hall, Robert William, Ph. D., Professor of Biology, Lehigh University, South Bethlehem, Pa. (50). 1905. **F**
- Hall, Roy D., Ph. D., 35 Franklin Ave., East Orange, N. J. (58). **C**
- Hall, Sidney Storrs, M. D., 424 Woodside Ave., Ripon, Wis. (60). **K**
- *Hall, Thomas Cuming, D. D., Professor of Theology, Union Theological Seminary, New York, N. Y. (54). 1906. **I**
- Hall, Thomas R. A., 39 East 42nd St., New York, N. Y. (57).
- *Hall, Willam Bonnell, M. D., Benton, Ala. (51). 1909. **K**
- *Hall, William Shafer, Professor of Mining and Graphics, Lafayette College, Easton, Pa. (50). 1906. **A D**
- *Hall, Wm. T., Instructor in Chemistry, Massachusetts Institute of Technology, Boston, Mass. (57). 1910. **C**
- Hall, William T., M. D., 401 Lock St., Tarentum, Pa. (60). **K**
- *Hall, Winfield Scott, M. D., Ph. D., Professor of Physiology, Northwestern University Medical School, Chicago, Ill. (52). 1907. **H K L**
- Hallack, H. Tuthill, M. D., 4801 West 38th Ave., Denver, Colo. (51). **K**
- Hallberg, Carl Svanté Nicanor, Professor of Pharmacy, University of Illinois School of Pharmacy, 74 East 12th St., Chicago, Ill. (60). **E K**
- *Hallock, Albert P., Ph. D., 440 First Ave., New York, N. Y. (31). 1896. **C**
- Hallock, Frank Kirkwood, M. D., Cromwell Hall, Cromwell, Conn. (50). **H K**
- *Hallock, William, Ph. D., Professor of Physics, Columbia University, New York, N. Y. (40). 1893. **B E**

MEMBERS AND FELLOWS.

- *Hallowell, Susan Maria, Professor of Botany, Wellesley College, Wellesley, Mass. (33). 1890. **G**
- Halsey, Robert Hurtin, M. D., 118 West 58th St., New York, N. Y. (56). **K**
- Halstead, Ernest W., Las Polacios, Province Pinar del Rio, Cuba. (54).
E F G
- Halsted, Arthur, E. E., 60 Wall St., New York, N. Y. (60). **D**
- *Halsted, Byron D., Professor of Botany and Horticulture, Rutgers College, New Brunswick, N. J. (29). 1883. **G**
- *Halsted, George Bruce, Ph. D., Box 68, Greeley, Colo. (43). 1896. **A**
- *Halsted, William Stewart, M. D., 1201 Eutaw Place, Baltimore, Md. (50). 1903. **I K L**
- Ham, Miss Clara Eleanor, Instructor in Biology, Middleboro, Mass. (53). **F**
- *Hamaker, John Irvin, Ph. D., Professor of Biology, Randolph-Macon Woman's College, College Park, Va. (50). 1901. **F**
- Hamann, Carl A., M. D., 416 Osborn Building, Cleveland, Ohio. (58). **K**
- Hambleton, Francis H., 912 North Charles St., Baltimore, Md. (60). **D**
- Hambleton, James Chase, Head, Department of Science, East High School, Columbus, Ohio. (58). **F**
- Hamburger, Louis P., M. D., 1207 Eutaw Place, Baltimore, Md. (60). **K**
- HAMERSCHLOG, ARTHUR A., Director, Carnegie Technical Schools, Schenley Park, Pittsburg, Pa. (57). **D**
- Hamilton, Francis Marion, Ph. D., New York Training School for Teachers, New York, N. Y. (58). **H L**
- Hamilton, George A., E. E., 532 Morris Ave., Elizabeth, N. J. (60). **D**
- Hamilton, S. Harbert, 4806 Fairmount Ave., Philadelphia, Pa. (54).
C E H
- Hamilton, Walter R., E. M., 423 Wells Fargo Building, San Francisco, Cal. (60). **D**
- Hamlin, George Herbert, C. E., Orono, Me. (60). **D**
- Hamlin, Wilber Grafton, M. D., 163 State St., Chicago, Ill. (58). **K**
- Hamman, Louis, M. D., 21 West Franklin St., Baltimore, Md. (60). **K**
- Hammar, Alfred G., Bureau of Entomology, U. S. Department of Agriculture, Washington, D. C. (58). **F**
- *Hammer, William Joseph, 153 West 46th St., New York, N. Y. (52). 1906. **B D**
- Hammerschlag, Henry A., 38 Breintnall Place, Newark, N. J. (60). **C**
- Hammond, George T., C. E., 156 Berkeley Place, Brooklyn, N. Y. (60). **D**
- Hammond, Howard Spurr, State University of Iowa, Iowa City, Iowa. (58). **G**
- *Hammond, John Hays, 71 Broadway, New York, N. Y. (50). 1901.
D E I L
- HAMMOND, MRS. JOHN HAYS, 320 Madison Ave., Lakewood, N. J. (50). **H**
- Hamner, Nicholas C., College Station, Tex. (60). **C**
- Hampton, H. H., Johns Hopkins Medical School, Baltimore, Md. (60). **C**
- *HANAMAN, C. E., Troy, N. Y. (19). 1883. **F**

- Hanawalt, Geo. P., M. D., Masonic Temple, Des Moines, Iowa. (58). **K**
- Hance, Anthony M., 2217 DeLancey Place, Philadelphia, Pa. (51).
C D G
- Hancock, H. Irving, Ferguson-Hancock Laboratories, Blue Point, L. I., N. Y. (56). **C K**
- *Hancock, Harris, Ph. D., Professor of Mathematics, University of Cincinnati, Cincinnati, Ohio. (54). 1906. **A**
- Hancock, James Cole, M. D., 135 Cambridge Place, Brooklyn, N. Y. (51). **K**
- Hancock, John A., Box 563, Mankato, Minn. (61).
- Hancock, Joseph Lane, M. D., 3757 Indiana Ave., Chicago, Ill. (58). **K**
- Hancock, L. M., E. E., Box 235, Fortuna, Cal. (60). **D**
- Hancock, William James, care Rev. Elliston Perot, Montrose, Pa. (60). **L**
- Hancock, William Jerome, Erasmus Hall High School, Brooklyn, N. Y. (58). **C**
- Hanes, Granville S., M. D., Masonic Temple, Louisville, Ky. (60). **K**
- Hanford, G. A., 131 Coolidge Ave., Syracuse, N. Y. (60). **C**
- Hanger, G. Wallace W., Ph. D., Chief Clerk, U. S. Bureau of Labor, Washington, D. C. (54). **H I L**
- Hankinson, Thomas Leroy, Assistant in Biology, State Normal School, Charleston, Ill. (53). **F L**
- Hanks, Marshall W., 300 Fulton St., De Pere, Wis. (54). **B C D**
- *Hanna, Ulysses Sherman, Professor of Mathematics, 828 Atwater Ave., Bloomington, Ind. (58). 1909. **A**
- Hansen, Mrs. Hermine Z., Glencoe Hotel, Cincinnati, Ohio. (57). **F G**
- Hansen, Rev. James, St. John's University, Collegeville, Minn. (58).
F G
- Hansen, Niels Ebbesen, Professor of Horticulture, South Dakota State College of Agriculture and Mechanic Arts, Brookings, S. D. (58). **G**
- Hanson, Rev. F. V., 556 East 2nd St., Jamestown, N. Y. (61). **G**
- Hanson, H. H., Maine Agricultural Experiment Station, Orono, Me. (58). **C**
- Hanson, Hans Olaf, Bayshore Terrace, East Elmhurst, L. I., N. Y. (56).
- *Hanus, Paul Henry, LL. D., Professor of Education, Harvard University, Cambridge, Mass. (60). 1910. **L**
- Harcourt, Robert, Professor of Chemistry, Ontario Agricultural College, Guelph, Ontario, Canada. (58). **C**
- Hardenbergh, Henry, Horse Head Inn, Palmerton, Pa. (58). **C**
- Harder, E. C., U. S. Geological Survey, Washington, D. C. (60). **E**
- *Harding, Everhart Percy, Ph. D., Assistant Professor of Chemistry, University of Minnesota, Minneapolis, Minn. (50). 1901. **C**
- *Harding, Harry Alexis, New York Agricultural Experiment Station, Geneva, N. Y. (48). 1906. **G K**
- Hardy, Edward R., 419 West 118th St., New York, N. Y. (60).
- *Hargitt, Charles Wesley, Ph. D., Professor of Zoology, Syracuse University, Syracuse, N. Y. (38). 1891. **F K L**

MEMBERS AND FELLOWS.

- Hargitt, George Thomas, Ph. D., Instructor in Zoology, Northwestern University, Evanston, Ill. (58). **F**
- Hargrove, Julian Otho, 1603 O St. N. W., Washington, D. C. (58). **C D E**
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- Harlow, Commander C. H., U. S. N., care Postmaster, New York, N. Y. (60).
- Harlow, George A., M. D., 21 Prospect Ave., Milwaukee, Wis. (60). **K**
- Harlow, William Page, M. D., Boulder, Colo. (60). **K**
- Harmian, Mary Theresa, Instructor in Zoology, Pennsylvania State College, State College, Pa. (60). **F**
- Harmon, Charles Sumner, 1st National Bank Building, Chicago, Ill. (60).
- Harmon, Herbert W., 418 Poplar St., Grove City, Pa. (52). **B**
- Harmon, Judson B., E. E., Diamond Ave., Woodhaven, Long Island, N. Y. (60). **D**
- Harned, Robey Wentworth, Agricultural College, Miss. (58). **F**
- Harnly, Henry Jacob, Ph. D., Professor of Biology, McPherson College, McPherson, Kans. (50). **F G**
- Harper, Eugene Howard, 1105 Grant St., Evanston, Ill. (60). **K**
- *Harper, Henry Winston, M. D., Professor of Chemistry, University of Texas, Austin, Tex. (45). 1899. **C K**
- Harper, James, Jr., 127 East 28th St., New York, N. Y. (57).
- Harper, John L., C. E., Niagara Falls, N. Y. (60). **D**
- Harper, Joseph Nelson, Professor of Agriculture, Clemson Agricultural College, Clemson College, S. C. (58). **G**
- *Harper, Robert Almer, Ph. D., Professor of Botany, University of Wisconsin, Madison, Wis. (54). 1906. **G**
- Harper, Robert Brinton, 5534 Washington Ave., Chicago, Ill. (58). **C**
- Harper, Robert Henry, M. D., Afton, Okla. (50). **F H K**
- *Harper, Roland McMillan, Ph. D., 557 First Ave., College Point, N. Y. (55). 1909. **E G**
- Harpham, Edwin L., 931 Maple Ave., Evanston, Ill. (58).
- Harrah, C. J., P. O. Box 1606, Philadelphia, Pa. (48). **H**
- Harrington, Elmer A., Williams College, Williamstown, Mass. (61). **B**
- Harrington, John Lyle, 2458 Forest Ave., Kansas City, Mo. (58). **D**
- Harriot, Caroline, Court Inn, Camden, S. C. (58).
- *Harris, Abram Winegardner, LL. D., President, Northwestern University, Evanston, Ill. (40). 1895. **C**
- Harris, Frederick S.,(50). **E**
- Harris, Professor Gilbert Dennison, Ithaca, N. Y. (58). **E**
- *HARRIS, J. CAMPBELL, 119 South 16th St., Philadelphia, Pa. (50). 1907. **F**
- *Harris, James Arthur, Ph. D., Station for Experimental Evolution, Cold Spring Harbor, L. I., N. Y. (52). 1907. **F G**
- *Harris, Norman MacLeod, Assistant Professor of Bacteriology, University of Chicago, Chicago, Ill. (54). 1906. **K**
- Harris, N. W., 204 Dearborn St., Chicago, Ill. (58).

- Harris, Robert Wayne, M. D., 621 Vincennes St., New Albany, Ind. (51). **K**
- *Harris, Rollin Arthur, Ph. D., U. S. Coast and Geodetic Survey, Washington, D. C. (47). 1899. **A B E**
- Harris, Turner M., 1118 Main St., Danville, Va. (61).
- *Harris, Uriah Rose, Rear-Admiral, U. S. N., Navy Yard, Philadelphia, Pa. (34). 1886. **A**
- Harris, William Denny, 3611 Sansom St., Philadelphia, Pa. (54). **B C D**
- *Harrison, John Burchmore, Director, Government Laboratory, Georgetown, British Guiana. (58). 1910. **C E**
- *Harrison, Ross Granville, Ph. D., Professor of Comparative Anatomy, Yale University, New Haven, Conn. (54). 1906. **F K**
- Harrod, Benjamin Morgan, C. E., 1637 Foucher St., New Orleans, La. (60). **D**
- Harrold, Charles C., M. D., 461 Cherry St., Macon, Ga. (60). **K**
- Harsh, S. A., P. O. Box 910, Denver, Colo. (60). **C**
- Harsha, William M., M. D., 4201 Grand Boulevard, Chicago, Ill. (60). **K**
- *Harshberger, John W., Assistant Professor of Botany, University of Pennsylvania, Philadelphia, Pa. (54). 1906. **G**
- *Hart, Charles Arthur, University of Illinois, Urbana, Ill. (51). 1906. **E F**
- *Hart, Edw., Ph. D., Professor of Chemistry, Lafayette College, Easton, Pa. (33). 1885. **C**
- *Hart, Edwin B., Professor of Agricultural Chemistry, University of Wisconsin, Madison, Wis. (58). 1910. **C K**
- Hart, George H., 149 East 39th St., New York, N. Y. (58).
- *Hart, James Norris, Professor of Mathematics and Astronomy, University of Maine, Orono, Me. (51). 1906. **A L**
- Hart, Rev. Samuel, Dean, Berkeley Divinity School, Middletown, Conn. (22). **A**
- Hart, W. O., 134 Carondelet St., New Orleans, La. (58).
- Hart, W. R., Amherst, Mass. (61). **L**
- Harter, Leonard L., U. S. Department of Agriculture, Washington, D. C. (55). **G**
- Hartley, Carl P., U. S. Department of Agriculture, Washington, D. C. (57). **G**
- Hartley, Chas. P., Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C. (51). **G**
- Hartley, Frank, Principal, Allegany County Academy, Cumberland, Md. (51). **E G**
- Hartline, Daniel S., State Normal School, Bloomsburg, Pa. (54). **F G**
- Hartman, Miss F. T., care State Entomologist, Geological Hall, Albany, N. Y. (58). **F**
- *Hartman, Leon Wilson, Ph. D., 34 West 9th St., Reno, Nevada. (58). 1910. **B**
- Hartmann, Francis M., Professor of Physics, Cooper Union, New York, N. Y. (56). **B D**

MEMBERS AND FELLOWS

- Hartmann-Kempf, Robert E., Ph. D., care Hartmann & Braun, Frankfurt-on-Main, Germany. (54). **BD**
- Hartnagle, Chris. A., State Museum, Albany, N. Y. (61). **E**
- Hartness, James, President, Jones & Lamson Machine Co., Springfield, Vt. (51). **D**
- Hartwell, Burt Laws, Ph. D., Rhode Island Agricultural Experiment Station, Kingston, R. I. (55). **CG**
- Hartwell, George Wilber, Hamline University, St. Paul, Minn. (58). **A**
- *Hartwell, John A., M. D., 50 East 53d St., New York, N. Y. (57). 1908. **K**
- Hartz, Henry J., M. D., 27 Adams Ave. East, Detroit, Mich. (58). **K**
- Hartz, J. D. Aug., 315 13th St., College Point, N. Y. (43). **CEG**
- Hartzell, Frederick Z., Chautauqua Exper. Vineyard, Fredonia, N. Y. (58). **FG**
- Hartzell, Joseph Culver, Ph. D., Professor of Geology and Chemistry, University of the Pacific, San José, Cal. (49). **E**
- Hartzell, Mabel A., Sinton, Tex. (58). **C**
- Harvey, Basil C. H., Assistant Professor of Anatomy, University of Chicago, Chicago, Ill. (58). **FK**
- Harvey, E. Newton, 236 West Horter St., Germantown, Pa. (58). **K**
- Harvey, Le Roy Harris, State Normal School, Kalamazoo, Mich. (54). **G**
- Harvey, Nathan Albert, Ph. D., 223 Summit St., Ypsilanti, Mich. (52). **L**
- Harvey, Ruth Sawyer, Ph. D., 1623 Poplar St., Philadelphia, Pa. (60). **E**
- Harvey, Wm. Stocker, 119 South 4th St., Philadelphia, Pa. (47).
- Haseman, Charles, Ph. D., Reno, Nev. (58). **ABD**
- Haseman, Leonard, Assistant in Entomology, Cornell University, Ithaca, N. Y. (60). **F**
- *Haskell, Eugene Elwin, Director, College of Civil Engineering, Cornell University, Ithaca, N. Y. (39). 1896. **ABD**
- *Haskell, Mellen Woodman, Professor of Mathematics, University of California, Berkeley, Cal. (54). 1906. **AL**
- *Haskins, Charles Nelson, 46 South Main St., Hanover, N. H. (60). 1910. **A**
- Haskins, Henri D., Massachusetts Agricultural Experiment Station, Amherst, Mass. (60). **C**
- Haslam, George James, M. D., 77 West 6th St., Fremont, Nebr. (54). **K**
- Hasselbring, Heinrich, Ph. D., U. S. Dept. of Agriculture, Washington, D. C. (61). **G**
- Hasslacher, Jacob, 100 William St., New York, N. Y. (50). **C**
- *HASTINGS, CHARLES SHELDON, Ph. D., Professor of Physics, Sheffield Scientific School, Yale University, New Haven, Conn. (25). 1878. **B**
- *Hastings, Edwin George, Associate Professor of Bacteriology, University of Wisconsin, Madison, Wis. (50). 1910. **CK**
- *Hastings, Thomas Wood, M. D., 43 East 58th St., New York, N. Y. (57). 1909. **KL**
- Hastings, William Walter, Ph. D., 23 Jackson St., Springfield, Mass. (54). **HK**

- Hately, John C., Chicago Beach Hotel, Chicago, Ill. (58).
- *Hathaway, Arthur Stafford, Professor of Mathematics, Rose Polytechnic Institute, Terre Haute, Ind. (58). 1908. **A B C D**
- Hathaway, Horatio, Jr., Dedham, Mass. (60).
- Hatt, Wm. Kendrick, Ph. D., Professor of Civil Engineering, Purdue University, Lafayette, Ind. (57). **D**
- *Haupt, Professor Lewis Muhlenburg, C. E., 107 North 35th St., Philadelphia, Pa. (51). 1903. **D**
- Haupt, Louis, M. D., 232 East 19th St., New York, N. Y. (60). **K**
- Havemeyer, W. F., 32 Nassau St., New York, N. Y. (50).
- Haven, William Ingraham, D. D., 25 Fernwood Road, Summit, N. J. (58). **E H I K**
- Havenhill, L. D., Lawrence, Kans. (60). **C**
- Havens, Verne LeRoy, C. E., 4a Puento de Alvarado No. 92, Mexico, D. F., Mexico. (60). **D**
- Hawes, Joseph H., 40 Fairmount St., Dorchester Center, Mass. (58). **B D**
- *Hawk, Philip Bovier, Ph. D., Professor of Physiological Chemistry, University of Illinois, Urbana, Ill. (58). 1910. **C K**
- Hawkes, Forbes, M. D., 42 East 26th St., New York, N. Y. (60). **K**
- Hawkesworth, Rev. Alan Spencer, R. S. A., Professor of Higher Mathematics, University of Pittsburg, Pittsburg, Pa. (58). **A**
- Hawkins, John Dawson, Colorado Springs, Colo. (50). **C D**
- Hawkins, Layton S., Cortland Normal School, Cortland, N. Y. (57). **G L**
- Hawkins, Lon A., Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C. (58). **G**
- *Haworth, Erasmus, Professor of Geology, University of Kansas, Lawrence, Kans. (58). 1910. **E**
- Hawxhurst, Robert, Jr., C. E., General Manager, Poderosa Mining Co., Antofagasta, Chile, S. A. (53). **D**
- *Hay, Oliver Perry, Ph. D., 1307 Riggs St. N. W., Washington, D. C. (49). 1901. **E F**
- *Hay, Prof. William P., Business High School, Washington, D. C. (49). 1907. **F**
- Hayden, Horace Edwin, Jr., 41 West Lawn, University, Va. (58). **F G**
- Hayden, Wm. B., Catskill, N. Y. (57).
- Hayes, Rev. Chas. H., Chelsea Square, New York, N. Y. (60). **H**
- *Hayes, Charles Willard, U. S. Geological Survey, Washington, D. C. (51). 1905. **E**
- *Hayes, Ellen, Professor of Astronomy, Wellesley College, Wellesley, Mass. (52). 1905. **A**
- Hayes, F. Eugene, Jr., C. E. 1504 South First St., Louisville, Ky. (60). **D**
- Hayes, George Samuel, C. E., 1123 Broadway, New York, N. Y. (60). **D**
- Hayes, George Washington, C. E., Professor of Chemistry, Pennsylvania Chautauqua, Lebanon, Pa. (51). **B C D E**

MEMBERS AND FELLOWS.

- Hayes, Henry Wilde, C. E., 24 Gray St., Arlington, Mass. (60). **D**
- Hayes, Herbert Kendall, Bussey Institution, Forest Hills, Boston, Mass. (61). **G**
- Hayes, Joel Addison, 832 Cascade Ave., Colorado Springs, Colo. (51).
- *Hayford, John Fillmore, C. E., Director, College of Engineering, Northwestern University, Evanston, Ill. (46). 1898. **A B D**
- Hayhurst, Paul, College of Agriculture, Fayetteville, Ark. (58). **F**
- *Haynes, Arthur Edwin, Professor of Engineering Mathematics, University of Minnesota, Minneapolis, Minn. (45). 1909. **A D L**
- Haynes, Eli Stuart, Laws Observatory, University of Missouri, Columbia, Mo. (60). **A**
- *Haynes, Prof. Henry Williamson, 239 Beacon St., Boston, Mass. (28). 1884. **H**
- Haynes, Miss Julia Anna, State Normal School, Hyannis, Mass. (47)
F G K
- Haynes, Winthrop Perrin, 74 Beacon St., Hyde Park, Mass. (60).
- Hays, B. Frank, Secretary, Fraser Tablet Co., 150 Bay 32d St., Bensonhurst, N. Y. (49).
- Hays, John Coffee, E. E., Visalia, Cal. (58). **D**
- *Hays, Hon. Willet M., Assistant Secretary, U. S. Department of Agriculture, Washington, D. C. (45). 1901. **G I L**
- Hays, William Henry, Superintendent, Public Schools, Lock Box 323, Columbia, Mo. (58). **A**
- Hayward, Robert Francis, C. E., 319 Pender St. West., Vancouver, B. C. (60). **D**
- *Hazard, Daniel Lyman, U. S. Coast and Geodetic Survey, Washington, D. C. (48). 1910. **B**
- Hazard, Elmer Clarke, Ph. D., M. D., Shrewsbury, N. J. (56). **C K**
- *Hazard, Hon. Rowland Gibson, Peace Dale, R. I. (50). 1906.
- *Hazen, Tracy Elliot, Ph. D., Barnard College, Columbia University, New York, N. Y. (50). 1902. **G**
- Headlee, Thomas J., Ph. D., Kansas State Agricultural College, Manhattan, Kans. (52). **F**
- *Heald, Frederick DeForest, Ph. D., University of Texas, Austin, Tex. (50). 1904. **G**
- Heaps, William James, 310 West Hoffman St., Baltimore, Md. (60). **C**
- Hearne, Robert Joseph, M. E., 12 Wooster St., New York, N. Y. (58). **D**
- Heath, Harry E., care Gen. Elect. Co., 99 Leighton St., Lynn, Mass. (50). **D**
- Hebbard, Ellery Cola, M. D., 122 Huntington Ave., Boston, Mass. (51).
D K
- Hebert, P., M. D., 313 Stephenson Ave., Iron Mountain, Mich. (60). **K**
- *Hedgcock, George Grant, Ph. D., Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C. (50). 1904. **G**
- Hedge, Frederic H., 440 Boylston St., Brookline, Mass. (28). **F H**
- Hedrich, U. P., Geneva, N. Y. (60). **G**

- *Hedrick, Earle Raymond, Professor of Mathematics, University of Missouri, Columbia, Mo. (58). 1908. **A**
- *Hedrick, Henry Benjamin, Yale University, New Haven, Conn. (40). 1896. **A**
- Hedrick, William A., McKinley Manual Training School, Washington, D. C. (60). **A B**
- Heermance, E. Van Ness, President, Virginia Concrete and Engineering Company, Rocky Mount, Va. (60). **C E**
- Heffron, John L., M. D., 528 South Salina St., Syracuse, N. Y. (60). **K**
- Heidemann, Otto, 1333 Park Road, Washington, D. C. (58). **F**
- Heike, Chas. Rudolph, 117 Wall St., New York, N. Y. (57).
- Heimann, Julius, 315 West 105th St., New York, N. Y. (57).
- Heinemann, Paul Gustav, Ph. D., Assistant in Bacteriology, University of Chicago, Chicago, Ill. (58).
- Heiney, William M., Principal, Ligonier High School, Ligonier, Ind. (58). **L**
- Heinrich, Richard O., E. E., Ritterstrasse 88, S. 42, Berlin, Germany. (60). **D**
- Heinze, Arthur P., Vice-President, United Copper Co., 220 Madison Ave., New York, N. Y. (57).
- Heisler, Chas. L., M. E., North Main St., St. Mary's, Ohio. (51). **D**
- Heisler, John C., M. D., 3829 Walnut St., Philadelphia, Pa. (60). **K**
- *Hektoen, Ludvig, M. D., Professor of Pathology, University of Chicago, Chicago, Ill. (52). 1906. **K**
- Helland, John W., M. D., Maynard, Minn. (60). **K**
- Hellebrandt, F. J., 2327 South Albany Ave., Chicago, Ill. (58).
- Heller, Napoleon Bonaparte, Ph. D., Professor of Mathematics, Temple University, Philadelphia, Pa. (58). **A B**
- Hellick, Chauncey Graham, Ph. D., Department of Electrical Engineering, Lafayette College, Easton, Pa. (50). **B D**
- Hemenway, Miss Clara, 242 Beacon St., Boston, Mass. (61).
- Hemingway, Frank, 133 Front St., New York, N. Y. (60). **C**
- *Hemmeter, John C., M. D., Professor of Physiology, University of Maryland, Baltimore, Md. (51). 1906. **K L**
- Hempelmann, Walter L., 2921 University St., St. Louis, Mo. (60). **C**
- *Henchman, Miss Annie Parker, 10 Prescott Hall, Cambridge, Mass. (54). 1906. **F**
- Henderson, C. Hanford, Ph. D., 33 Kirkland St., Cambridge, Mass. (61). **E I L**
- Henderson, George Dallas, M. D., 276 Maple St., Holyoke, Mass. (60). **K**
- Henderson, John Brooks, Jr., 16th St. above Florida Ave., Washington, D. C. (60).
- *Henderson, Junius, Curator of the Museum, University of Colorado, Boulder, Colo. (50). 1906. **E F**
- Henderson, Royal L., 623 Jefferson Ave., Richmond Hill, N. Y. (57). **F G**
- Henderson, Veljien E., University of Toronto, Toronto, Can. (60). **K**

MEMBERS AND FELLOWS.

- *Henderson, William Edward, Ph. D., Associate Professor of Chemistry, Ohio State University, Columbus, Ohio. (50). 1901. **C**
- *Henderson, Yandell, Ph. D., Assistant Professor of Physiology, Yale University Medical School, New Haven, Conn. (57). 1908. **K**
- Hendrick, Edward L., Sterling, Ill. (58). **B**
- Hendrick, Ellwood, 139 East 40th St., New York, N. Y. (57). **C**
- Henius, Max, Ph. D., 1135 Fullerton Ave., Chicago, Ill. (52). **CL**
- Henkel, Mary Isabel, 174 27th St., Milwaukee, Wis. (60). **C**
- *Henmon, Vivian A. C., Ph. D., University of Colorado, Boulder, Colo. (54). 1906. **HL**
- Hennen, Ray Vernon, C. E., P. O. Box 386, Morgantown, W. Va. (50). **D**
- Henning, Gus C., 413 Convent Ave., New York, N. Y. (57). **BDE**
- Henrich, Carl, E. M., Manager, Mineral Development Co., Apartado 52, Guanajuato, Mexico. (50). **AEI**
- Henricksen, Prof. H. C., P. O. Box 1007, Havana, Cuba. (60). **CFG**
- Henriques, Henry A., M. D., 170 South St., Morristown, N. J. (60). **K**
- *Henry, Alfred Judson, Professor of Meteorology, Mt. Weather Observatory, Bluemont, Va. (49). 1901. **B**
- Henry, Charles C., M. D., 56 Clark St., Brooklyn, N. Y. (43). **K**
- Henry, John P., M. D., 329 West 58th St., New York, N. Y. (60). **K**
- Henry, Stewart L., M. D., 908 South Carrollton Ave., Station B, New Orleans, La. (55). **GK**
- Henshaw, Henry Wetherbee, Chief, Biological Survey, U. S. Department of Agriculture, Washington, D. C. (55). **FH**
- Henslin, Aaron E., M. D., Le Roy, Minn. (60). **K**
- Herb, Arthur, M. E., 1443 South Third St., Louisville, Ky. (58). **D**
- *Hering, Daniel Webster, Ph. D., Professor of Physics, New York University, New York, N. Y. (50). 1906. **BD**
- *Hering, Rudolph, 170 Broadway, New York, N. Y. (33). 1885. **DEI**
- Herrmann, Ferdinand, 20 East 80th St., New York, N. Y. (57).
- Herns, Edward, Portsmouth, Ohio. (58). **C**
- Herns, Wm. Brodbeck, Assistant Professor of Entomology, University of California Berkeley, Cal. (57). **F**
- Herr, Hiero B., C. E., M. E., Monadnock Block, Chicago, Ill. (50). **DE**
- *Herrick, Charles Judson, Ph. D., Professor of Neurology, University of Chicago, Chicago, Ill. (49). 1901. **F**
- *Herrick, Francis Hobart, Ph. D., Professor of Biology, Adelbert College Cleveland, Ohio. (52). 1905. **F**
- Herrick, Glenn W., College Station, Tex. (50). **F**
- Herrick, Jos. C., Ph. D., Professor of Biology, St. Joseph's Seminary, Yonkers, N. Y. (56). **HK**
- HERRMAN, MRS. ESTHER, 59 West 56th St., New York, N. Y. (29).
- *Herrmann, Richard, 2419 Conler Ave., Dubuque, Iowa. (50). 1902. **EFH**
- Herron, William Harrison, U. S. Geological Survey, Washington, D. C. (52). **DEI**
- Hersam, Ernest A., E. M., University of California, Berkeley, Cal. (60). **D**

- *Herter, Christian A., M. D., 819 Madison Ave., New York, N. Y. (50).
1902. **F K**
- *Herty, Charles Holmes, Ph. D., University of North Carolina, Chapel Hill,
N. C. (42). 1895. **C**
- Hertzler, Arthur E., Ph. D., 402 Argyle Building, Kansas City, Mo.
(58). **K**
- Hertzog, P. H., Assistant to State Zoologist, Harrisburg, Pa. (57). **F**
- *Hervey, Rev. Alpheus Baker, Ph. D., Bath, Me. (22). 1879. **A G**
- Herzig, Charles S., E. M., 4 Copthall Ave., London, E. C., England.
(60). **D**
- Herzog, Felix Benedict, Ph. D., President, Herzog Teleseme Co., 137 West
23d St., New York, N. Y. (50). **D**
- *Herzog, Maximilian, M. D., 103 East Randolph St., Chicago, Ill. (58).
1909. **H K**
- Herzstein, Morris, M. D., 1404 Sutter St., San Francisco, Cal. (52). **K**
- Hess, Emory Le Roy, St. Vincent's Hospital, Toledo, Ohio. (60).
- Hess, Frederick Andrew, M. D., Ph. D., 247 East Division St., Chicago,
Ill. (58). **K**
- Hess, Henry, M. E., 2300 Green St., Philadelphia, Pa. (60). **D**
- Hess, Henry W., The Libbey Glass Co., Toledo, Ohio. (60). **C**
- Hess, Selmar, Publisher, 956 Madison Ave., New York, N. Y. (53). **I K L**
- *Hesse, Bernard C., 90 William St., New York, N. Y. (60). 1910. **C**
- Hesse, Conrad E., U. S. Weather Bureau, Washington, D. C. (50). **D**
- *Hessler, John Charles, Professor of Chemistry, James Millikin University,
Decatur, Ill. (58). 1910. **C**
- *Hessler, Robert, M. D., Logansport, Ind. (54). 1909. **G H K**
- Heuel, Emil, M. D., 144 West 79th St., New York, N. Y. (60). **K**
- Heuer, George J., M. D., Johns Hopkins Hospital, Baltimore, Md. (60). **K**
- Hewerdine, Thomas Sloan, Fisher, Ill. (58). **A B C D**
- *Hewett, Edgar L., Director, School of American Archaeology, Santa Fe,
N. M. (50). 1910. **H**
- Hewins, Nellie P., Clermont Terrace, Elmhurst, L. I., N. Y. (60). **K**
- Hewitt, C. Gordon, Central Experiment Farm, Ottawa, Canada. (60). **F**
- Hewitt, Joseph H., M. D., University of Minnesota, Minneapolis, Minn.
(60). **K**
- Hewitt, Thomas Edwin, E. M., 331 Atwood St., Pittsburg, Pa. (56).
C D
- Hewson, Addinell, M. D., 2120 Spruce St., Philadelphia, Pa. (60). **K**
- HEXAMER, C. JOHN, C. E., 419 Walnut St., Philadelphia, Pa. (33).
B C
- Heyer, Wm. D., 523 South Broad St., Elizabeth, N. J. (33). **B D L**
- Heyl, Paul Renno, Ph. D., Assistant Professor of Physics, Central High
School, Philadelphia, Pa. (54). **B**
- Hibbard, Rufus P., Ph. D., Station Bacteriologist and Pathologist, Agri-
cultural College, Miss. (54). **G K**
- Hibbard, Walter Rollo, care Pennsylvania Military College, Chester, Pa.
(58). **C E**

MEMBERS AND FELLOWS.

- *Hice, Richard R., Beaver, Pa. (41). 1906. **A B C E**
 Hick, L. A., M. D., Delta, Colo. (60). **K**
 Hickey, Preston M., M. D., 32 Adams Ave., W., Detroit, Mich. (60). **K**
 Hicks, Edwin Francis, 4837 Fairmount Ave., Philadelphia, Pa. (58). **C**
 Hickson, William James, M. D., 5173 Penn Ave., Pittsburg, Pa. (60). **K**
 Hidershide, George N., M. D., Arcadia, Wis. (58). **K**
 Higbee, Frederick Goodson, 104 Engineering Hall, Iowa City, Iowa. (58). **D**
 Higbee, George G., E. M., Murray Iron Works Co., Burlington, Iowa. (60). **D**
- *Higdon, John E., Teacher of Mathematics, Shortridge High School, Indianapolis, Ind. (54). 1906. **A B D K**
 Higgins, Daniel Franklin, Northwestern University, Evanston, Ill. (61). **E**
 Higgins, Herman K., C. E., 9 Elm Lawn, Dorchester, Mass. (60). **D**
 Higgins, J. Edgar, Hawaiian Experiment Station, Box 677, Honolulu, Hawaii. (57). **G**
 Higgins, James Haydn, M. D., Marstons Mills, Mass. (60). **K**
 Higgins, Lafayette, C. E., Professor of Chemistry, West Des Moines High School, Des Moines, Iowa. (51). **C D**
 Higginson, Henry L., care Lee Higginson and Company, 44 State St., Boston, Mass. (60).
 Hilbert, Alfred, E. E., 218 East 111th St., New York, N. Y. (60). **D**
 Hildebrandt, Theophil Henry, 920 Monroe St., Ann Arbor, Mich. (58).
- A**
 Hilditch, Warren W., Bowne Hall of Chemistry, Syracuse, N. Y. (60). **C**
 Hildreth, Percy Stearns, 181 West 75th St., New York, N. Y. (57). **D E**
 Hileman, Allen Irving, R. F. D. 2, Paxton, Ill. (61). **G L**
- *Hilgard, Eugene Woldemar, Ph. D., Dean and Director, College of Agriculture, University of California, Berkeley, Cal. (11). 1874. **B C E**
 Hill, Albert Frederick, 192 South Main St., Attleboro, Mass. (61). **G**
 *Hill, Albert Ross, Ph. D., President, University of Missouri, Columbia, Mo. (58). 1910. **H L**
 Hill, Arthur E., 66 Clinton Place, Bronx, New York, N. Y. (58). **C**
 Hill, David Spence, Ph. D., 45 Rutledge St., Nashville, Tenn. (60). **H**
 *Hill, Eben Clayton,.....(54). 1906. **K**
 Hill, Edwin Allston, Ph. D., Assistant Professor of Chemistry, George Washington University, Washington, D. C. (52). **C D**
 Hill, Herbert M., University of Buffalo, Buffalo, N. Y. (58). **B C**
 *Hill, John Edward, Professor of Civil Engineering, Brown University, Providence, R. I. (44). 1897. **D**
 Hill, Joseph H., D. D., LL. D., President, Kansas State Normal Schools, Emporia, Kan. (61). **L**
- *Hill, Lewis D., Normal College, 68th St. and Park Ave., New York, N. Y. (58). 1910. **B C**
 *Hill, Robert Thomas, Trinity Building, New York, N. Y. (36). 1889. **E**
 Hill, Wm. K., Carthage College, Carthage, Ill. (54). **G**

- *Hillebrand, William Francis, Ph. D., Bureau of Standards, Washington D. C. (51). 1903. **C**
- Hillig, Frederick J., S. J., St. John's College, Toledo, Ohio. (50). **BH**
- Hills, Alfred Kimball, M. D., 541 West End Ave., New York, N. Y. (57). **K**
- Hills, Professor Thomas McDougall, 6 Tufford Arms, Toledo, Ohio. (61). **E**
- Hilpert, Willis S., Ph. D., 543 East 34th St., Chicago, Ill. (58). **CK**
- *Hilprecht, Hermann Vollrat, Ph. D., D. D., LL. D., Clark Research Professor of Assyriology, and Professor of Semetic Philology and Archaeology, University of Pennsylvania, Philadelphia, Pa. (54). 1906.
- Hiltebeitel, Adam Miller, Ph. D., Trappe, Pa. (58). **A**
- Hilton, David Clark, M. D., 1240 O St., Lincoln, Nebr. (58). **FK**
- *Hilton, William Atwood, Ph. D., 108 Brandon Place, Ithaca, N. Y. (49). 1906. **FHK**
- *Himes, Prof. Charles F., Carlisle, Pa. (29). 1882. **BC**
- *Himowich, Adolph A., M. D., 130 Henry St., Manhattan, N. Y. (51). 1906. **AK**
- Hinchman, Mrs. Lydia S., 3635 Chestnut St., Philadelphia, Pa. (57). **AE**
- Hindle, Edward, Quick Laboratory, Cambridge, England. (61). **F**
- Hinds, Franklin Allen, C. E., Watertown, N. Y. (57). **ADE**
- *Hinds, John I. D., Ph. D., Peabody College, Nashville, Tenn. (55). 1908. **C**
- *Hinds, Warren Elmer, Ph. D., Professor of Entomology, Alabama Polytechnic Institute, Auburn, Ala. (54). 1906. **FL**
- Hindshaw, Henry Havelock, care The Solvay Process Co., Syracuse, N. Y. (52). **E**
- *Hine, James Stewart, Associate Professor of Zoology and Entomology, Ohio State University, Columbus, Ohio. (48). 1904. **F**
- Hines, Murray Arnold, 2320 Orrington Ave., Evanston, Ill. (60). **C**
- Hinkel, Frank Whitehill, M. D., 581 Delaware Ave., Buffalo, N. Y. (60). **K**
- Hinkins, John Edward, M. D., 1526 East 53d St., Chicago, Ill. (58). **C**
- Hinkle, Beatrice M., M. D., Manila, P. I. (60). **K**
- Hinnen, Gustave A., M. D., 212 Fosdick St., Mt. Auburn, Cincinnati, Ohio. (60). **K**
- *Hinrichs, Gustavus Detlef, M. D., Professor of Chemistry, 4106 Shenandoah Ave., St. Louis, Mo. (17). 1874. **BC**
- *Hinsdale, Wilbert B., M. D., University of Michigan, Ann Arbor, Mich. (54). 1909. **HK**
- Hinton, George B., care Richard Barry, Choix, Sinaloa, Mexico. (58). **C**
- Hinton, William Augustus, Jr., 52 Fenwood Road, Roxbury, Mass. (60). **C**
- *Hirschfelder, Arthur D., M. D., 2243 Linden Ave., Baltimore, Md. (60). 1910. **K**
- *Hirschfelder, Jos. Oakland, M. D., Professor of Clinical Medicine, Cooper Medical College, San Francisco, Cal. (51). 1909. **K**

MEMBERS AND FELLOWS.

- Hirshberg, Leonard Keene, M. D., 1937 Madison Ave., Baltimore, Md. (60). **K**
- Hirshfeld, Clarence Floyd, Professor of Power Engineering, Cornell University, Ithaca, N. Y. (54). **BCD**
- Hiss, Philip Hanson, M. D., 437 West 59th St., New York, N. Y. (49). 1903. **FK**
- Hitch, Miss Lola S., Palmyra, N. J. (61).
- *Hitchcock, Albert Spear, Division of Agrostology, U. S. Department of Agriculture, Washington, D. C. (39). 1892. **G**
- Hitchcock, Miss Caroline Judson, Teacher in High School, Meriden, Conn. (50). **BEG**
- *HITCHCOCK, CHARLES HENRY, LL. D., Honolulu, Hawaii. (11). 1874. **E**
- *Hitchcock, Miss Fanny R. M., 4038 Walnut St., Philadelphia, Pa. (35). 1906. **F**
- *Hitchcock, Hon. Frank Harris, Postmaster-General, Metropolitan Club, Washington, D. C. (49). 1901. **I**
- *Hitchcock, Romyn, P. O. Box 1765, New York, N. Y. (47). 1898. **CI**
- *Hitchens, Arthur Parker, M. D., Bacteriologist, Glen Olden, Pa. (58). 1909. **K**
- Hitchings, Edson Forbes, Waterville, Me. (60). **K**
- Hite, Bert Holmes, Morgantown, W. Va. (60). **C**
- Hite, Lewis Field, 22 Mt. Pleasant St., Cambridge, Mass. (58). **HL**
- *Hitzrot, James Morley, M. D., 126 East 37th St., New York, N. Y. (57). 1909. **K**
- Hoad, William Christian, Associate Professor of Civil Engineering, University of Kansas, Lawrence, Kans. (54). **D**
- *Hoadley, George Arthur, Professor of Physics, Swarthmore College, Swarthmore, Pa. (40). 1900. **B**
- Hoaland, Ralph, Professor of Soils, University of Minnesota, Minneapolis, Minn. (53). **C**
- Hobble, Arthur Casson, E. E., Rushville, Illinois. (60). **D**
- Hobbs, Prof. Perry L., 2047 East 9th St., Cleveland, Ohio. (41). **C**
- *Hobbs, William Herbert, Ph. D., Professor of Geology, University of Michigan, Ann Arbor, Mich. (41). 1893. **E**
- Hobby, C. M., M. D., Iowa City, Iowa. (51). **K**
- Hoch, August, Psychiatric Institute, Ward's Island, New York, N. Y. (60). **K**
- *Hodge, Clifton Fremont, Ph. D., Professor of Biology, Clark University Worcester, Mass. (58). 1910. **FGKL**
- *Hodge, Frederick Humbert, Professor of Mathematics, Parsons College, Fairfield, Iowa. (50). 1908. **A**
- *Hodge, Frederick Webb, Bureau of American Ethnology, Smithsonian Institution, Washington, D. C. (52). 1904. **H**
- Hodge, James M., Big Stone Gap, Va. (29). **DE**
- Hodges, Robert Shattuck, Chemist, Alabama Geological Survey, University, Ala. (54). **CE**

- *Hodgkins, Prof. Howard Lincoln, George Washington University, Washington, D. C. (40). 1896. **A B D**
- Hodgkins, William Candler, U. S. Coast and Geodetic Survey, Washington, D. C. (52). **A D E**
- HOE, MRS. R., JR., 11 East 36th St., New York, N. Y. (36).
- Hoe, Mrs. Richard M., 11 East 71st St., New York, N. Y. (36). **L**
- Hoen, Albert Berthold, Dixon Park, Mt. Washington, Md. (60). **E**
- Hoff, Olaf, C. E., 149 Broadway, New York, N. Y. (57). **D**
- Hoffman, Arthur Henry, Assistant Professor of Physics, Iowa State College, Ames, Iowa. (58). **B D L**
- Hoffman, Christian B., Enterprise, Kan. (50). **D H**
- *Hoffman, Frank Sargent, Ph. D., Professor of Philosophy, Union University, Schenectady, N. Y. (52). 1906. **H I**
- Hoffman, Geo. Edgar, "Longcliff," Logansport, Ind. (57). **K**
- *Hoffman, Samuel V., Morristown, N. J. (52). 1906. **A D**
- Hoffmann, Conrad, Experiment Station, University of Wisconsin, Madison, Wis. (57). **K**
- *HOFFMANN, DR. FRIEDRICH, Charlottenburg, Kant St. 125, Berlin, Germany. (28). 1881. **C F**
- Hofstetter, George A., M. D., 108 South Beaton St., Corsicana, Tex. (58). **K**
- Hogan, Edgar Poe, Professor of Chemistry and Biology, Howard College, East Lake, Ala. (54). **C F**
- Hogan, Mrs. Louise E., Lock Box 337, Philadelphia, Pa. (52). **B D H I K L**
- Hogrefe, Louis, Patton Paint Co., Milwaukee, Wis. (58). **A B C D E**
- Hohf, Julian A., M. D., Tripp, S. D. (60). **K**
- Holbrook, Percy, 29 West 34th St., New York, N. Y. (51). **D**
- HOLDEN, MRS. L. E., The Hollenden, Cleveland, Ohio. (35).
- Holden, Roy Jay, E. M., Blacksburg, Va. (60). **D**
- Holder, Francis J., Professor of Mathematics, Colby College, Waterville, Me. (61). **A**
- Holding, Arthur, M. D., 98 Chestnut St., Albany, N. Y. (58). **K**
- *Holferty, George Mellinger, Ph. D., Instructor in Botany, Central High School, St. Louis, Mo. (50). 1905. **E G**
- Holgate, Henry, C. E., 44 Rosemont Ave., Montreal, Canada. (60). **D**
- *Holgate, Thomas Franklin, Ph. D., 617 Library St., Evanston, Ill. (58). 1910. **A L**
- Holladay, Lewis Littlepage, E. E., University of Virginia, Charlottesville, Va. (58). **D**
- Holland, Arthur L., M. D., 134 West 81st St., New York, N. Y. (60). **K**
- Holland, Robert A., M. D., Calais, Me. (60). **K**
- *Holland, William Jacob, Ph. D., LL. D., Director, Carnegie Museum, Pittsburg, Pa. (37). 1896. **E F G H L**
- Holland, William West, Ph. D., 1122 Madison Ave., Baltimore, Md. (58). **C**
- *Hollick, Charles Arthur, Ph. D., Curator, Department of Fossil Botany, New York Botanical Garden, New York, N. Y. (31). 1892. **E G**

MEMBERS AND FELLOWS.

- Hollingworth, H. L., Ph. D., Columbia University, New York, N. Y. (61).
- Hollinshead, Warren H., Wimgrove Ave., Nashville, Tenn. (37).
- Hollis, Frederic S., 90 Erie Ave., Newton Highlands, Mass. (60). **C**
- Hollister, Frank Canfield, M. D., 264 West 77th St., New York, N. Y. (57). **K**
- Hollister, N., U. S. National Museum, Washington, D. C. (57). **F**
- Holman, Carl, Presque Isle, Me. (61). **F**
- Holman, Carl J., M. D., Mankato, Minn. (60). **K**
- Holman, Richard Morris, care Bureau of Education, Manila, P. I. (55). **G**
- Holmes, A. Mansfield, M. D.,(50). **FK**
- Holmes, Edgar Miller, M. D., 531 Beacon St., Boston, Mass. (60). **K**
- Holmes, Ella A., 4 John St., Jamaica, N. Y. (60). **F**
- *Holmes, Joseph A., U. S. Geological Survey, Washington, D. C. (33). 1887. **DE**
- Holmes, Manfred James, Professor of Psychology, Normal, Ill. (58). **HL**
- Holmes, Mary E., Mt. Holyoke College, South Hadley, Mass. (60). **C**
- Holmes, Miss Mary S., 147 Manheim St., Philadelphia, Pa. (50). **E**
- *Holmes, Samuel Jackson, Ph. D., Assistant Professor of Zoology, University of Wisconsin, Madison, Wis. (51). 1904. **F**
- *Holmes, Wm. H., Head Curator of Anthropology, U. S. National Museum, Washington, D. C. (30). 1883. **H**
- Holsinger, S. J., Sunshine Station, Meteor, Ariz. (58). **AH**
- Holstein, George Wolf, R. F. D. No. 1, Abilene, Tex. (28). **EH**
- Holt, Byron W., 54 Broad St., New York, N. Y. (60). **I**
- Holt, Erastus Eugene, M. D., 723 Congress St., Portland, Me. (54). **IKL**
- *Holt, Henry, 34 West 33d St., New York, N. Y. (29). 1908. **I**
- Holt, Joseph H., M. D., Sherman, Tex. (60). **K**
- Holtgrewe, Frederick W., 1601 Blair Ave., St. Louis, Mo. (60). **K**
- *Holton, Henry D., M. D., Brattleboro, Vt. (44). 1909. **I**
- Holtz, Frederick L., 1083a Prospect Place, Brooklyn, N. Y. (58). **EFGI**
- *Holzinger, John M., Professor of Botany, State Normal School, Winona, Minn. (54). 1909. **G**
- Homans, John, M. D., 164 Beacon St., Boston, Mass. (60). **K**
- Homburg, Frederick, Teacher of Chemistry, Woodward High School, Cincinnati, Ohio. (51). **CE**
- Homer, Charles S., care Valentine & Co., 257 Broadway, New York, N. Y. (29).
- Homer, Harry L., M. D., Union Protestant Infirmary, Baltimore, Md. (60). **K**
- Honey, William, E. E., Tequisquiapan, Queretaro, Mexico. (58). **D**
- Hood, Edward C., 50 Hawthorne St., Flushing, L. I., N. Y. (60). **F**
- *Hood, Ozni Porter, Professor of Mechanical and Electrical Engineering, Michigan School of Mines, Houghton, Mich. (51). 1906. **D**
- Hood, William, Room 1136, James Flood Building, San Francisco, Cal. (35). **D**

- Hooker, Charles Worcester, R. F. D. No. 3, Grand Rapids, Wis. (60). **F**
- Hooker, Davenport, Yale University, New Haven, Conn. (52). **F K**
- *Hooker, Donald Russell, M. D., "Cedar Lawn," Homeland Ave., Baltimore, Md. (50). 1907. **K**
- Hooker, William A., Office of Experiment Stations, U. S. Dept. of Agriculture, Washington, D. C. (54). **F**
- Hooper, Everett D., M. D., Ph. D., Warren Chambers, Boston, Mass. (57). **C K**
- Hooper, Prof. Franklin W., Curator, Brooklyn Institute of Arts and Sciences, Brooklyn, N. Y. (43).
- Hooper, William L., Tufts College, Mass. (60).
- Hoopes, Homer E., 302 South Orange St., Media, Pa. (52). **E H**
- Hoose, James Harmon, Ph. D., Professor of Philosophy, University of Southern California, Los Angeles, Cal. (52). **H K L**
- Hoover, Herbert C., Red House, Hornton St., London, England. (51). **E**
- Hoover, Mrs. Lou Henry, Red House, Hornton St., London, England. (51). **E**
- Hope-Døeg, Harold, E. M., Creston-Colorado Co., Torres, Sonora, Mexico. (60). **D**
- Hopeman, Harry, M. D., Minden, Nebr. (51). **G K**
- *Hopkins, A. D., Ph. D., U. S. Department of Agriculture, Washington, D. C. (42). 1899. **F**
- Hopkins, Anderson Hoyt, Librarian, Carnegie Library, Pittsburg, Pa. (52).
- *Hopkins, Prof. Arthur John, Amherst College, Amherst, Mass. (44). 1900. **C**
- Hopkins, B. Smith, Waukesha, Wis. (60). **C**
- *Hopkins, Cyril G., Chief in Agronomy and Chemistry, University of Illinois, 1001 South Wright St., Champaign, Ill. (57). 1909. **C**
- Hopkins, George Bates, 52 Broadway, New York, N. Y. (50). **I**
- *Hopkins, Grant Sherman, Cornell University, Ithaca, N. Y. (41). 1900. **F**
- Hopkins, Louis J., Winnetka, Ill. (58). **H I**
- Hopkins, Milton J., M. D., 3558 Lindell Block, St. Louis, Mo. (60). **K**
- *Hopkins, Nevil Monroe, Assistant Professor of Chemistry, George Washington University, Washington, D. C. (48). 1901. **C D**
- Hopkins, Rupert Henry, 103 College Ave., West New Brighton, N. Y. (54). **B**
- Hopkins, Samuel Augustus, M. D., 235 Marlboro St., Boston, Mass. (54). **K**
- *Hopkins, Thomas Cramer, Professor of Geology, Syracuse University, Syracuse, N. Y. (38). 1898. **E**
- Hore, Reginald Edwin, Michigan College of Mines, Houghton, Mich. (58). **C E**
- Hormell, Prof. William G., Ohio Wesleyan University, Delaware, Ohio. (48). **B**

MEMBERS AND FELLOWS.

- Horn, David Wilbur, Lock Box 12, Bryn Mawr, Pa. (58). **C**
- Horn, Frank Churchill, C. E., U. S. Geological Survey, Twin Falls, Idaho. (58). **DE**
- Horn, Wilbur F., Carlisle, Pa. (60). **C**
- Hornblower, Henry, 60 Congress St., Boston, Mass. (60).
- Hornbogen, Alfred W., M. D., Marquette, Mich. (60). **K**
- *Horne, Herman Harrell, Ph. D., Leonia, N. J. (58). 1910. **HL**
- Horne, Perley L., President, Kamehameha Schools, Honolulu, Hawaii. (58). **IL**
- Hornor, Harry Archer, E. E., 102 Hamilton Court, Philadelphia, Pa. (60). **D**
- Hornung, Christian, Professor of Mathematics, Heidelberg University, Tiffin, Ohio. (50). **AD**
- Horsley, J. Shelton, M. D., 303 West Grace St., Richmond, Va. (60). **K**
- Horton, Byron Barnes, Sheffield, Pa. (54). **FG**
- Horton, George M., M. D., Bailey Block, Seattle, Wash. (60). **K**
- *Hortvet, Julius, State Chemist, Old Capitol, St. Paul, Minn. (50). 1906. **C**
- *Hoskins, Leander Miller, Professor of Applied Mathematics, Leland Stanford Junior University, Stanford University, Cal. (54). 1906. **AD**
- *Hoskins, William, 49 Sixth Ave., La Grange, Ill. (34). 1904. **C**
- Hosmer, Sidney, E. E., 39 Boylston St., Boston, Mass. (50). **D**
- Hotchkiss, Henry D., 165 Broadway, New York, N. Y. (57).
- *Hotchkiss, Homer James, Professor of Physics, Drexel Institute, Philadelphia, Pa. (54). 1906. **B**
- Hotchkiss, Lucius Wales, M. D., 59 West 48th St., New York, N. Y. (57). **K**
- Hotchkiss, William Otis, Wisconsin Geological and Natural History Survey, Madison, Wis. (58). **DE**
- Hottenroth, Fred'k W., 981 Prospect Ave., Bronx, New York, N. Y. (57).
- *Hottes, Charles Frederick, Assistant Professor of Botany, University of Illinois, Urbana, Ill. (54). 1909. **G**
- Hough, Garry de N., M. D., 542 County St., New Bedford, Mass. (60). **K**
- Hough, R. H., Assistant Professor of Physics, University of Pennsylvania, Philadelphia, Pa. (60). **BD**
- *Hough, Theodore, Ph. D., Professor of Physiology, University of Virginia, Charlottesville, Va. (51). 1903. **K**
- *Hough, Walter, Ph. D., U. S. National Museum, Washington, D. C. (38). 1890. **H**
- Hough, Prof. Williston S., George Washington University, Washington, D. C. (58). **HL**
- Houghton, Clement S., 60 State St., Boston, Mass. (60).
- Houghton, Clinton Osborne, Newark, Del. (58). **F**
- *Houghton, E. Mark, M. D., 130 Longfellow Ave., Detroit, Mich. (52). 1906. **K**
- Houghton, Harris A., M. D., Bayside, L. I., N. Y. (60). **K**

- *Houser, Gilbert Logan, Ph. D., Professor of Animal Biology, State University of Iowa, Iowa City, Iowa. (50). 1906. **FK**
 Houser, J. S., Ohio Agricultural Experiment Station, Wooster, Ohio. (58). **FG**
- *Hovey, Edmund Otis, Ph. D., Curator of Geology, American Museum of Natural History, New York, N. Y. (36). 1895. **E**
- *Hovey, Rev. Horace Carter, 71 Line St., Newburyport, Mass. (29). 1883. **EH**
- Hoving, Johannes, M. D., Ph. D., 262 Lenox Ave., New York, N. Y. (60). **K**
- Howald, Ferdinand, E. M., 1150 Bryden Road, Columbus, Ohio. (60). **D**
- *Howard, Arthur Day, Ph. D., Professor of Zoology, University of Washington, Seattle, Wash. (57). 1909. **FK**
- Howard, Burton J., 1366 North Carolina Ave. N. E., Washington, D. C. (60). **C**
- Howard, Charles D., Concord, N. H. (60). **C**
- Howard, Charles P., 116 Farmington Ave., Hartford, Conn. (51).
- Howard, Charles T., 635 East Ave., Rochester, N. Y. (58). **DF**
- Howard, Charles W., Chief of Entomological Section, Department of Agriculture, P. O. Box 255, Lourenco Marquez, Portuguese East Africa. (58) **FK**
- *Howard, Prof. Curtis C., 97 Jefferson Ave., Columbus, Ohio. (38). 1892. **C**
- Howard, Harry Turner, 3513 St. Charles Ave., New Orleans, La. (55).
- *Howard, Henry, Chemical Engineer, 36 Amory St., Brookline, Mass. (57). 1908. **C**
- *HOWARD, LELAND O., Ph. D., Cosmos Club, Washington, D. C. (37). 1889. **F**
- Howard, Orson, M. D., Curator of Museum, University of Utah, Salt Lake City, Utah. (50). **FK**
- *Howard, S. Francis, Assistant Professor of Chemistry, Massachusetts Agricultural College, Amherst, Mass. (50). 1901. **BC**
- Howard, Win. Colman, 246 Washington Ave., Brooklyn, N. Y. (57).
- *Howard, William Travis, M. D., Western Reserve Medical College, Cleveland, Ohio. (54). 1906. **K**
- Howat, William Frederick, M. D., 151 So. Holman St., Hammond, Ind. (58). **HKL**
- Howe, Caroline G., 198 Liberty St., Bloomfield, N. J. (61). **FGL**
- *Howe, Charles Sumner, Ph. D., LL. D., President, Case School of Applied Science, Cleveland, Ohio. (34). 1891. **ADL**
- Howe, Clifton D., Ph. D., Instructor in Botany, University of Toronto, Toronto, Ontario, Canada. (57). **G**
- HOWE, ELMER PARKER, P. O. Box 1825, Boston, Mass. (60).
- *Howe, Ernest, Ph. D., 75 Kay St., Newport, R. I. (52). 1906. **DE**
- Howe, Eugene C., Massachusetts Institute of Technology, Boston, Mass. (57). **F**
- Howe, Freeland, Jr., Chemist and Bacteriologist, Norway, Maine. (53). **CEFG**

MEMBERS AND FELLOWS.

- *Howe, Henry Marion, McLean Road, Bedford Station, New York, N. Y. (50). 1901. **D**
- *Howe, Herbert Alonzo, Ph. D., Dean, College of Liberal Arts, University of Denver, University Park, Colo. (50). 1901. **A**
- *Howe, Jas. Lewis, M. D., Ph. D., Washington and Lee University, Lexington, Va. (36). 1888. **C**
- Howe, John Morgan, M. D., 12 West 46th St., New York, N. Y. (50). **K**
- Howe, Malverd A., Professor of Civil Engineering, Rose Polytechnic Institute, Terre Haute, Ind. (58). **D**
- *Howe, Marshall Avery, Ph. D., New York Botanical Garden, Bronx Park, New York, N. Y. (49). 1903. **G**
- Howe, Paul E., Chemistry Building, Urbana, Ill. (58). **CK**
- Howe, Walter Clarke, M. D., 303 Beacon St., Boston, Mass. (60). **K**
- Howe, William Bell White, M. D., Box 12, Hendersonville, N. C. (61). **K**
- *Howell, Edwin Eugene, 612 17th St. N. W., Washington, D. C. (25). 1891. **E**
- Howell, John W., 211 Ballantine Parkway, Newark, N. J. (50).
- Howell, W. L., Room U, Custom House, New Orleans, La. (58). **C**
- *Howell, William Henry, M. D., Ph. D., Professor of Physiology, Johns Hopkins University, Baltimore, Md. (50). 1901. **FK**
- Hoves, C. P., 140 E. 6th St., St. Paul, Minn. (61).
- Hoves, Jarvis M., M. D., Sellersburg, Ind. (60). **K**
- *Howison, George Holmes, LL. D., Professor Emeritus of Philosophy, University of California, Berkeley, Cal. (54). 1908. **AHIL**
- Howland, Henry R., Library Building, Buffalo, N. Y. (60). **H**
- Howland, Howard Newell, 5344 Jackson Ave., Chicago, Ill. (50). **F**
- Howland, Randolph H., 164 Wildwood Ave., Upper Montclair, N. J. (54). **F**
- Howson, Hubert, E. E., 38 Park Row, New York, N. Y. (60). **D**
- *Hoxton, Llewellyn Griffith, University of Virginia, Charlottesville, Va. (54). 1906. **B**
- Hoyle, William Evans, City Hall, Cardiff, England. (61).
- Hoyt, Olive Sawyer, Kobe College, Kobe, Japan. (52). **C**
- Hoyt, William Dana, M. D., Ph. D., Johns Hopkins University, Baltimore, Md. (60). **G**
- *Hrdlicka, Alès, M. D., Curator of Anthropology, U. S. National Museum, Washington, D. C. (46). 1897. **HK**
- *Hubbard, George David, Assistant Professor of Geology, Ohio State University, Columbus, Ohio. (55). 1909. **EHIL**
- Hubbard, John C., Ph. D., Clark University, Worcester, Mass. (58). **BL**
- Hubbard, Miss Marian Elizabeth, Associate Professor of Zoology, Wellesley College, Wellesley, Mass. (58). **F**
- Hubbard, Walter C., Coffee Exchange Building, New York, N. Y. (49).
- Hubbell, Henry S., Ashburnham, Mass. (57). **D**
- Hubbell, J. L., Ganado, Ariz. (58). **HI**
- *Huber, G. Carl, M. D., Professor of Histology and Embryology, University of Michigan, Ann Arbor, Mich. (50). 1901. **K**

- Hubert, J. Frank, M. D., 6820 Union Ave., Chicago, Ill. (60). **K**
- Hudson, Claude Silbert, Ph. D., Bureau of Chemistry, U. S. Department of Agriculture, Washington, D. C. (58). **B C**
- Hudson, Erastus Meade, 19 Broad St., Plattsburg, N. Y. (57). **F**
- *Hudson, George H., Vice-Principal, Science Department, State Normal School, Plattsburg, N. Y. (31). 1901. **F**
- Hudson, James A., Aldrich Court, New York, N. Y. (57).
- Huey, Edmund B., Ph. D., Director, Department of Clinical Psychology, Lincoln State School, Lincoln, Ill. (58). **H L**
- Huey, Walter B., M. D., El Campo, Tex. (60). **K**
- *Huff, William B., Associate Professor of Physics, Bryn Mawr College, Bryn Mawr, Pa. (60). 1910. **B**
- Hughes, David Edward, C. E., 723 Central Building, Los Angeles, Cal. (60). **D**
- Hughes, Francis T., Teacher of Biology, Boys' High School, Brooklyn, N. Y. (58). **F G L**
- Hughes, Hector James, Assistant Professor of Civil Engineering, Harvard University, Cambridge, Mass. (60). **D**
- Hughes, John W., 775 Hattic St., Schenectady, N. Y. (58). **D**
- Hughes, Percy, Ph. D., Assistant Professor of Philosophy and Psychology, Lehigh University, South Bethlehem, Pa. (58). **H L**
- *Hughes, R. M., Professor of Chemistry, Miami University, Oxford, Ohio. (57). 1908. **C**
- Hull, Andrew W., 130 34th St., Newport News, Va. (60).
- *Hull, Gordon Ferrie, Professor of Physics, Dartmouth College, Hanover, N. H. (50). 1903. **B**
- *Hume, Alfred, C. E., Professor of Mathematics, University of Mississippi, University, Miss. (39). 1909. **A D**
- Hummel, John A., 2143 Commonwealth Ave., St. Anthony, Minn. (48). **C**
- Humphrey, Clarence J., Forest Products Laboratory, Madison, Wis. (61).
- Humphrey, Harry Baker, Ph. D., 1606 B St., Pullman, Wash. (55). **G**
- *Humphrey, Richard Lewis, C. E., 805 Harrison Building, Philadelphia, Pa. (48). 1902. **D**
- *Humphreys, Alex. C., M. D., LL. D., 165 Broadway, New York, N. Y. (49). 1907. **D**
- Humphreys, David Carlisle, C. E., Professor of Civil Engineering, Washington and Lee University, Lexington, Va. (53). **D**
- Humphreys, Frederick B., M. D., 78 West 85th St., New York, N. Y. (57). **K**
- *Humphreys, Dr. William Jackson, Cosmos Club, Washington, D. C. (54). 1906. **A**
- Hunn, Chester Jermain, Hawaiian Experiment Station, Honolulu, Hawaii. (58). **G**
- Hunner, Guy Leroy, M. D., 2305 St. Paul St., Baltimore, Md. (60). **K**
- Hunt, Arthur E., Teacher of Biology, Manual Training High School, Brooklyn, N. Y. (54). **F L**

MEMBERS AND FELLOWS.

- Hunt, Charles B., M. E., 636 McKinley Ave., Salem, Ohio. (60). **D**
- Hunt, Chas. Wallace, Stapleton, L. I., N. Y. (51). **D**
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- *Hunt, Reid, M. D., Ph. D., Hygienic Laboratory, 25th and E Sts. N. W., Washington, D. C. (58). 1910. **C K**
- Hunt, Walter Fred., Instructor in Mineralogy, University of Michigan, Ann Arbor, Mich. (57). **C E**
- Hunter, Andrew, Assistant Professor of Biochemistry, Cornell University, Ithaca, N. Y. (60). **C K**
- *Hunter, Andrew Frederick, Barrie, Ontario, Canada. (38). 1896. **B H I**
- Hunter, George E., M. E.,..... (60). **D**
- Hunter, George William, 2238 Andrews Ave., University Heights, New York, N. Y. (51). **F**
- Hunter, John Vincent, E. E., 506 West Jefferson St., Fort Wayne, Ind. (60). **D**
- *Hunter, Samuel John, Professor of Entomology, University of Kansas, Lawrence, Kans. (50). 1902. **F**
- *Hunter, Walter David, Box 205, Dallas, Tex. (50). 1905. **F**
- HUNTINGTON, ARCHER M., Hispanic Society of America, 156th St., near Broadway, New York, N. Y. (57).
- *Huntington, Edward V., Ph. D., Assistant Professor of Mathematics, Harvard University, Cambridge, Mass. (58). 1908. **A**
- *Huntington, Ellsworth, Instructor in Geography, Yale University, New Haven, Conn. (51). 1909. **E**
- Huntington, F. W., 1801 Dorchester Road, Brooklyn, N. Y. (60). **B**
- *Huntington, George Sumner, Professor of Anatomy, Columbia University, New York, N. Y. (52). 1906. **F K**
- Huntoon, Louis Doremus, E. M., Professor of Mining and Metallurgy, Sheffield Scientific School, Yale University, New Haven, Conn. (55). **D**
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- *Hurd, Henry Mills, M. D., Superintendent, Johns Hopkins Hospital, Baltimore, Md. (58). 1909. **H K**
- Hurd, R. M., 59 Liberty St., New York, N. Y. (58). **I**
- Hurd, Prof. William D., Massachusetts Agricultural College, Amherst, Mass. (60). **F**
- Hurst, Julius H., M. D., Box 237, Santa Barbara, Cal. (52). **H K**
- Hurst, Walter E., M. D., 172 West Bethune Ave., Detroit, Mich. (58). **K**
- Hurt, Henry H., Box 208, Covington, Va. (58). **C**
- *Hurty, John N., M. D., 17 East 11th St., Indianapolis, Ind. (58). 1909. **K**
- Husik, Isaac, Ph. D., 408 So. 9th St., Philadelphia, Pa. (60). **H**
- Hussakof, Louis, Ph. D., American Museum of Natural History, New York, N. Y. (56). **F**
- Hussey, Harry Brigham, E. E., 309 O. C. S. Bank Building, Syracuse, N. Y. (60). **D**

- *Hussey, William Joseph, Professor of Astronomy, University of Michigan, Ann Arbor, Mich. (58). 1909. **A**
- Huston, Charles L., M. E., care Iron and Steel Co., Coatesville, Pa. (60).
D
- Huston, Henry A., Continental Building, Baltimore, Md. (53). **C**
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- Hutchings, Willard Hunter, M. D., Fine Arts Building, Detroit, Mich. (60). **K**
- *Hutchins, C. C., Professor of Physics, Bowdoin College, Brunswick, Me. (58). 1910. **B**
- *Hutchins, Edgar Burton, Jr., Ph. D., 174 East 1st St., Fond du Lac, Wis. (57). 1909. **C**
- *Hutchinson, Cary T., Ph. D., Consulting Engineer, 60 Wall St., New York, N. Y. (58). 1910. **B D**
- Hutchinson, Edward S., C. E., M. E., 34 South State St., Newtown, Pa. (58). **D**
- *Hutchinson, John Irwin, Ph. D., Professor of Mathematics, Cornell University, Ithaca, N. Y. (60). 1910. **A**
- Hutchinson, Woods, M. D., 38 East 49th St., New York, N. Y. (56). **K L**
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- Hyde, B. T. Babbitt, 20 West 53d St., New York, N. Y. (43). **C D H**
- Hyde, Miss Edith E., 1840 Summit Place, N. W., Washington, D. C. (50). **H I**
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- *Hyde, Edward P., Ph. D., Hough Ave. and 45th St., Cleveland, Ohio. (60). 1910. **B**
- *Hyde, Edward Wyllys, Professor of Mathematics, University of Cincinnati, Cincinnati, Ohio. (25). 1881. **A**
- Hyde, Frederick E., M. D., 11 West 52d St., New York, N. Y. (43). **E K**
- Hyde, Frederick E., Jr., 542 Fifth Ave., New York, N. Y. (43). **H**
- Hyde, Henry St. John, 210 East 18th St., New York, N. Y. (49). **B C D E**
- Hyde, Jesse Earl, Lancaster, Ohio. (57). **E F**
- *Hyde, John, 1840 Summit Place, N. W., Washington, D. C., (47). 1898. **E I**
- Hyde, Perley Charles, Instructor, Department of Mathematics, Jersey City High School, Jersey City, N. J. (58). **A B C H L**
- Hyde, Roscoe Raymond, Assistant Professor of Zoology and Botany, Indiana State Normal School, Terre Haute, Ind. (60). **F G**
- Hyslop, J. A., Bureau of Entomology, U. S. Department of Agriculture, Washington, D. C. (60). **F**

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- Hyslop, James Hervey, Ph. D., LL. D., 519 West 149th St., New York, N. Y. (56). **I**
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- *Iddings, Joseph Paxson, Professor of Petrology, University of Chicago, Chicago, Ill. (31). 1884. **E**
- Iknayan, Nicholas C., M. D., 613 6th St., Charleston, Ill. (60). **K**
- *ILES, GEORGE, 5 Brunswick St., Montreal, Canada. (31). 1898. **I**
- Illoway, Henry, M. D., 1113 Madison Ave., New York, N. Y. (57). **KL**
- Imlay, Lorin Everett, Superintendent, Niagara Falls Power Company, Niagara Falls, N. Y. (60). **D**
- Ingall, Elfric Drew, M. E., Geological Survey, Ottawa, Canada. (60). **E**
- Ingals, E. Fletcher, M. D., 5540 Woodlawn Ave., Chicago, Ill. (60). **K**
- Ingersoll, John M., M. D., 318 Euclid Ave., Cleveland, Ohio. (60). **K**
- *Ingersoll, Leonard Rose, Associate Professor of Physics, University of Wisconsin, Madison, Wis. (58). 1910. **B**
- Ingham, William Armstrong, Room 406, Lafayette Building, 5th and Chestnut Sts., Philadelphia, Pa. (33). **E**
- Ingraham, George Landon, 80 Irving Place, New York, N. Y. (57).
- Ingram, Prof. Edward Lovering, C. E., University of Pennsylvania, Philadelphia, Pa. (51). **D**
- Iorns, Martin J., Government Experiment Station, Mayaguez, Porto Rico. (50). **CG**
- *Irving, John Duer, Professor of Economic Geology, Yale University, New Haven, Conn. (51). 1903. **DE**
- Irving, Mrs. Rosina J., 320 West 111th St., New York, N. Y. (57).
- Irwin, Frederick C., Central High School, Detroit, Mich. (60). **I**
- Irwin, Ralph E., State Department of Health, Harrisburg, Pa. (60).
DF
- Isaacs, Miss Alice M., 110 East 73d St., New York, N. Y. (58). **FG**
- *Isham, George Snow, M. D., 1340 North State St., Chicago, Ill. (54). 1906. **AK**
- *Ives, Frederick Eugene, Woodcliff-on-Hudson, Weehawken, N. J. (44). 1898. **B**
- *Ives, James Edmund, Ph. D., Associate Professor of Physics, University of Cincinnati, Cincinnati, Ohio. (58). 1910. **B**
- Ives, Judson Dunbar, Instructor in Biology, Wake Forest College, Wake Forest, N. C. (60). **F**
- Jablonowski, Joseph, Director, Entomological Station of the State, Budapest, Hungary. (58). **F**
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- *Jack, John George, Assistant Professor of Dendrology, Harvard University, 117 Forest Hill St., Jamaica Plain, Mass. (31). 1890. **FG**
- *Jackson, Abraham Wendell, 27 Columbus Ave., Rockaway Park, L. I., N. Y. (54). 1906. **EL**
- Jackson, C. Floyd, Durham, N. H. (58). **F**

MEMBERS AND FELLOWS.

- *Jackson, Charles Loring, Professor of Chemistry, Harvard University, Cambridge, Mass. (44). 1895. **C**
- Jackson, Clarence Martin, M. D., Professor of Anatomy, University of Missouri, Columbia, Mo. (58). **FK**
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- Jackson, H. S., Professor of Botany and Plant Pathology, Oregon Agricultural College, Corvallis, Ore. (60). **G**
- Jackson, Hartley H. T., Biological Survey, U. S. Dept. of Agriculture, Washington, D. C. (61). **F**
- *Jackson, Holmes Condict, Ph. D., 338 East 26th St., New York, N. Y. (57). 1908. **K**
- Jackson, James H., M. D., Dansville, N. Y. (60). **K**
- Jackson, John Price, State College, Pa. (61). **D**
- *Jackson, Dr. Robert Tracy, 9 Fayerweather St., Cambridge, Mass. (37). 1890. **F**
- Jackson, Thomas Moore, C. E., Clarksburg, W. Va. (60). **D**
- Jackson, Victor Hugo, M. D., 240 Lenox Ave., New York, N. Y. (51). **K**
- Jackson, William, 136 Academy Hill Road, Brighton, Mass. (60).
- Jackson, William B., M. D., 329 High St., Lowell, Mass. (60). **K**
- Jackson, William R., M. D., Mobile, Ala. (60). **K**
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- *Jacobs, Henry Barton, M. D., 11 Mt. Vernon Place, Baltimore, Md. (50). 1909. **FGKL**
- *Jacobs, J. Warren, 404 South Washington St., Waynesburg, Pa. (54). 1906. **F**
- Jacobs, Michael William, 222 Market St., Harrisburg, Pa. (50). **I**
- *Jacobus, David Schenck, M. E., 85 Liberty St., New York, N. Y. (36). 1889. **ABD**
- Jacobus, R. Fulton, M. E., Ridgefield, N. J. (60). **D**
- *Jacoby, Harold, Ph. D., Professor of Astronomy, Columbia University, New York, N. Y. (38). 1891. **A**
- *Jacoby, Henry Sylvester, Professor of Bridge Engineering, Cornell University, Ithaca, N. Y. (36). 1892. **DL**
- Jacoby, J. Ralph, M. D., 54 West 88th St., New York, N. Y. (60). **K**
- James, Charles C., Department of Agriculture, Toronto, Canada. (46). **I**
- James, George Francis, Ph. D., Dean, College of Education, University of Minnesota, Minneapolis, Minn. (58). **L**
- James, Henry C., The Albion, Baltimore, Md. (60).
- James, John Nelson, Indiana State Normal School, Indiana, Pa. (58). **C**
- James, Joseph Hidy, Ph. D., Professor of Chemistry, Carnegie Technical Schools, Pittsburg, Pa. (58). **CDL**
- James, Mrs. Sarah Stubbs, 1504 R St., Washington, D. C. (49). **EGI**

MEMBERS AND FELLOWS.

- *James, Walter Belknap, M. D., Professor of Clinical Medicine, Columbia University, New York, N. Y. (54). 1906 **K**
- Jameson, A. H., Branford, Conn. (60). **C**
- Jamieson, Clara O., Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C. (60). **G**
- Jamieson, George S., 139 Canner St., New Haven, Conn. (60). **C**
- Jamieson, Thomas H., M. D., Wellington, Kans. (60). **K**
- Janeway, Edward G., M. D., LL. D., 36 West 40th St., New York, N. Y. (57). **K**
- Janeway, Henry H., M. D., 130 West 57th St., New York, N. Y. (60). **K**
- *Jaques, William Henry, Engineer and Naval Architect, Little Boars Head, New Hampshire. (47). 1899. **D**
- Jarman, Joseph L., President and Professor of Chemistry, State Female Normal School, Farmville, Va. (51). **C**
- *Jastrow, Joseph, Ph. D., Professor of Psychology, University of Wisconsin, Madison, Wis. (35). 1887. **F H**
- *Jayne, Horace, M. D., Ph. D., Wallingford, Pa. (29). 1884. **F H K**
- Jeffers, Leonard M., U. S. Department of Agriculture, Washington, D. C. (60). **C**
- Jefferson, John Percival, Warren, Pa. (51). **D E H**
- *Jefferson, Mark S. W., Professor of Geography, Michigan State Normal College, Ypsilanti, Mich. (52). 1906. **E**
- Jeffrey, Alexander B., M. D., 818 Kansas Ave., Topeka, Kans. (60). **K**
- *Jeffrey, Edward Charles, Ph. D., 47 Lakeview Ave., Cambridge, Mass. (52). 1905. **G**
- Jeffrey, Robert Henry, Gabriel, Durango, Mexico. (53). **E**
- *Jeffries, B. Joy, M. D., 15 Chestnut St., Boston, Mass. (29). 1881. **B F K**
- Jeffs, R. E., Iowa State College, Ames, Iowa. (61). **G**
- Jelly, Arthur Carlton, M. D., 10 Arlington St., Boston, Mass. (60). **H K L**
- Jelly, George Frederick, M. D., 69 Newbury St., Boston, Mass. (50). **F K**
- *Jenkins, Edw. Hopkins, Ph. D., Agricultural Station, New Haven, Conn. (33). 1885. **C**
- JENKINS, GEORGE C., Abell Building, Baltimore, Md. (60).
- Jenkins, Lawrence Waters, Curator of Ethnology, Peabody Museum, Salem, Mass. (57). **H**
- *Jenkins, Oliver Peebles, Ph. D., Professor of Physiology, Stanford University, Cal. (52). 1905. **F K**
- *Jenks, Albert Ernest, Professor of Anthropology, University of Minnesota, Minneapolis, Minn. (50). 1902. **H**
- *Jenks, Elisha Tucker, Middleboro, Mass. (22). 1874. **D**
- Jenks, Wm. H., Brookville, Pa. (38).
- Jenks, William Johnson, 120 Broadway, New York, N. Y. (50) **B D**
- Jenne, E. L., Bureau of Entomology, U. S. Department of Agriculture, Washington, D. C. (58). **F**

- *Jenney, Walter Proctor, Ph. D., 3 Grant Place, N. W., Washington, D. C. (50). 1903. **E**
- Jennings, Allan H., Ancon, Canal Zone, Panama. (60). **F**
- Jennings, E. P., E. M., P. O. Box 841, Salt Lake City, Utah. (60). **D**
- Jennings, Fred Huntington, 121 South Pleasant St., Watertown, N. Y. (57). **C**
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- *Jennings, Herbert Spencer, Ph. D., Henry Walters Professor of Zoology, and Director, Biological Laboratory, Johns Hopkins University, Baltimore, Md. (54). 1906. **F**
- Jennings, Rev. James J., 333 Springfield Ave., Chicago, Ill. (60). **IL**
- *Jennings, Otto Emery, Carnegie Museum, Pittsburg, Pa. (53). 1909. **G**
- *Jennings, Walter L., Ph. D., Professor of Organic Chemistry, Worcester Polytechnic Institute, Worcester, Mass. (45). 1898. **C**
- Jensen, Chas. A., Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C. (54). **G**
- Jensen, Jens, 604 North Sacramento Ave., Chicago, Ill. (58). **EFG**
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- Jessen, Karl Detlev, Ph. D., Professor of German Literature, Bryn Mawr College, Bryn Mawr, Pa. (55). **H**
- *Jewell, Lewis E., Johns Hopkins University, Baltimore, Md. (49). 1906. **A**
- Jewell, Miss Susan Grace, Instructor in Biology, Tabor College, Tabor, Iowa. (58). **FG**
- Jewell, William M., Park Ridge, Ill. (58).
- Jewett, Charles, M. D., 330 Clinton Ave., Brooklyn, N. Y. (60). **K**
- *Jewett, Frank Fanning, Professor of Chemistry, Oberlin College, Oberlin, Ohio. (47). 1899. **C**
- Jewett, William Cornell, C. E., 541 Ridgeway Ave., Avondale, Cincinnati, Ohio. (52). **D**
- *Job, Robert, Chemist, 9 Springfield Ave., Montreal, Canada. (54). 1908. **C**
- *Joffe, S. A., Mutual Life Insurance Co. of New York, 55 Cedar St., New York, N. Y. (54). 1906. **A**
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- Johannsen, Oskar Augustus, Professor of Civil Engineering, Orono, Me. (54). **D**
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MEMBERS AND FELLOWS.

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- *Johnson, Douglas Wilson, Assistant Professor of Geology, Massachusetts Institute of Technology, Boston, Mass. (54). 1909. **E**
- *Johnson, Duncan S., Ph. D., Professor of Botany, Johns Hopkins University, Baltimore, Md. (54). 1906. **G**
- Johnson, Frank Seward, M. D., 2521 Prairie Ave., Chicago, Ill. (51).
B K
- *Johnson, Herbert Parlin, Ph. D., Cedaredge, Colo. (54). 1906. **K**
- Johnson, James H., M. D., 814 West 7th St., Los Angeles, Cal. (60). **K**
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C
- Johnson, John W., Professor of Physics, University of Mississippi, University, Miss. (55). **B**
- Johnson, Montgomery Hunt, E. E., 41 Plant St., Utica, N. Y. (60). **D**
- *Johnson, Otis Coe, Professor of Qualitative Chemical Analysis, University of Michigan, Ann Arbor, Mich. (34). 1886. **C**
- Johnson, Roswell H., 403 Mutual Building, Bartlesville, Okla. (60). **F**
- Johnson, S. Arthur, Associate Professor of Zoology, State Agricultural College, Fort Collins, Colo. (58). **F**
- Johnson, Thomas Carskadon, Virginia Truck Experiment Station, Norfolk, Va. (51). **G**
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- *Johnston, John Black, Ph. D., Associate Professor of Neurology, University of Minnesota, Minneapolis, Minn. (52). 1904. **F L**
- Johnston, Col. Thomas Alexander, Superintendent, Kemper Military School, Boonville, Mo. (55).
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- *Johannott, Edwin Sheldon, Jr., Ph. D., Associate Professor of Physics, Rose Polytechnic Institute, Terre Haute, Ind. (50). 1904. **B**
- Jones, A. Holden, M. D., 222 Bradbury Bldg., Los Angeles, Cal. (61). **K**
- *Jones, Adam Leroy, Ph. D., 220 West 107th St., New York, N. Y. (52). 1905. **H L**
- Jones, Arthur Taber, Assistant Professor of Physics, Purdue University, Lafayette, Ind. (53). **B**

- *Jones, C. Hampson, M. D., 2529 St. Paul St., Baltimore, Md. (58).
1909. **K**
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- Jones, Charles R., 317 Edward St., Fort Collins, Colo. (55). **F**
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- Jones, Franklin T., 2087 Adelbert Road, S. E., Cleveland, Ohio. (60). **C**
- *Jones, Frederick Scheetz, Professor of Physics, Lampson Hall, Yale College, New Haven, Conn. (45). 1901. **B**
- Jones, Frederick William, 39 Pembury Road, Clapton, London, N. E., England. (58). **ABC**
- Jones, George E., M. D., Evansville, Ind. (60). **K**
- Jones, Grandville R., C. E., Filtration Plant, Washington, D. C. (60). **D**
- Jones, Hon. Granville D., Wausau, Wis. (60). **L**
- Jones, Grinnell, 7 Sumner Road, Cambridge, Mass. (52). **C**
- Jones, Howard E. A., Suffield, Conn. (60). **L**
- Jones, Lafon, Central Machete, Guayama, Porto Rico. (58). **C**
- *Jones, Lauder W., University of Cincinnati, Cincinnati, Ohio. (60).
1910. **C**
- *Jones, Lewis Ralph, Ph. D., Professor of Botany, University of Wisconsin, Madison, Wis. (41). 1894. **G**
- Jones, Louis Cleveland, Ph. D., care Solvay Process Co., Syracuse, N. Y. (58). **CE**
- *Jones, Lynds, Instructor in Zoology, Oberlin College, Oberlin, Ohio. (50). 1905. **F**
- *Jones, Prof. Marcus Eugene, 270 West South Temple St., Salt Lake City, Utah. (40). 1893. **EG**
- Jones, Paul R., U. S. Department of Agriculture, San Jose, Cal. (58). **F**
- Jones, Richard Watson, LL. D., Laurel, Miss. (55). **DL**
- Jones, W. Ralph, Johns Hopkins University, Baltimore, Md. (61). **G**
- Jones, Walter C., M. D., 1358 Dakin St., Chicago, Ill. (60). **K**
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- Jonson, Ernst Fredrik, C. E., 299 Broadway, New York, N. Y. (60). **D**
- *Jordan, David Starr, Ph. D., LL. D., President, Leland Stanford Junior University, Stanford University, Cal. (31). 1883. **EFGIKL**
- *Jordan, Edwin Oakes, Ph. D., Professor of Bacteriology, University of Chicago, Chicago, Ill. (50). 1901. **K**
- *Jordan, Henry Ernest, Ph. D., University P. O., Va. (57). 1909. **FK**
- Jordan, James Douglas, M. D., Madisonville, Tex. (60). **K**
- Jordan, Lyman G., Bates College, Lewiston, Me. (60). **C**
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MEMBERS AND FELLOWS.

- *Jordan, Whitman H., Director, New York Agricultural Experiment Station, Geneva, N. Y. (45). 1902. **I**
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- Joyce, Clarence M., P. O. Box 23, Arlington, N. J. (60). **C**
- Juat, Francis J., M. D., Raeford, N. C. (50). **F K**
- Juday, Chancey, 610 Lake St., Madison, Wis. (58). **F**
- *Judd, Charles Hubbard, Ph. D., Professor of Psychology, University of Chicago, Chicago, Ill. (49). 1901. **H I L**
- Judd, Horace, Assistant Professor of Experimental Engineering, Ohio State University, Columbus, Ohio. (56). **D**
- Judson, Champion Hiram, M. D., Dobbs Ferry, N. Y. (57). **K**
- *Judson, Harry Pratt, LL. D., Professor of Political Science, University of Chicago, Chicago, Ill. (58). 1910. **L**
- Juettner, Otto, M. D., 628 Elm St., Cincinnati, Ohio. (57). **K**
- *Julien, Alexis Anastay, Ph. D., Columbia University, New York, N. Y. (24). 1875. **C E**
- Jürgensen, Jess Christian, M. E., 29 West 97th St., New York, N. Y. (60). **D**
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- *Kahlenberg, Louis, Ph. D., Professor of Physical Chemistry, University of Wisconsin, Madison, Wis. (46). 1898. **B C**
- Kahlo, Geo. Dwight, M. D., French Lick, Ind. (58). **K**
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- *Kane, Elisha Kent, Kushequa, Pa. (54). 1906. **D**
- Kane, R. Emmet, M. D., 312 Humboldt Building, St. Louis, Mo. (58). **K**
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- Karapetoff, Vladamir, E. E., Professor of Electrical Engineering, Cornell University, Ithaca, N. Y. (60). **D**
- Karsten, Adrian C., M. D., Horicon, Wis. (58). **K**
- *Kasner, Edward, Ph. D., Professor of Mathematics, Barnard College, Columbia University, New York, N. Y. (52). 1904. **A**
- Katsuki, I., M. D., Honolulu, Hawaii. (60). **K**
- Katz, Frank J., U. S. Geological Survey, Washington, D. C. (60). **E**
- Kauffman, William Albert, 15 Union Park Ave., Jamaica, N. Y. (52).

- Kaufmann, Franklin John, M. D., 311 West Genesee St., Syracuse, N. Y. (60). **K**
- Kaufmann, Jacob, M. D., 52 East 58th St., New York, N. Y. (60). **K**
- Kautz-Eulenberg, Miss P. R., 45 West 11th St., New York, N. Y. (61).
- Kavanagh, Thomas J., Superintendent, American Sugar Refining Co., Jersey City, N. J. (56). **C**
- Kawin, Chas. C., 507-40 Dearborn St., Chicago, Ill. (58). **C**
- *Kay, Geo. Frederick, Professor of Petrology and Economic Geology, Iowa City, Iowa. (57). 1910. **E**
- Kay, James I., 5440 Forbes St., Pittsburg, Pa. (51). **DI**
- Kayser, William, 26 East Anglaize St., Wapakoneta, Ohio. (58). **FG**
- Kearfott, W. D., Montclair, N. J. (54). **F**
- *Kearney, Thomas H., U. S. Department of Agriculture, Washington, D. C. (47). 1902. **G**
- Kebler, Lyman F., U. S. Department of Agriculture, Washington, D. C. (60). **C**
- Keeler, Mrs. Charles E., 212-213 Miller Bldg., North Yakima, Wash. (60). **C**
- *Keen, William W., M. D., 1729 Chestnut St., Philadelphia, Pa. (60). 1910. **K**
- Keep, Josiah, Mills College, Cal. (60). **EL**
- *Keep, Wm. John, 753 Jefferson Ave., Detroit, Mich. (37). 1897. **D**
- Keffer, Frederic, M. E., Greenwood, B. C., Canada. (60). **D**
- Kehew, Mrs. Mary Morton, 29a Chestnut St., Boston, Mass. (60).
- Keilholtz, Pierre Otis, Consulting Engineer, Continental Trust Building, Baltimore, Md. (50). **D**
- Keim, Edward Tudor, E. E., Superintendent, American District Tel. Co., Denver, Colo. (50). **DEF**
- *Keith, Arthur, U. S. Geological Survey, Washington, D. C. (60). 1910. **E**
- Keith, John Meiggs, San José, Costa Rica, C. A. (54). **GI**
- *Keith, Miss Marcia A., 116 Nassau St., New York, N. Y. (46). 1906. **ABD**
- Keith, Simeon C., Jr., 88 Broad St., Boston, Mass. (60). **F**
- Keith, Stanley, care Keith Bros. & Co., 239 Jackson Boulevard, Chicago, Ill. (58).
- Keitt, Thomas Ellison, Clemson College, S. C. (60). **C**
- *Keller, Edward, Ph. D., Box 363, Perth Amboy, N. J. (50). 1904. **C**
- Keller, Emil E., 1009 The Pasadena, Detroit, Mich. (51). **B C D E**
- Keller, Frederick C., M. D., 41 West 71st St., New York, N. Y. (60). **K**
- Keller, George J., 191 Avon Ave., Newark, N. J. (58). **F**
- *Kellerman, Karl Frederic, Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C. (58). 1909. **G**
- Kelley, Frank J., 900 North 41st St., Philadelphia, Pa. (61). **F**
- Kelley, George Leslie, 272 Main St., Everett, Mass. (58). **C**
- Kelley, Morriss De Witt, M. D., La Grange, Ky. (60). **K**
- Kelley, Walter P., Chemist, Hawaii Agricultural Experiment Station, Honolulu, Hawaii. (58). **C**

MEMBERS AND FELLOWS.

- Kelley, William Datus, C. E., 45 East 42d St., New York, N. Y. (60). **D**
- *Kellicott, Wm. E., Ph. D., Professor of Biology, The Woman's College, Baltimore, Md. (57). 1909. **F**
- Kellogg, Edward L., M. D., 104 West 58th St., New York, N. Y. (60). **K**
- Kellogg, J. Wilford, State Laboratory of Hygiene, Raleigh, N. C. (58).
- Kellogg, John Harvey, M. D., Superintendent, Battle Creek Sanitarium, Battle Creek, Mich. (24). **CHIK**
- *Kellogg, Vernon Lyman, Professor of Entomology, Leland Stanford Junior University, Stanford University, Cal. (50). 1901. **FH**
- Kelly, Edward H., M. D., Ironwood, Mich. (60). **K**
- Kelly, Edward O. G., U. S. Entomological Laboratory, Wellington, Kans. (55). **F**
- Kelly, F. M., M. D., Needles, Cal. (60). **K**
- Kelly, Harry McCormick, Professor of Biology, Cornell College, Mt. Vernon, Iowa. (60). **F**
- Kelly, Henry A., 33 Central Park, W., New York, N. Y. (60). **F**
- *Kelly, Howard A., M. D., 1418 Eutaw Place, Baltimore, Md. (60). 1910. **K**
- Kelly, John F., Ph. D., Consulting Electrical Engineer, 284 West Housatonic St., Pittsfield, Mass. (50). **D**
- Kelly, William, E. M., General Manager, Pennsylvania Iron Mining Co., Vulcan, Mich. (50). **DE**
- Kelman, John H., M. E., 194 Lefferts Place, Brooklyn, N. Y. (60). **D**
- Kelsey, James A., Dunlap, Iowa. (49).
- Kelvey, Charles W., Attorney-at-Law, 49 Wall St., New York, N. Y. (57).
- *Kemp, George T., M. D., Ph. D., Hotel Beardsley, Champaign, Ill. (52). 1906. **K**
- *Kemp, James Furman, Professor of Geology, Columbia University, New York, N. Y. (36). 1888. **E**
- Kempton, Charles Walter, E. M., 29 Broadway, New York, N. Y. (54). **E**
- *Kendall, William Converse, Bureau of Fisheries, U. S. Department of Commerce and Labor, Washington, D. C. (52). 1906. **FKL**
- *Kendrick, Arthur, 45 Hunnewell Ave., Newton, Mass. (45). 1897. **B**
- Kenefick, Joseph A., M. D., 78 East 54th St., New York, N. Y. (60). **K**
- Kenerson, William H., M. E., 100 Morris Ave., Providence, R. I. (60). **D**
- Kennedy, Frank Lowell, Assistant Professor of Drawing and Machine Design, Harvard University, Cambridge, Mass. (50). **D**
- Kennedy, George Golding, M. D., Readville, Mass. (40). **EG**
- KENNEDY, HARRIS, M. D., 286 Warren St., Roxbury, Mass. (40). **EF**
- Kennedy, Jeremiah Joseph, C. E., 52 Broadway, New York, N. Y. (60). **D**
- Kennedy, Mary Elizabeth, Mt. Holyoke College, South Hadley, Mass. (54). **G**
- Kennedy, Willard J., Professor of Animal Husbandry, Iowa State College, Ames, Iowa. (61).
- *Kennelly, Arthur Edwin, Professor of Electrical Engineering, Harvard University, Cambridge, Mass. (50). 1901. **ABC**

Kenney, Miss C. Belle, Quincy Mansion School, Wollaston, Mass. (58).

A B C E L

Kent, G. H., 1 Broadway, New York, N. Y. (57).

Kent, James Martin, Instructor in Steam and Electricity, Manual Training High School, Kansas City, Mo. (50). **BDL**

*Kent, Norton Adams, Ph. D., Boston University, Boston, Mass. (50).
1906. **A**

*Kent, William, 49 Union St., Montclair, N. J. (26). 1881. **DL**

Kenyon, Oscar Curtis, 110 Lancaster Ave., Syracuse, N. Y. (50). **B**

Kenyon, Wm. Houston, 49 Wall St., New York, N. Y. (57). **BIL**

Keppel, Frederic Paul, Secretary, Columbia University, New York, N. Y.
(51). **L**

Keppel, Herbert G., Professor of Mathematics, University of Florida,
Gainesville, Fla. (60). **A**

Kepler, Rudolph, 28 West 70th St., New York, N. Y. (49).

*Kern, Frank Dunn, Purdue University, Lafayette, Ind. (54). 1909. **G**

Kern, John H., M. D., 1317 Madison St., St. Louis, Mo. (53). **K**

Kern, Josiah Quincy, Ph. D., 1825 F St. N. W., Washington, D. C. (40). **I**

*Kerr, Abram Tucker, M. D., Professor of Anatomy, Cornell University,
Ithaca, N. Y. (52). 1906. **FK**

Kerr, Charles Henry, American Optical Co., Southbridge, Mass. (58).

CE

Kerr, Henry, Le Grand, California. (61). **L**

*Kerr, William Jasper, President, Oregon Agricultural College, Corvallis,
Oregon. (52). 1906. **A**

*Kershner, Jefferson E., Ph. D., 445 West Chestnut St., Lancaster, Pa.
(29). 1883. **CE**

Kesler, John Louis, Professor of Biology, Baylor University, Waco, Tex.
(51). **FGK**

*Kester, Fred Edward, University of Kansas, Lawrence, Kan. (48). 1906.
B

Ketchum, Milo Smith, Dean of College of Engineering and Professor of
Civil Engineering, University of Colorado, Boulder, Colo. (58). **ADL**

*Keyes, Chas. R., 944 Fifth Ave., Des Moines, Iowa. (58). 1910. **E**

*Keyser, Cassius Jackson, Ph. D., Head, Department of Mathematics,
Columbia University, New York, N. Y. (50). 1901. **A**

Keyser, R. Brent, Keyser Building, Baltimore, Md. (60).

Keyte, I. Allen, Marshall, Mo. (60). **AC**

Khuon, Edwin, M. D., 1927 Central Ave., Cincinnati, Ohio. (60). **K**

Kibbe, Ralph M., 582 Jackson St., Milwaukee, Wis. (58). **C**

Kidder, Alfred Franklin, Assistant Professor of Agronomy, College of
Agriculture, Louisiana State University, Baton Rouge, La. (58). **EG**

KIDDER, NATHANIEL T., Milton, Mass. (60).

Kier, Samuel Martin, E. E., 341 6th Ave., Pittsburg, Pa. (60). **D**

*Kilgore, Benjamin Wesley, State Chemist, Raleigh, N. C. (52). 1906. **C**

Killeen, John F., Ph. D., 215 Telegraph Ave., Oakland, Cal. (60). **F**

MEMBERS AND FELLOWS.

- *Kimball, Arthur Lalanne, Ph. D., Professor of Physics, Amherst College, Amherst, Mass (50). 1901. **B**
 Kimball, Edwin Boyce, 209 Hillside Ave., Piedmont Station, Oakland, Cal. (50). **D E**
 Kimball, Horatio G., Chatham, N. J. (57).
 Kimball, James Henry, U. S. Weather Bureau, Richmond, Va. (51).
A B E
 Kimball, Sumner I., General Superintendent, Life Saving Service, U. S. Treasury Department, Washington, D. C. (49). **H I**
 Kincaid, Trevor, University of Washington, Seattle, Wash. (60). **F**
 *Kindle, Edward M., Ph. D., U. S. Geological Survey, Washington, D. C. (50). 1908. **E**
 *King, Albert F. A., M. D., LL. D., 1315 Massachusetts Ave. N. W., Washington, D. C. (29). 1900. **F H K L**
 *King, Arthur Scott, Ph. D., Superintendent, Physical Laboratory, Mt. Wilson Solar Observatory, Pasadena, Cal. (60). 1910. **B**
 King, Charles Lee, M. D., 70 South Euclid Ave., Pasadena, Cal. (60). **K**
 *King, Cyrus A., Ph. D., 661 Flatbush Ave., Brooklyn, N. Y. (50). 1904.
G
 King, Edward S., Harvard College Observatory, Cambridge, Mass. (60)
A B
 *King, Franklin Hercus, 1540 University Ave., Madison, Wis. (32). 1892. **B E**
 *King, Helen Dean, Ph. D., Wistar Institute of Anatomy, 36th St. and Woodland Ave., Philadelphia, Pa. (54). 1908. **F**
 King, Irving, Ph. D., State University of Iowa, Iowa City, Iowa. (58). **H L**
 *King, W. F., Chief Astronomer, Department of the Interior, Ottawa, Canada. (55). 1908. **A**
 *Kingsbury, Albert, 219 Stratford Ave., Pittsburg, Pa. (43). 1898. **D**
 *Kingsbury, Benj. F., Cornell University, Ithaca, N. Y. (45). 1899. **F**
 *Kingsbury, Joseph T., President and Professor of Chemistry, University of Utah, Salt Lake City, Utah. (57). 1909. **C**
 *Kingsley, John Sterling, Professor of Biology, Tufts College, Mass. (52). 1904. **F**
 Kinner, Hugo, M. D., 1103 Rutger St., St. Louis, Mo. (21). **F H K**
 KINNEY, FRANCIS S., The Essex, New York, N. Y. (57).
 Kinney, Frank F., E. E., 84 Market St., Chicago, Ill. (60). **D**
 *Kinnicut, Francis P., M. D., 39 East 35th St., New York, N. Y. (57). 1909. **K**
 *Kinnicut, Dr. Leonard Parker, Director, Department of Chemistry, Worcester Polytechnic Institute, Worcester, Mass. (28). 1883. **C**
 KINSEY, OLIVER P., Vice-President, Valparaiso University, Valparaiso, Ind. (58). **I**
 Kinsler, John H., U. S. Department of Agriculture, Washington, D. C. (52). **G**
 *Kinsley, Carl, University of Chicago, Chicago, Ill. (47). 1903. **B**

- Kinsley, M. H., Superintendent of Schools, Hudson Co., 808 Hudson St., Hoboken, N. J. (60). **L**
- Kinsman, David N., M. D., American Savings Bank Bldg., Columbus, Ohio. (60). **K**
- *Kinyoun, Joseph J., M. D., 1423 Clifton St., Washington, D. C. (51). 1903. **K**
- Kipper, H. Brunswick, Ph. D., care of Semet-Solvay Company, Milwaukee, Wis. (60). **C**
- Kirby, Cuthbert M., 616 West Main St., Lead, South Dak. (58). **C**
- Kirby, Gustavus T., 2 Wall St., New York, N. Y. (54). **B D**
- Kirby, I. Henry, C. E., Roslyn, N. Y. (60). **D**
- Kirk, Charles T., Ph. D., 318 Lake St., Madison, Wis. (61).
- Kirk, Edward C., 554 South Lansdowne Ave., Lansdowne, Pa. (54).
- Kirk, Edwin, 2108 H St. N. W., Washington, D. C. (57). **E F**
- KIRKHAM, STANTON DAVIS, Canandaigua, N. Y. (61).
- Kirkham, William Barri, Ph. D., Instructor of Biology, Yale University, New Haven, Conn. (60). **F**
- Kirkland, Archibald, 78 High St., Irvine, Ayrshire, Scotland. (56). **C**
- *Kirkpatrick, Edwin Asbury, State Normal School, Fitchburg, Mass. (49). 1905. **H I**
- Kirkpatrick, Samuel, M. D., Selma, Ala. (51). **K**
- *Kirkwood, Joseph Edward, Ph. D., Professor of Botany and Forestry, University of Montana, Missoula, Mont. (51). 1905. **G**
- *Kirschmann, August, Ph. D., University of Toronto Toronto, Canada. (50). 1901. **H**
- Kissell, Mary Lois, American Museum of Natural History, New York, N. Y. (58). **H**
- Kite, George Lester, M. D., Instructor in Biology, State Normal School, Farmville, Va. (60). **F**
- Kite, Miss Rebecca, 7 Alveston St., Jamaica Plain, Mass. (61). **F**
- Kitsee, Dr. Isador, E. E., 209 Walnut Place, Philadelphia, Pa. (58). **D**
- Kittredge, Harvey Gaylord, Box 905, Dayton, Ohio. (58). **C**
- Klamt, Augustus J., E. M., Drawer 1, Rhyolite, Nev. (58). **D**
- Klaus, Carl F., 2148 West 22d St., Chicago, Ill. (58).
- Klein, Arthur Warner, M. E., Assistant Professor of Mechanical Engineering, Lehigh University, South Bethlehem, Pa. (60). **D**
- Klein, Edward Nichols Emil, 135 14th St., College Point, N. Y. (56). **C G**
- Kliener, Israel Simon, Richardson Chemistry Building, Tulane University, New Orleans, La. (57). **C K**
- Klepetko, Frank, Room 1707, 42 Broadway, New York, N. Y. (50). **D**
- Kletzsch, Gustave A., M. D., 453 Cass St., Milwaukee, Wis. (51). **K**
- Klie, G. H. Chas., M. D., 5100 North Broadway, St. Louis, Mo. (39). **C F K**
- Kline, Irvin Eugene, Blair Academy, Blairstown, N. J. (58). **A B L**
- Klipphahn, Emil O. E., E. E., Dobbins, Cal. (60). **D**
- *Klotz, Otto Julius, 437 Albert St., Ottawa, Canada. (38). 1889. **A**

MEMBERS AND FELLOWS.

- Kluegel, Charles Henry, C. E., Hilo, Hawaii. (60). **D**
- Knab, Frederick, U. S. National Museum, Washington, D. C. (53). **F**
- Knapp, Alfred Averill, M. D., Brimfield, Ill. (51). **K**
- Knapp, Arthur, Houma, La. (61).
- *Knapp, Hon. Martin Augustus, LL. D., Interstate Commerce Commission, Washington, D. C. (52). 1904. **I**
- Knaus, Warren, McPherson, Kans. (58). **F**
- Kneeland, Frederick Revell, Massachusetts Institute of Technology, Boston, Mass. (58). **B C**
- Knight, Arthur L., M. D., 6011 Main St., Madisonville, Cincinnati, Ohio. (60). **K**
- *Knight, Prof. Charles M., 129 South Union St., Akron Ohio. (29). 1904. **B C**
- Knight, Cyril W., E. M., Bureau of Mines, Parliament Buildings, Toronto, Ontario, Canada. (58). **D**
- Knight, Lee Irving, Clemson Agricultural College, Clemson College, S. C. (60). **G**
- *Knipp, Charles Tobias, Ph. D., 913 West Nevada St., Urbana, Ill. (46). 1900. **B**
- Knoll, Lloyd Monroe, 3262 Chestnut St., Philadelphia, Pa. (61).
- *Knopf, S. Adolphus, M. D., 16 West 95th St., New York, N. Y. (57). 1909. **K**
- *Kowner, Henry McElderry, Ph. D., Professor of Anatomy, University of Cincinnati, Cincinnati, Ohio. (52). 1905. **F K**
- Kuowlton, A. A., University of Utah, Salt Lake City, Utah. (60).
- Knowlton, Frank P., M. D., Professor of Physiology, Syracuse University Medical College, Syracuse, N. Y. (58). **K**
- Knowlton, John G. W., M. D., Exeter, N. H. (60). **K**
- Knox, Miss Alice A., 10 Watchung Ave., Upper Montclair, N. J. (60). **G**
- Knox, Francis Henry, E. E., Spartausburg, S. C. (50). **A B C D**
- Knox, Geo. Platt, Assistant Superintendent of Instruction, St. Louis Public Schools, St. Louis, Mo. (53). **I L**
- Knox, Rev. George William, Professor of Philosophy and History of Religion, Union Theological Seminary, New York, N. Y. (55). **H I**
- Knox, Henry Hobart, E. M., 82 Beaver St., New York, N. Y. (50). **D E**
- Knox, James H. M., Jr., M. D., 804 Cathedral St., Baltimore, Md. (60). **K**
- *Kober, Geo. Martin, M. D., LL. D., Professor of Hygiene, 1819 Q St. N. W., Washington, D. C. (40). 1896. **H K**
- Koch, Ernest Herman, Jr., Maplewood, N. J. (58). **A D L**
- Koch, Julius A., Ph. D., Bluff and Pride Sts., Pittsburg, Pa. (58). **B C K**
- *Koch, Waldemar, Ph. D., Associate Professor of Pharmacology, University of Chicago, Chicago, Ill. (53). 1906. **C K**
- Koelker, William F., 625 Mendota Court, Madison, Wis. (60). **C**

- Koenig, Adolph, M. D., 1111 Westinghouse Building, Pittsburg, Pa. (50).
F G K
- *Kofoid, Charles Atwood, Ph. D., Professor of Zoology, University of California, Berkeley, Cal. (48). 1899. **F**
- Kohler, Henry L., 3333 Nebraska Ave., St. Louis, Mo. (60). **C**
- Kohlsaatt, John E. C., 1739 Eastern Ave., Cincinnati, Ohio. (58).
E F G
- Kolbenheyer, Frederick, M. D., 2006 Lafayette Ave., St. Louis, Mo. (51). **K**
- *Kollock, Miss Lily G., University of Illinois, Urbana, Ill. (57). 1909. **C**
- Kong, Dr. S. T., E. M., Gen. Mgr., Imperial Smelting Works, Changsha, China. (61). **D**
- Kornhauser, Sidney I., 44 College House, Cambridge, Mass. (61). **F**
- Korssell, Claus F. P., M. D., 5502 Indiana Ave., Chicago, Ill. (60). **K**
- *Kortright, Frederic Lawrence, Professor of Chemistry, West Virginia University, Morgantown, W. Va. (55). 1908. **C**
- Kotinsky, Jacob, R. F. D. No. 4, Moorestown, N. J. (58). **F I**
- Kotz, Adam L., M. D., 32 South 4th St., Easton, Pa. (58). **K**
- Koues, Miss Elizabeth L., 211 West 102d St., New York, N. Y. (41). **I**
- Kovarik, Alois F., Physical Laboratory, University of Manchester, Manchester, England. (58). **B**
- Kower, Hermann, C. E., University of California, Berkeley, Cal. (58). **D**
- *KRAEMER, HENRY, Ph. D., 145 North 10th St., Philadelphia, Pa. (47). 1901. **G**
- *Kraus, Edward Henry, Ph. D., University of Michigan, Ann Arbor, Mich. (50). 1906. **C E**
- Krause, Otto H., Prospect Ave., Hackensack, N. J. (50). **B C D E**
- Krauss, Frederick G., Hawaii Agricultural Experiment Station, Honolulu, Hawaii. (58). **G**
- Krauss, Victor P., 2847 Bainbridge Ave., Bedford Park, New York, N. Y. (60). **C**
- Krécsy, Prof. Béla, vi Bulyovsky u. 26, Budapest, Hungary. (41). **C L**
- *Kremers, Edward, Ph. D., Professor of Pharmaceutical Chemistry, University of Wisconsin, Madison, Wis. (47). 1901. **C**
- Kress, Otto, 438 West 116th St., New York, N. Y. (58). **C**
- Kress, Palmer J., M. D., 24 South Seventh St., Allentown, Pa. (51). **K**
- Kressmann, Fred W., 210 East Clark St., Champaign, Ill. (60). **C**
- Kretz, Walter C., Ph. D., 1115 West State St., Trenton, N. J. (54). **A D**
- Kribs, Herbert Guy, Ph. D., Chestnut Hill, Philadelphia, Pa. (53). **F**
- *Kroeber, Alfred L., Ph. D., Affiliated Colleges, San Francisco, Cal. (47). 1901. **H**
- Kroek, Louis Samuel, College Park, San Jose, Cal. (60).
- Krohn, William O., M. D., Ph. D., Heyworth Building, Chicago, Ill. (60). **K**
- Krummel, Louis C., M. E., Clinton, Conn. (58). **D**
- Kudlich, Herman C., 299 Broadway, New York, N. Y. (57).
- Kuehne, John Matthias, 716 West 23d St., Austin, Tex. (58). **B**

- Kuh, Sydney, M. D., 103 State St., Chicago, Ill. (54). **HK**
- Kummel, Henry Barnard, Ph. D., State Geologist of New Jersey, Trenton, N. J. (58). **E**
- Kummer, Frederic Arnold, C. E., President, United States-Wood Preserving Co., 29 Broadway, New York, N. Y. (51). **D**
- Kunerth, William, 304 East Boone St., Ames, Iowa. (61).
- Kunhardt, Wheaton B., 100 Broadway, New York, N. Y. (49). **D**
- *Kunkel, Beverly Waugh, Ph. D., Sheffield Biological Laboratory, Yale University, New Haven, Conn. (55). 1909. **F**
- *Kunz, George Frederick, Ph. D., 401 Cathedral Parkway, New York, N. Y. (29). 1883. **EH**
- Kunze, Edward Joseph, M. E., Instructor in Steam and Gas Engineering, University of Wisconsin, Madison, Wis. (57). **BDL**
- Kupfer, Elsie M., M. D., 44 West 97th St., New York, N. Y. (60). **GK**
- Kutchin, Mrs. Harriet Lehmann, 527 Ford St., Missoula, Mont. (58). **K**
- *Lachman, Arthur, Ph. D., 3037 Wheeler St., Berkeley, Cal. (50). 1901. **CDK**
- *Ladd, Edwin Fremont, Professor of Chemistry, Agricultural College, Fargo, N. Dak. (36). 1889. **C**
- Ladd, George Trumbull, D. D., LL. D., Professor of Philosophy, Yale University, New Haven, Conn. (60). **H**
- Ladd, James B., Real Estate Trust Building, Philadelphia, Pa. (54). **D**
- *La Fetra, Linnaeus Edford, M. D., 113 East 61st St., New York, N. Y. (50). 1906. **FHK**
- *Laflamme, Prof. J. C. K., Laval University, Quebec, Canada. (29). 1887. **EG**
- *La Flesche, Francis, 214 First St. S.E., Washington, D. C. (33). 1885. **H**
- Lagai, George, Ph. D., Richmond Hill, L. I., N. Y. (58). **CFGKL**
- Lahee, Fred. H., 44 Langdon St., Cambridge, Mass. (60).
- Lahey, Frank H., M. D., 827 Boylston St., Boston, Mass. (60). **K**
- *Laird, Elizabeth Rebecca, Professor of Physics, Mount Holyoke College, South Hadley, Mass. (56). 1906. **B**
- Laird, George A., E. M., San Pedro, Chihuahua, Mexico. (60). **D**
- Lake, Edward N., E. E., 321 Center St., Wheaton, Ill. (60). **D**
- Lake, William Mac., M. D., Silver City, New Mexico. (60). **K**
- Lakey, Roland Treiber, 17 Fulton Ave., Rochester, N. Y. (60). **C**
- *Lamb, Daniel Smith, M. D., 2114 18th St. N. W., Washington, D. C. (40). 1894. **H**
- Lamb, Ernest Avery, C. E., 474 Madison Ave., Albany, N. Y. (60). **D**
- Lamb, Geo. Franklin, Professor of Biology, Mt. Union College, Alliance, Ohio. (57). **F**
- Lamb, Robert Scott, M. D., The Cecil, 15th and L Sts., Washington, D. C. (60). **K**
- Lamb, William Alfred, C. E., U. S. Geological Survey, Helena, Mont. (60). **DE**
- *Lambert, Alexander, M. D., 36 East 31st St., New York, N. Y. (57). 1908. **K**

- *Lambert, Preston A., Professor of Mathematics, Lehigh University, South Bethlehem, Pa. (41). 1896. **A**
- *Lambert, Samuel Waldron, M. D., Dean, College of Physicians and Surgeons, New York, N. Y. (57). 1908. **K**
- Lampard, Henry, 51 Hollowell St., Westmont, Quebec, Canada. (40).
C D E
- Lanahan, Mrs. Annie S., The Washington, Baltimore, Md. (60).
Lanahan, Joseph A., M. D., 99 Eagle St., Albany, N. Y. (60). **K**
- Lancaster, Walter Beckett, M. D., Amherst, Mass. (51). **K**
- Lance, Harold B., 2768 Bainbridge Ave., Bronx, New York, N. Y. (57).
D F G
- *Land, William Jesse Goad, Assistant in Botany, University of Chicago, Chicago, Ill. (52). 1904. **G**
- *Landacre, Francis Leroy, Professor of Zoology and Entomology, Ohio State University, Columbus, Ohio. (53) 1906. **F**
- *Landes, Henry, Professor of Geology, University of Washington, Seattle, Wash. (51). 1903. **E**
- *Landis, Prof. W. W., Dickinson College, Carlisle, Pa. (50). 1906. **A**
- Landman, Otto, M. D., 230 Michigan St., Toledo, Ohio. (60). **K**
- Landon, Francis G., Staatsburg, N. Y. (50).
- *Landreth, Olin Henry, C. E., Professor of Engineering, Union College, Schenectady, N. Y. (28). 1883. **D**
- Landrum, Robt. Dallas, Assistant Professor of Chemistry, University of Kansas, Lawrence, Kans. (58). **C D L**
- *LANE, ALFRED CHURCH, Ph. D., State Geologist, Lansing, Mich. (50). 1902. **E**
- Lane, Earl Carlton, Chang-Sha, Hunan Province, China. (60). **C**
- Lane, Gardiner Martin, 44 State St., Boston, Mass. (60).
- *Lane, Henry Higgins, Professor of Zoology, University of Oklahoma, Norman, Okla. (55). 1910. **F G**
- Lane, Horace Manley, M. D., Caixa 14, Sao Paulo, Brazil, South America. (46). **K L**
- Lane, J. Harold, 39 Catawba St., Boston, Mass. (60). **C**
- Lang, John Frederick, M. D., 933 West Fayette St., Baltimore Md. (60). **K**
- Lange, John D., Room 305, 47 West 42d St., New York, N. Y. (49).
D I L
- Langeloth, Jacob, P. O. Box 957, New York, N. Y. (57).
- *Langenbeck, Karl, 776 Beacon St., Boston, Mass. (39). 1896. **C**
- Langguth, J. William, 1828 Arthur Ave., Bronx, New York, N. Y. (60).
A
- Langland, James, *Daily News* Office, Chicago, Ill. (58).
- Langley, O. Velpeau, M. D., Camp Hill, Ala. (60). **K**
- *Langmann, Gustav A., M. D., 121 West 57th St., New York, N. Y. (39). 1907. **G K**
- Langmuir, Irving, Gen. Electric Co., Schenectady, N. Y. (60). **C**

MEMBERS AND FELLOWS.

- *Langsdorf, Alexander Suss, Dean, School of Engineering and Professor of Electrical Engineering, Washington University, St. Louis, Mo. (50). 1904. **BD**
- *Langworthy, Charles Ford, Ph. D., U. S. Department of Agriculture, Washington, D. C. (56). 1908. **C**
- Lankford, Henry M., M. D., Leavenworth, Kans. (60). **K**
- Lankford, John S., M. D., San Antonio, Tex. (60). **K**
- Lansing, John Ernest, Hobart College, Geneva, N. Y. (52). **CE**
- Lansingh, Van Rensselaer, E. E., 50 Church St., New York, N. Y. (60). **D**
- Lantz, Miss Willie A., Teacher of Science, Woman's College, Frederick, Md. (54). **FG**
- *Lanza, Gaetano, Professor of Theoretical and Applied Mechanics, Massachusetts Institute of Technology, Boston, Mass. (29). 1882. **ABD**
- Laramy, Robert Edward, Superintendent of Schools, 511 Gay St., Phoenixville, Pa. (51). **EH**
- Larchar, Arthur B., Great Works, Me. (58). **C**
- *LARKIN, EDGAR L., Director, Lowe Observatory, Echo Mountain, Cal. (51). 1903. **A**
- Larkin, John Charles, M. D., Hillsboro, Ohio. (54). **K**
- Larned, Charles W., 1327 Park Ave., Baltimore, Md. (60).
- Larned, S. J., 203 Washington St., Chicago, Ill. (58).
- Larner, Chester W., M. E., Wellman-Seaver-Morgan Co., Cleveland, Ohio. (60). **D**
- Larrabee, Austin P., 548 Mathewson Ave., Wichita, Kansas. (54). **F**
- Larsen, L. David, H. S. P. A. Experiment Station, Honolulu, Hawaii. (60). **G**
- Larson, Ole S., care Scandinavian American Bank, Seattle, Wash. (58).
- *Lasché, Alfred J. M., 629 28th St., Milwaukee, Wis. (60). 1910. **C**
- Lass, W. P., E. M., Treadwell, Alaska. (60). **D**
- Lathbury, B. Brentnall, C. E., 15 Mt. Vernon Place, West, Baltimore, Md. (51). **D**
- Lathrop, Bryan, 75 Old Colony Building, Chicago, Ill. (58).
- Lathrop, Moses Craft, M. D., 16 St. John St., Dover, N. H. (60). **K**
- Latta, James Edward, Teacher of Physics, University of N. C., Chapel Hill, N. C. (54). **B**
- Latta, John Milton, M. D., 115 North Lawrence Ave., Wichita, Kans. (54). **HIK**
- Lauder, George, 7403 Penn Ave., Pittsburg, Pa. (50).
- Langhlin, Charles E., M. D., Superintendent, South Indiana Hospital for Insane, Evansville, Ind. (58). **DHIK**
- Laughlin, Harry Hamilton, State Normal School, Kirksville, Mo. (60). **F**
- Lauman, George Nieman, Assistant Professor of Rural Economy, Cornell University, Ithaca, N. Y. (50). **IL**
- Laurens, Henry, 1727 Cambridge St., Cambridge, Mass. (61). **F**
- Lavagnino, G., E. M., 593 East California St., Pasadena, Cal. (60). **D**

MEMBERS AND FELLOWS.

- Lavers, Enoch C., Ph. D., Box 376, Pen Argyl, Pa. (54). **A L**
- Lavery, Charles J., M. D., Fort Pierre, S. D. (60). **K**
- *Laves, Kurt, Ph. D., Associate Professor of Astronomy, University of Chicago, Chicago, Ill. (58). 1909. **A**
- Law, Benedict W., Collins, N. Y. (45). **E**
- La Wall, Charles H., Analytical and Consulting Chemist, 39 South 10th St., Philadelphia, Pa. (58). **C**
- Lawbaugh, Elmer Arthur, 716 Oregonian Building, Portland, Oregon. (52). **K**
- Lawford Jasper M., 718 North Howard St., Baltimore, Md. (58). **F**
- *Lawrence, A. E., 53 Devonshire St., Boston, Mass. (49). 1906. **B**
- Lawrence, Florus F., M. D., Chief of Staff and Surgeon, Lawrence Hospital, Columbus, Ohio. (53). **K**
- Lawrence, George Alfred, M. D., 675 Madison Ave., New York, N. Y. (57). **H K**
- *Lawrence, Harry E., University of Rochester, Rochester, N. Y. (44). 1906. **B**
- Lawrence, James W., Professor of Mechanical Engineering, State Agricultural College, Fort Collins, Colo. (50). **D**
- Lawrence, William Evans, Instructor in Botany, Oregon Agricultural College, Corvallis, Ore. (60). **G**
- Lawrie, Harold N., E. M., 622 Worcester Building, Portland, Oregon. (58). **D**
- *Lawson, Andrew C., Professor of Geology and Mineralogy, University of California, Berkeley, Cal. (50). 1901. **E**
- Lawton, William Henry, C. E., 24 Bellevue Ave., Newport, R. I. (60). **D**
- Lay, Henry Champlin, C. E., E. M., U. S. Deputy Mineral Surveyor, Telluride, Colo. (50). **E**
- Laycock, Miss Mary J., Watseka, Ill. (60). **A**
- Lazell, Ellis W., Ph. D., care A. S. Spackman Engineering Co., 42 North 16th St., Philadelphia, Pa. (51). **C**
- *Lazenby, William R., Professor of Forestry, Ohio State University, Columbus, Ohio. (30). 1882. **G I L**
- Lea, Charles M., 708 Sansom St., Philadelphia, Pa. (58).
- *Leach, Mary F., Ph. D., Professor of Chemistry, Western College, Oxford, Ohio. (44). 1896. **C F K**
- Leaf, Carl E., 5144 North Spaulding Ave., Winnemac Station, Chicago, Ill. (60). **C**
- Leal, Manuel T., M. D., 1120 Farragut St., Laredo, Tex. (58). **K**
- *Leaming, Edward, 437 West 59th St., New York, N. Y. (50). 1901. **C**
- Leary, Timothy, M. D., Tufts College Medical School, Boston, Mass. (60). **K**
- Leavenworth, Chas. Stanley, Hamden, Conn. (58). **C K**
- Leavenworth, William S., Olivet College, Olivet, Mich. (60). **C**
- *Leavitt, Frank M., M. E., 133 Plymouth St., Brooklyn, N. Y. (51). 1904. **D**
- *Leavitt, Miss Henrietta S., 641 Church St., Beloit, Wis. (55). 1907. **A**

MEMBERS AND FELLOWS.

- *Le Baron, John Francis, C. E., E. M., Ipswich, Mass. (51). 1903.
DEFH
- *Le Brun, Mrs. Michel M., 8 Mountain Ave., Montclair, N. J. (35).
1892. **G**
- Le Clear, Thomas, care Fraser & Co., 563 Fifth Ave., New York, N. Y.
(58). **C**
- Le Clerc, J. Arthur, Ph. D., Bureau of Chemistry, U. S. Department of
Agriculture, Washington, D. C. (58). **CG**
- Le Conte, Louis Julian, C. E., P. O. Box 482, Oakland, Cal. (51). **D**
- Le Conte, Robert Grier, M. D., 1625 Spruce St., Philadelphia, Pa. (51).
K
- *Le Count, E. R., M. D., 6026 Monroe Ave., Chicago, Ill. (58). 1909. **K**
- *Ledoux, Albert R., Ph. D., 99 John St., New York, N. Y. (26). 1881.
CD
- Lee, Blewett, 1 Park Row, Chicago, Ill. (58). **HI**
- *Lee, Edwin, Professor of Chemistry, Allegheny College, Meadville, Pa.
(53). 1908. **C**
- Lee, Ernest Eugene, E. E., Assistant Engineer, Isthmian Canal Com-
mission, Culebra, C. Z. (60). **BD**
- *Lee, Frederic Schiller, Ph. D., Professor of Physiology, Columbia Uni-
versity, New York, N. Y. (49). 1901. **K**
- Lee, Marguerite Thouron, 66 West 95th St., New York, N. Y. (60). **AF**
- Lee, Oliver J., Yerkes Observatory, Williams Bay, Wisconsin. (61). **A**
- *Lee, Thomas G., M. D., Professor of Histology and Embryology, Uni-
versity of Minnesota, Minneapolis, Minn. (55). 1907. **FK**
- *Lee, Prof. Willis Thomas, U. S. Geological Survey, Washington, D. C.
(47). 1903. **E**
- Leeds, Alexander B., M. D., Chickasha, Okla. (58). **K**
- Leeds, Charles Carley, 5508 Elmer St., Pittsburg, Pa. (58). **AD**
- *Leeds, Morris E., 4901 Stenton Ave., Philadelphia, Pa. (50). 1906. **D**
- *Lefavour, Henry, Ph. D., LL. D., President, Simmons College, Boston,
Mass. (42). 1894. **IL**
- *Le Fevre, Egbert, M. D., 52 West 56th St., New York, N. Y. (57).
1909. **KL**
- *Lefevre, George, Ph. D., Professor of Zoology, University of Missouri,
Columbia, Mo. (55). 1908. **F**
- Leffler, Burton Rutherford, C. E., 4409 Franklin Ave., Cleveland, Ohio.
(58). **D**
- *LeGras, Gustave, Associate Professor of Mathematics, College of the City
of New York, New York, N. Y. (54). 1906. **AIL**
- LEHMAN, MEYER H., 667 Madison Ave., New York, N. Y. (57).
- *Lehmer, Derrick Norman, Ph. D., Assistant Professor of Mathematics,
University of California, Berkeley, Cal. (60). 1910. **A**
- *Leidy, Joseph, Jr., M. D., 1319 Locust St., Philadelphia, Pa. (51). 1906.
K
- Leighton, Joseph Alexander, Ph. D., Professor of Philosophy, Hobart
College, Geneva, N. Y. (60). **H**

- *Leith, Charles Kenneth, Professor of Economic and Structural Geology,
University of Wisconsin, Madison, Wis. (53). 1906. **E**
Leitz, Ernst, 30 East 18th St., New York, N. Y. (60).
Leland, George A., M. D., 354 Commonwealth Ave., Boston, Mass. (58).

K

- *Leland, Ora Miner, Assistant Professor of Astronomy and Geodesy, Cor-
nell University, Ithaca, N. Y. (54). 1910. **ABDL**
Leman, William T., P. O. Box 900, St. Louis, Mo. (58). **BCDE**
Lemley, C. McC., C. E., Assistant Engineer, B. & O. R. R. Co., Morgan-
town, W. Va. (51). **D**
Lemon, James S., Ph. D., 31 Park St., Gardner, Mass. (52). **H**
Leng, Charles William, 437 Columbia St., West New Brighton, Staten
Island, N. Y. (54). **F**
*Lengfeld, Felix, Ph. D., Consulting and Manufacturing Chemist, 1804
Fillmore St., San Francisco, Cal. (51). 1904 **C**
*Lenher, Victor, Ph. D., Professor of Chemistry, University of Wisconsin,
Madison, Wis. (52). 1904. **C**
Lenk, Walter S., care Lenk Wine Co., West Toledo, Ohio. (60). **C**
Lennes, Nels Johann, Mass. Institute of Technology, Boston, Mass.
(60). **A**
*Lennon, Prof. William H., State Normal School, Brockport, N. Y. (31).
1894. **CH**
Leof, Morris V., M. D., 1700 North Franklin St., Philadelphia, Pa.
(60). **K**
*Leonard, Arthur Gray, Ph. D., Professor of Geology, University of North
Dakota, University, N. D. (58). 1910. **E**
Leonard, Heman Burr, Ph. D., University of Oregon, Eugene, Ore.
(60). **A**
Leonard, John William, Editor, "Who's Who in America," 900 Ogden
Ave., New York, N. Y. (51). **I**
Leonard, Ward H., M. D., 608 Southwest Boulevard, Kansas City, Mo.
(60). **K**
Lerche, William, M. D., Lowry Arcade, St. Paul, Minn. (60). **K**
Lesh, B., 1445 East 40th St., Cleveland, Ohio. (60). **D**
Leshner, Arthur L., 670 Broadway, New York, N. Y. (57).
Lesley, Robert W., 604 Pennsylvania Building, Philadelphia, Pa. (54). **C**
Leslie, George L., Director, Psychological Clinic, Los Angeles City Schools,
Health Department, Los Angeles, Cal. (58). **H**
Lester, Oliver Clarence, Ph. D., Professor of Physics, University of Colo-
rado, Boulder, Colo. (58). **AB**
Leuba, Prof. James H., Psychological Laboratory, Bryn Mawr College,
Bryn Mawr, Pa. (58). **H**
*Levene, Phoebus Aaron Theodore, M. D., 230 West 139th St., New York,
N. Y. (53.) 1906. **CK**
Levensaler, Lewis A., E. M., Kennecott, via Valdez, Alaska. (60). **D**
*Leverett, Frank, 312 North Thayer St., Ann Arbor, Mich. (37). 1891.

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- LEVERETT, GEORGE V., 66 Beacon St., Boston, Mass. (60).
 Leveson, Montague Richard, M. D., 927 Grant Ave., Bronx, New York,
 N. Y. (54). **F H I K L**
 Levin, A. M., M. E., 910 Monadnock Building, Chicago, Ill. (60). **D**
 *Levy, Ernest C., M. D., 216 Shafer St., Richmond, Va. (54). 1906. **C K**
 *Lewis, A. B., C. E., Seward, Alaska. (55). 1908. **D**
 *Lewis, Albert Buell, Field Museum of Natural History, Chicago, Ill.
 (58). 1909. **H**
 Lewis, Bertha, M. D., Box 11, Malvern, Pa. (54). **I K L**
 Lewis, Charles Edward, Ph. D., Experiment Station, Orono, Me. (60). **G**
 LEWIS, CLARENCE MCKENZIE, care Wm. Salomon & Co., 25 Broad St.,
 New York, N. Y. (47). **D**
 Lewis, Daniel C., Millville, N. J. (57). **C**
 *Lewis, E. Percival, Ph. D., Professor of Physics, University of California,
 Berkeley, Cal. (53). 1905. **B**
 Lewis, Frederic T., M. D., 76 Oxford St., Cambridge, Mass. (60). **K**
 Lewis, George Smith, 746 State St., Springfield, Mass. (44). **G**
 *Lewis, Gilbert N., Ph. D., Massachusetts Institute of Technology, Boston,
 Mass. (60). 1910. **C**
 Lewis, Major I. N., U. S. A., Fort Monroe, Va. (58). **D**
 Lewis, Dr. Isaac McKinney, University of Texas, Austin, Texas. (61). **G**
 Lewis, Ivey Foreman, Professor of Biology, Randolph-Macon College,
 Ashland, Va. (60). **G**
 *Lewis, Joseph Volney, Hertzog Hall, Rutgers College, New Brunswick,
 N. J. (45). 1900. **C E**
 Lewis, Ransome T., C. E., 412 West Clinton St., Elmira, N. Y. (60). **D**
 Lewis, Robert S., E. M., McGill, Nevada. (60). **D**
 Lewis, Rollin C. W., M. E., Yale and Towne Manufacturing Co., Stam-
 ford, Conn. (60). **D**
 *Lewis, Warren H., M. D., Associate Professor of Anatomy, Johns Hopkins
 University, Baltimore, Md. (57). 1909. **K**
 *Lewis, Wilfred, President, The Tabor Manufacturing Co., 5901 Drexel
 Road, Philadelphia, Pa. (51). 1906. **D**
 Lewisohn, Adolph, 9 West 57th St., New York, N. Y. (57).
 Lewisohn, Julius A., E. M., 9 West 57th St., New York, N. Y. (60). **D**
 Lewton, Frederick Lewis, U. S. Department of Agriculture, Washington,
 D. C. (54). **C F G I**
 Lewton-Brain, L., Director, Division of Pathology and Physiology, H. S.
 P. A. Experiment Station, Honolulu, Hawaii. (55). **G**
 Libbey, Frederick A., 14 East 74th St., New York, N. Y. (57).
 *Libbey, William, Professor of Physical Geography, Princeton, N. J.
 (29). 1887. **E**
 Libby, George W., M. D., Traders Block, Spokane, Wash. (60). **K**
 Libman, Emanuel, M. D., 180 East 64th St., New York, N. Y. (60). **K**
 Lichtenthaeler, Robert A., R. I. Agric. Exp. Station, Kingston, R. I.
 (58). **B C D E F G K L**
 Lichthardt, G., Jr., 1800 Capt. Ave., Sacramento, Cal. (50). **C**

- Lichty, Daniel, M. D., Masonic Temple, Rockford, Ill. (51). **K**
- Lichty, David Martin, Ph. D., Chemical Laboratory, Ann Arbor, Mich. (58). **C**
- Lichty, John A., M. D., 4634 Fifth Ave., Pittsburg, Pa. (60). **K**
- Lieb, John William, Jr., 57 Duane St., New York, N. Y. (57).
- Lieber, Hugo, 1 Platt St., New York, N. Y. (53). **C**
- Liebhmann, Charles Joseph, 36 Forrest St., Brooklyn, N. Y. (58).
- Life, Andrew C., Assistant Professor of Biology, University of Southern California, Los Angeles, Cal. (60). **G**
- Lightfoot, Thos. Montgomery, Assistant Professor of Physical Science, Central High School, Philadelphia, Pa. (51). **G**
- Lightner, Calvin R., M. D., 2313 Washington Ave., St. Louis, Mo. (53). **K**
- Lihme, B., Chemical Engineer, La Salle, Ill. (57). **C**
- *Lillie, Frank R., Ph. D., Professor of Zoology and Embryology, University of Chicago, Chicago, Ill. (50). 1901. **F**
- *Lillie, Ralph S., University of Pennsylvania, Philadelphia, Pa. (58). 1909. **FK**
- Lincoln, Francis Church, Professor of Geology and Mineralogy, Montana School of Mines, Butte, Mont. (57). **DE**
- Lincoln, John J., E. M., Elkhorn, W. Va. (60). **D**
- Lindahl, Josua, Ph. D., 5700 Peoria St., Chicago, Ill. (55). **F**
- Lindenkohl, Henry, U. S. Coast and Geodetic Survey, Washington, D. C. (47). **E**
- *Lindenthal, Gustav, C. E., 45 Cedar St., New York, N. Y. (37). 1891. **DFI**
- *Lindgren, Waldemar, U. S. Geological Survey, Washington, D. C. (53). 1906. **E**
- Lindley, Curtis H., E. M., 2015 Pacific Ave., San Francisco, Cal. (60). **D**
- *Lindley, Ernest Hiram, Ph. D., Professor of Psychology, Indiana University, Bloomington, Ind. (51). 1905. **H**
- Lindsay, Alexander M., Rochester, N. Y. (41).
- Lindsay, John D., 34 West 11th St., New York, N. Y. (57). **I**
- *Lindsay, Samuel McCune, Ph. D., Professor of Social Legislation, Columbia University, New York, N. Y. (54). 1906. **IL**
- Lindsay, Walter, M. D., Huntington, L. I., N. Y. (60). **K**
- *Lindsey, Edward, Warren, Pa. (48). 1906. **HI**
- Lindsey, Joseph B., Ph. D., 47 Lincoln Ave., Amherst, Mass. (58). **CK**
- Lines, Edwin Fuller, University of Illinois, Urbana, Ill. (54). **E**
- Linford, James Henry, President, Brigham Young College, Logan, Utah (52). **FG**
- *Ling, Charles Joseph, Ph. D., Professor of Physics and Astronomy, Allegheny College, Meadville, Pa. (50). 1901. **AB**
- *Ling, George Herbert, Ph. D., Adjunct Professor of Mathematics, Columbia University, New York, N. Y. (52). 1906. **A**
- LINHART, SAMUEL BLACK, D. D., Secretary and Professor of Biblical Literature and Ethics, University of Pittsburg, Pittsburg, Pa. (56).
- Link, J. Joseph, M. D., Metropolitan Building, St. Louis, Mo. (58).

- Link, Joseph A., M. D., Springfield, Ohio. (60). **K**
 Link, Theodore Carl, Carleton Building, St. Louis, Mo. (51). **B E F G H K**
 *Linn, Alvin Frank, Ph. D., Professor of Chemistry, Wittenberg College, Springfield, Ohio. (50). 1901. **C**
 Linney, William H., E. M., 2805 West Mission, Spokane, Wash. (60). **D**
 *Linton, Edwin, Ph. D., Professor of Biology, Washington and Jefferson College, Washington, Pa. (51). 1905. **F**
 *Linville, Henry Richardson, Ph. D., 6 Madison Ave., Jamaica, N. Y. (49). 1906. **FL**
 Lipke, Joseph, Massachusetts Institute of Technology, Boston, Mass. (58). **A**
 Lipman, F. L., Vice-President, Wells Fargo Nevada National Bank, San Francisco, Cal. (58). **I**
 Lippincott, Warren B., 345 Lafayette St., Denver, Colo. (60). **C**
 Lisboa, Miguel Arrojado Ribeiro, E. M., Rua Santos Dumond 3, Petropolis, Rio de Janeiro, Brazil, S. A. (60). **D**
 Lischer, Benno Edward, M. D., 504 Humboldt Building, St. Louis, Mo. (53). **K**
 *Litchfield, Lawrence, M. D., 5431 Fifth Ave., Pittsburg, Pa. (51). 1909. **K**
 *Littell, Frank B., Professor of Astronomy, U. S. Naval Observatory, Washington, D. C. (49). 1903. **A**
 Litterer, William, M. D., care Vanderbilt Medical College, Nashville, Tenn. (60). **K**
 Litterst, Joseph, 203 East Lehman St., Lebanon, Pa. (60). **C**
 *Little, Arthur D., Chemist, 93 Broad St., Boston, Mass. (54). 1906. **C**
 Little, C. A., 147 West Bridge St., Elyria, Ohio. (60). **C**
 Little, Clarence C., Goddard Ave., Brookline, Mass. (61). **F**
 Little, Homer P., Ph. D., Colby College, Waterville, Me. (61). **E**
 *Littlehales, G. W., 2132 Le Roy Place, Washington, D. C. (52). 1904. **ABDE**
 Livermore, Thomas Leonard, Jr., E. M., Telluride, Colo. (58). **D**
 Livermore, Col. William R., U. S. A., Retired, 17 Hereford St., Boston, Mass. (61). **ABD**
 *Livingston, Burton Edward, Ph. D., Johns Hopkins University, Baltimore, Md. (53). 1906. **G**
 Livingston, Luther S., Scarsdale, N. Y. (57).
 *Lloyd, Francis Ernest, Professor of Botany, Alabama Polytechnic Institute, Auburn, Ala. (48). 1901. **G**
 *Lloyd, John Uri, Ph. D., care The Lloyd Library, 224 West Court St., Cincinnati, Ohio. (38). 1890. **CF**
 *Lloyd, Morton G., Ph. D., Bureau of Standards, Washington, D. C. (52). 1906. **ABDI**
 Lloyd, Thomas P., M. D., Shreveport, La. (60). **K**
 Lober, John B., Bryn Mawr, Pa. (57).
 *Lochead, William, Professor of Biology, Macdonald College, Quebec, Canada. (51). 1906. **FG**

- Lockwood, Cornelius Wygant, 917 Madison Ave., Plainfield, N. J. (51).
BDL
- Lockwood, Edwin Hoyt, Ph. D., Assistant Professor of Mechanical Engineering, Yale University, New Haven, Conn. (50). **D**
- *Loey, William Albert, Ph. D., Professor of Zoology, Northwestern University, Evanston, Ill. (58). 1910. **F**
- Lodholz, Edward, M. D., Demonstrator of Physiology, University of Pennsylvania, Philadelphia, Pa. (53). **K**
- Loeb, Hanau W., M. D., 537 North Grand Ave., St. Louis, Mo. (60). **K**
- Loeb, James, P. O. Box 1193, New York, N. Y. (57).
- *Loeb, Leo, M. D., Director, Pathological Dept., St. Louis Skin and Cancer Hospital, St. Louis, Mo. (51). 1905. **FK**
- Loeb, Milton Charles, 336 York St., Jersey City, N. J. (60). **C**
- *Loeb, Morris, Ph. D., 273 Madison Ave., New York, N. Y. (36). 1889.
BC
- Loevenhart, A. S., University of Wisconsin, Madison, Wis. (60). **CF**
- *Loew, Oscar, Ph. D., München Hygienic Institute, München, Germany. (49). 1900. **K**
- *Loewenstein, Louis C., 16 Wolcott Road, Lynn, Mass. (54). 1904. **D**
- Loewy, Benno, 206 and 208 Broadway, New York, N. Y. (41).
- Logan, Frank G., 2919 Prairie Ave., Chicago, Ill. (42). **H**
- Loguin, Alexander J., E. E., General Delivery, West Allis Station, Milwaukee, Wis. (58). **D**
- Lomb, Adolph, 537 St. Paul St., Rochester, N. Y. (41).
- Lomb, Henry Charles, 281 Barrington St., Rochester, N. Y. (43). **B**
- *Lombard, Warren Plimpton, M. D., 805 Oxford Road, Ann Arbor, Mich. (58). 1909. **KL**
- Long, Francis A., M. D., Madison, Nebr. (60). **K**
- Long, Henry C., 617 Tremont Building, Boston, Mass. (60).
- Long, J. A., Ph. D., Instructor in Zoology, University of Cal., Berkeley, Cal. (61). **F**
- *Long, John Harper, Professor of Chemistry, Northwestern University Medical School, 2421 Dearborn St., Chicago, Ill. (41). 1895. **C**
- Long Morris C., 526 Main St., Kansas City, Mo. (58). **H**
- Long, William Henry, Jr., North Texas State Normal School, Denton, Texas. (50).
- Longaker, Daniel, M. D., 1402 North 16th St., Philadelphia, Pa. (53). **K**
- *Longden, A. C., Ph. D., Professor of Physics, Knox College, Galesburg, Ill. (49). 1901. **B**
- *Longstreth, Morris, 1416 Spruce St., Philadelphia, Pa. (54). 1906.
- Longyear, Helen McGraw, 155 East 37th St., New York, N. Y. (61).
BI
- Lonsdale, James, M. D., Dale, Iowa. (60). **K**
- *Loomis, Elmer Howard, Professor of Physics, Princeton University, Princeton, N. J. (54). 1906. **B**
- Loomis, Frederic B., Ph. D., Assistant in Zoology, Amherst College, Amherst, Mass. (50). **F**

MEMBERS AND FELLOWS.

- Loomis, Seymour C., 69 Church St., New Haven, Conn. (60). **I**
- Lord, Harold, C. E., Office of Light-House Engineer, Honolulu, Hawaii. (60). **D**
- Lord, Herbert Gardiner, Professor of Philosophy, Columbia University, New York, N. Y. (58). **H**
- Lord, John Prentiss, M. D., 3421 Farnam St., Omaha, Nebr. (55). **K**
- Lorini, Raffaele, M. D., Hotel del Coronado, Coronado Beach, Cal. (60). **K**
- Lo Sardo, Antonino, 45 West 8th St., New York, N. Y. (58). **C**
- Lothrop, Alfred P., Hartley Hall, 1120 Amsterdam Ave., New York, N. Y. (60). **C**
- Lotka, Alfred J., Room 308, U. S. Patent Office, Washington, D. C. (60). **C**
- *LOUDERBACK, GEORGE DAVIS, University of California, Berkeley, Cal. (50). 1906. **E**
- *Lough, Dr. J. E., New York University, Washington Square, New York, N. Y. (50). 1901. **F I**
- Loughlin, Gerald Francis, Ph. D., Instructor in Geology, Massachusetts Institute of Technology, Boston, Mass. (57). **E**
- *Loughridge, Robert Hills, Ph. D., Professor of Agricultural Chemistry, University of California, Berkeley, Cal. (21). 1874. **C E**
- Lounsbury, Charles Pugsley, Department of Agriculture, Cape Town, South Africa. (52). **F**
- Lounsbury, William C., Superintendent, Filtration Plant, 1518 Tower Ave., Superior, Wis. (58). **C**
- Louria, Leon, M. D., 249 Hewes St., Brooklyn, N. Y. (60). **K**
- Love, A. Cavitt, care Beaumont Irrigation Co., Beaumont, Tex. (58). **D**
- *Love, Edward G., 80 East 55th St., New York, N. Y. (24). 1882. **C**
- *Love, James Lee, Lincolnton, N. C. (54). 1906. **A**
- Lovejoy, Arthur Oncken, Ph. D., Professor of Philosophy, Johns Hopkins University, Baltimore, Md. (58). **H**
- Lovejoy, Frank William, M. E., 22 Seneca Parkway, Rochester, N. Y. (60). **D**
- Lovejoy, J. R., Vice-President, General Electric Co., Schenectady, N. Y. (50). **D**
- Lovelace, B. F., University, Ala. (60). **C**
- LOVELAND, HORACE HALL, M. D., Republic, Mich. (51). **K**
- Lovell, John H., Waldoboro, Me. (58). **F G**
- *Lovett, Edgar Odell, Ph. D., LL. D., President, The Rice Institute, Houston, Tex. (51). 1902. **A L**
- Low, A. A., Columbia Heights, Brooklyn, N. Y. (43). **A**
- *Low, A. P., Geological Survey of Canada, Ottawa, Canada. (60). 1910. **E**
- Low, Clarence F., care Liverpool, London and Globe Insurance Co., New Orleans, La. (52). **F G H I K L**
- *Low, Hon. Seth, LL. D., 30 East 64th St., New York, N. Y. (29). 1890.
- Low, Wilson H., 220 South 38th Ave. Omaha, Nebr. (60). **C**

- *Lowber, James William, Ph. D., LL. D., 113 East 18th St., Austin, Tex. (50). 1906. **A E H I L**
- Lowe, Ephraim Noble, M. D., Professor of Geology and Mineralogy, The University of Mississippi, University, Miss. (55). **E**
- Lowe, Houston, V. P., The Lowe Bros. Co., Dayton, Ohio. (52). **C I L**
- Lowe, Morgan M., M. D., 621 Opelousas Ave., Division A, Algiers, La. (55). **K**
- Lowell, Frederick E., 53 State St., Boston, Mass. (60).
- Lowell, Miss Lucy, The Ludlow, St. James Ave., Boston, Mass. (60).
- *Lowell, Percival, LL. D., Professor of Astronomy, Massachusetts Institute of Technology, Boston, Mass. (36). 1896. **A**
- Lowell, Russell C., 420 Hope St., Providence, R. I. (51). **A D L**
- *Lowenstein, Arthur, 513 East 50th St., Chicago, Ill. (58). 1910. **C**
- Lower, William E., M. D., 6810 Euclid Ave., Cleveland, Ohio. (58). **K**
- *Lowie, Robert H., 1216 Boston Road, Bronx, New York, N. Y. (60). 1910. **H**
- Lowman, William R., M. D., Orangeburg, S. C. (60). **K**
- Lucas, Anthony F., E. M., 1406 16th St. N. W., Washington, D. C. (50). **D E**
- *Lucas, Daniel Ralph, Ph. D., 65 West 83d St., New York, N. Y. (57). 1908. **C K**
- Lucius, Albert, C. E., 607 Potter Building, 38 Park Row, New York, N. Y. (58) **D**
- Lucke, Charles E., M. E., Columbia University, New York, N. Y. (60). **D**
- Luckey, Geo. W. A., Ph. D., Professor of Education, University of Nebraska, Lincoln, Nebr. (56). **H L**
- Ludlow, Clara Southmayd, Ph. D., 603 The Ethelhurst, 15th and I. Sts. N. W., Washington, D. C. (54). **F K**
- *Ludlow, Col. Henry Hunt, U. S. A., Coast Artillery Corps, Fort Caswell, N. C. (54). 1906. **A D**
- Ludlow, Col. Jacob Lott, C. E., Winston-Salem, N. C. (50). **A B D**
- Luebker, Otto, American Audit Co., Colorado Building, Washington, D. C. (50). **G**
- Luehrs, Daniel M., M. E., care McCreery Engineering Co., Toledo, Ohio. (58). **D**
- Lukens, Herman T., Ph. D., 330 Webster Ave., Chicago, Ill. (55). **E L**
- Lull, Richard S., Amherst, Mass. (43). **F H**
- Lum, Miss Elizabeth S., Elizabeth, N. J. (57).
- Lumley, W. Alison, M. D., Renville, Minn. (60). **K**
- Lummis, William, 320 West 107th St., New York, N. Y. (57).
- Lund, Robert Leathan, 5968 West Cabanne Place, St. Louis, Mo. (53). **D**
- Lundholm, Eric M., M. D., 677 University Ave., St. Paul, Minn. (58). **K**
- *Lundin, Carl A. R., care Messrs. Alvan Clark and Sons, Cambridgeport, Mass. (47). 1906. **A**
- *Luquer, Lea McIlvane, Adjunct Professor of Mineralogy, Columbia University, New York, N. Y. (49). 1902. **E**

MEMBERS AND FELLOWS.

- *Lusk, Graham, Ph. D., 11 East 74th St., New York, N. Y. (54). 1906.
K
- Luther, Miss Agnes Vinton, 151 Scotland Road, South Orange, N. J. (47). **E**
- Lutman, Benjamin Franklin, Botanical Department, Vermont Agricultural Experiment Station, Burlington, Vt. (60). **G**
- Lutz, Anne M., Cytologist, Station for Experimental Evolution, Cold Spring Harbor, Long Island, N. Y. (54). **F**
- *Lutz, Frank Eugene, Ph. D., American Museum of Natural History, New York, N. Y. (53). 1909. **F**
- Lybrand, Mrs. William M., 362 Riverside Drive, New York, N. Y. (54). **I**
- *Lyford, Hon. Edwin F., Springfield, Mass. (33). 1896. **B C H**
- *Lyle, Col. David Alexander, U. S. A., care Mr. Frank Berry, Depot Quartermaster's Office, Philadelphia, Pa. (28). 1880. **D**
- Lyman, Arthur T., P. O. Box 1717, Boston, Mass. (60).
- *LYMAN, BENJ. SMITH, E. M., 708 Locust St., Philadelphia, Pa. (15). 1905. **E**
- Lyman, Chester Wolcott, International Paper Co., 30 Broad St., New York, N. Y. (50). **I**
- Lyman, David R., M. D., Wallingford, Conn. (60). **K**
- *Lyman, Elmer A., Professor of Mathematics, Michigan State Normal School, Ypsilanti, Mich. (53). 1906. **A**
- *Lyman, George Richard, Ph. D., Assistant Professor of Botany, Dartmouth College, Hanover, N. H. (57). 1909. **G**
- Lyman, Henry Herbert, 74 McTavish St., Montreal, Canada. (29). **E F**
- Lyman, James, E. E., 1038 Monadnock Bldg., Chicago, Ill. (50). **D**
- Lyman, James A., Claremont, Cal. (60). **C**
- Lyman, Rufus Ashley, M. D., University of Nebraska, Lincoln, Nebr. (60). **K**
- *LYMAN, THEODORE, Instructor in Physics, Jefferson Laboratory, Harvard University, Cambridge, Mass. (55). 1907. **B**
- Lynch, William H., Principal, Public Schools, Ozark, Mo. (52). **I**
- Lynde, Lester E., Andover, Mass. (60). **A**
- Lyon, David G., Harvard University, Cambridge, Mass. (60).
- Lyon, Elias Potter, Ph. D., Professor of Physiology, St. Louis University Medical School, St. Louis Mo. (58). **F K L**
- Lyon, Harold L., Ph. D., H. S. P. Association, Honolulu, Hawaii. (60). **K**
- Lyon, Leon Elie, C. E., P. O. Box 283, Norfolk, Va. (61). **D**
- Lyon, Marcus Ward, Jr., 48 V St. N. W., Washington, D. C. (53).
- Lyon, Ralph Albert, Hawaiian Fertilizer Co., Honolulu, Hawaii. (58). **C**
- Lyon, Scott Cary, Tulane University, New Orleans, La. (55). **B C**
- Lyon, Thomas Lyttleton, Ph. D., Professor of Experimental Agronomy, Cornell University, Ithaca, N. Y. (56). **C**
- Lyons, Albert Brown, M. D., 72 Brainard St., Detroit, Mich. (50). **CG**
- *Lyons, Robert E., Professor of Chemistry, University of Indiana, Bloomington, Ind. (51). 1906. **C**

- Lythgoe, Hermann C., 501, State House, Boston, Mass. (58). **C**
- Maas, Philip, Professor of Chemistry, Central High School, Philadelphia, Pa. (60). **C**
- *Mabery, Charles Frederick, Professor of Chemistry, Case School of Applied Science, Cleveland, Ohio. (29). 1881. **C**
- Mabee, Professor Fred C., care Union College, Alliance, Ohio. (61). **C**
- McAdam, D. J., Professor of Engineering, Washington and Jefferson College, Washington, Pa. (51). **D**
- *MacAlister, James, LL. D., President, Drexel Institute, Philadelphia, Pa. (54). 1906. **IL**
- McAllister, Addams Stratton, Ph. D., 239 West 39th St., New York, N. Y. (60). **D**
- *McAllister, Cloyd North, Ph. D., Warrensburg, Mo. (52). 1906. **HIK**
- McArthur, Lewis L., M. D., 4415 Drexel Boulevard, Chicago, Ill. (51). **K**
- *McAtee, W. L., U. S. Department of Agriculture, Washington, D. C. (54). 1906. **F**
- McBean, Duncan D., 1107-11 Park Row Building, New York, N. Y. (58). **D**
- McBerty, Frank R., E. E., 186 Weyman Ave., New Rochelle, N. Y. (60). **D**
- Macbeth, George Alexander, 717 Amberson Ave., Pittsburg, Pa. (50). **C**
- McBride, Hon. George Wickliffe, Portland, Ore. (51). **H**
- *McBride, James H., M. D., Pasadena, Cal. (51). 1909. **K**
- *Macbride, Thomas H., Ph. D., 728 East Washington St., Iowa City, Iowa. (38). 1890. **EG**
- *McBurney, Chas., M. D., 38 East 31st St., New York, N. Y. (57). 1909. **K**
- McCalla, Albert, Ph. D., 51 East 22d St., Chicago, Ill. (58). **ABG**
- McCallie, James Park, Ph. D., Highland Park Station, Chattanooga, Tenn. (57). **A**
- *MacCallum, William George, M. D., 981 Madison Ave., New York, N. Y. (60). 1910. **K**
- McCann, Thomas H., C. E., Second National Bank Building, Hoboken, N. J. (60). **D**
- McCarthy, Maurice Lawrence, 30 Maple St., Haverhill, Mass. (58). **CD**
- *McCaskey, H. D., Chief, Division of Mines, Bureau of Science, Manila, P. I. (55). 1907. **E**
- McCastline, William H., M. D., Instructor in Physical Education, Teachers College, Columbia University, New York, N. Y. (56). **K**
- McCaughey, Vaughan, Professor of Botany, College of Hawaii, Honolulu, Hawaii. (58). **HI L**
- McCaughey, William J., 1503 North Capitol St., Washington, D. C. (60). **C**
- *McCauley, Colonel C. A. H., Assistant Quartermaster-General, U. S. Army, care A. T. Lay, Highland Park, Ill. (29). 1881.
- McCauley, George Vest, 325 West Dayton St., Madison, Wis. (58). **B**

MEMBERS AND FELLOWS.

- *McCautland, Elmer James, Professor of Civil Engineering, University of Washington, Seattle, Wash. (52). 1905. **D L**
- *McCay, Le Roy Wiley, Professor of Inorganic Chemistry, Princeton, N. J. (57). 1908. **C**
- McChord, Robert Caldwell, M. D., Lebanon, Ky. (60). **K**
- McClellan, E. S., M. D., Saranac Lake, N. Y. (60). **K**
- *McClellan, John Hancock, Ph. D., Assistant Professor of Histology and Embryology, University of Illinois, Urbana, Ill. (58). 1910. **F K**
- McClelland, James H., M. D., 5th and Wilkins Aves., Pittsburg Pa. (50). **K**
- McClelland, Silas E., M. D., Decatur, Ill. (60). **K**
- *McClendon, Jesse F., Ph. D., Cornell University Medical College, New York, N. Y. (57). 1910. **F K**
- *McClintock, Emory, Ph. D., 32 Nassau St., New York, N. Y. (43). 1895. **A**
- McClintock, John T., M. D., 230 Fairchild St., Iowa City, Iowa. (58). **K**
- *McClung, Clarence Erwin, Ph. D., Professor of Zoology, University of Kansas, Lawrence, Kans. (52). 1908. **F**
- *McClung, Robert K., Professor of Physics, University of Manitoba, Winnipeg, Canada. (56). 1908. **B**
- McClure, O. D., M. E., Ishpeming, Mich. (60). **D**
- McClure, Samuel Sidney, 44-60 East 23d St., New York, N. Y. (57).
- McCollum, Burton, Assistant Professor of Physics, University of Kansas, Lawrence, Kans. (58). **B D**
- McCollum, E. V., Assistant Professor of Agricultural Chemistry, University of Wisconsin, Madison, Wis. (58). **C**
- McConnell, A. H., 626 Winthrop Ave., Chicago, Ill. (60). **A**
- McConnell, Carl P., M. D., 57 Washington St., Chicago, Ill. (58). **K**
- *McConnell, Guthrie, M. D., 4175 Washington Ave., St. Louis, Mo. (58). 1909. **K**
- McConnell, Wilbur Ross, Assistant Professor of Zoology, Pennsylvania State College, State College, Pa. (57). **F**
- McCook, John B., M. D., 396 Main St., Hartford, Conn. (60). **K**
- McCormack, Edgar Walter, C. E., San Ignacio 82, Havana, Cuba. (60). **D**
- McCormack, Joseph N., M. D., Bowling Green, Ky. (60). **K**
- McCormick, Miss Florence Anna, 5726 Drexel Ave., Chicago, Ill. (55). **F**
- McCormick, Harold F., 108 La Salle St., Chicago, Ill. (58).
- McCORMICK, REV. SAMUEL BLACK, D. D., LL. D., Chancellor, University of Pittsburg, Pittsburg, Pa. (54).
- McCourt, Walter Edw., Head of Department of Geology, Washington University, St. Louis, Mo. (57). **E**
- McCoy, William Merrill, M. D., Wenatchee, Wash. (58). **K**
- McCracken, Isabel, Ph. D., Stanford University, Cal. (54). **F K**
- *McCracken, John Henry, Ph. D., LL. D., Syndic of New York University, New York, N. Y. (52). 1907. **I**

- McCracken, William, Ph. D., State Normal School, Kalamazoo, Mich. (60). **C**
- McCraven, Bonner N., 1203 McKinney Ave., Station A, Houston, Tex. (60). **A**
- McCreary, Robert H., 10 Delaware St., Elizabeth, N. J. (60). **C**
- *McCraith, Andrew S., 121 Market St., Harrisburg, Pa. (33). 1889. **CE**
- McCullough, John Griffith, LL. D., Hall Farm, North Bennington, Vt. (57).
- McCullough, Ernest, C. E., 2147 Sherman Ave., Evanston, Ill. (61). **D**
- McCullough, Lawrence Hugh, Surveyor, Benson, S. C. (54). **CG**
- McCune, Mary Virginia, M. D., 506 West John St., Martinsburg, W. Va. (51). **K**
- McCurdy, Arthur W., 497 Esquimalt Road, Thorburn, B. C., Canada. (52). **BCDE**
- *McCurdy, Charles William, Ph. D., 331 Witherspoon Building, Philadelphia, Pa. (35). 1895. **CK**
- *MacCurdy, George Grant, Ph. D., Yale University Museum, New Haven, Conn. (48). 1900. **H**
- MacCurdy, Hansford M., Ph. D., Professor of Zoology, Alma College, Alma, Mich. (51). **FG**
- McCurdy, Rev. Irwin Pound, D. D., LL. D., 538 So. 49th St., Philadelphia, Pa. (61). **HIL**
- McCutcheon, Thomas P., Jr., Harrison Laboratory, University of Pennsylvania, Philadelphia, Pa. (58). **C**
- McDaniel, Allen Boyer, Professor of Civil Engineering, Vermilion, S. Dak. (58). **AD**
- McDavitt, Thomas, M. D., St. Paul, Minn. (60). **K**
- Macdonald, Benjamin J., Lock Box 704, Newburgh, N. Y. (50). **I**
- McDonald, Ellice, M. D., 194 W. 58th St., New York, N. Y. (60). **K**
- McDonald, Hugh N., M. D., 329 Central Ave., Minneapolis, Minn. (60). **K**
- MacDonald, Margaret Baxter, Ph. D., State College, Pa. (58). **C**
- McDonnell, Curtis C., Bureau of Chemistry, U. S. Department of Agriculture, Washington, D. C. (51). **C**
- *McDonnell, Henry Barnett, M. D., College Park, Md. (40). 1893. **C**
- McDonough, James Albert, C. E., U. S. Engineer Office, Wheeling, W. Va. (60). **D**
- *MacDougal, Daniel Trembly, Ph. D., LL. D., Desert Botanical Laboratory, Tuscon, Ariz. (44). 1897. **G**
- *MacDougall, Alexander Hiram, Principal, Ottawa Collegiate Institute, Ottawa, Canada. (58). 1909. **AL**
- MacDougall, George R., 131 West 73d St., New York, N. Y. (49).
- *MacDougall, Robert, Ph. D., 2258 Aqueduct Ave., New York, N. Y. (49). 1901. **HKL**
- McDowell, Alex. H., 38 Hopkins St., Woodbury, N. J. (58). **C**
- McDowell, Edward Campbell, care The American Car and Foundry Co., Berwick, Pa. (54). **D**

MEMBERS AND FELLOWS.

- McDowell, John D., 815 Park Place, Brooklyn, N. Y. (60). **A**
- *McElfresh, William Edward, Williamstown, Mass. (53). 1906. **B**
- McElroy, James B., M. D., Porter Building, Memphis, Tenn. (60). **K**
- McEwen, Ernest L., M. D., 2036 Orrington Ave., Evanston, Ill. (60). **K**
- McFadden, Prof. Louis Hartley, 40 Warder St., Dayton, Ohio. (32). **C**
- McFadden, Thomas Gilbert, Department of Physics, Jersey City High School, Jersey City, N. J. (48). **C**
- McFarland, A. R., M. E., 609 Willis Ave., Syracuse, N. Y. (58). **D**
- McFarland, Boynton Wells, Ph. D., 278 Canner St., New Haven, Conn. (57). **CDL**
- *McFarland, David Ford, Assistant Professor of Chemistry, University of Kansas, Lawrence, Kans. (58). 1910. **C**
- *MacFarland, Frank Mace, Ph. D., Associate Professor of Histology, Leland Stanford Junior University, Stanford University, Cal. (56). 1910. **FK**
- *Macfarlane, Prof. Alexander, 317 Victoria Ave., Chatham, Ontario, Canada. (34). 1886. **AB**
- *Macfarlane, Hon. James R., Judge of Court of Common Pleas. No. 1, Court House, Pittsburg, Pa. (50). 1906. **E**
- *Macfarlane, John M., Professor of Botany, University of Pennsylvania, Philadelphia, Pa. (41). 1899. **G**
- McGee, Miss Emma R., Farley, Iowa. (33). **G**
- McGee, John Bernard, M. D., 8117 Woodland Ave., Cleveland, Ohio. (51). **HK**
- *McGee, W J, LL. D., Cosmos Club, Washington, D. C. (27). 1882. **EH**
- McGiffert, John R., M. E., care Clyde Iron Works, Duluth, Minn. (60). **D**
- McGill, A., 317 Queen St., Ottawa, Canada. (60). **C**
- McGill, John A., M. D., 4938 Drexel Boulevard, Chicago, Ill. (58). **K**
- *McGill, John Thomas, Ph. D., Professor of Organic Chemistry, Vanderbilt University, Nashville, Tenn. (36). 1888. **C**
- MacGillivray, Alexander D., Ph. D., Assistant Professor of Entomology and Invertebrate Zoology, Cornell University, Ithaca, N. Y. (58). **F**
- McGlannan, Alexius, M. D., 114 West Franklin St., Baltimore, Md. (60). **K**
- McGlone, Bartgis, Ph. D., Professor of Biology, St. John's College, Annapolis, Md. (58). **F**
- *McGregor, James Howard, Ph. D., Adjunct Professor of Zoology, Columbia University, New York, N. Y. (52). 1905. **F**
- MacGregor, Walter, M. E., Indiana Harbor, Ind. (60). **D**
- *McGregory, Joseph Frank, Professor of Chemistry, Colgate University, Hamilton, N. Y. (35). 1892. **C**
- McGrew, William Raymond, M. D., Stuart, Iowa. (60). **K**
- McGuigan, Hugh, M. D., Ph. D., Professor of Pharmacology, Washington University, St. Louis, Mo. (58). **K**
- *McGuire, Joseph Deakins, 1834 16th St. N. W., Washington, D. C. (51). 1902. **H**

- Machalske, Florentin J., Ph. D., P. O. Box 25, Station W, Brooklyn, N. Y. (52). **C**
- McHargue, James Spencer, 312 South Upper St., Lexington, Ky. (60). **C**
- *McHatton, Henry, M. D., 335 College St., Macon, Ga. (52). 1909. **K**
- McHatton, Thomas Hubbard, Adjunct Professor of Horticulture, University of Georgia, Athens, Ga. (58). **GL**
- McHenry, Ralph F., M. D., Heilwood, Pa. (60). **K**
- *McInnes, William, Geological Survey of Canada, Ottawa, Canada. (60). 1910. **E**
- McIntire, Charles, M. D., 52 North 4th St., Easton, Pa. (60). **K**
- MacIntyre, Miss Lucy, 303 West 74th St., New York, N. Y. (49).
- Mack, Bernard J., Denver Athletic Club, Denver, Colo. (54). **C**
- Mack, J. L., Rock Mart, Ga. (60). **C**
- MacKay, Alex. Howard, LL. D., Superintendent of Education for Nova Scotia, Halifax, Nova Scotia. (57). **FGHIKL**
- McKay, John S., Ph. D., care Packer Collegiate Institute, Brooklyn, N. Y. (52).
- McKay-Smith, The Right Reverend Alexander, D. D., S. T. D., 251 South 22d St., Philadelphia, Pa. (57). **I**
- McKeag, Anna Jane, Ph. D., Professor of the History and Principles of Education, Wellesley College, Wellesley, Mass. (60). **L**
- McKee, Edward Sydney, M. D., Grand and Nassau Sts., Cincinnati, Ohio. (60). **K**
- McKee, Garnet W., care People's Gas Light and Coke Co., corner Michigan Ave. and Adams St., Chicago, Ill. (58). **C**
- *McKee, Ralph Harper, Ph. D., Professor of Chemistry, University of Maine, Orono, Me. (53). 1909. **C**
- McKee, Thomas H., M. D., 159 Cleveland Ave., Buffalo, N. Y. (60). **K**
- McKeehan, Louis Williams, Assistant in Physics, University of Minnesota, Minneapolis, Minn. (60). **B**
- *McKellar, Peter, 403 John St., Fort William, Ontario, Canada. (56). 1909. **ADE**
- McKelvey, James Percy, M. D., 519 North Highland Ave., Pittsburg, Pa. (58). **K**
- McKelvey, John Jay, 84 William St., New York, N. Y. (57). **BI**
- *McKelvy, Ernest Christian, Bureau of Standards, Washington, D. C. (58). 1910. **C**
- *McKelway, Alexander Jeffrey, 1114 Century Building, Atlanta, Ga. (55). 1907. **HI L**
- *McKENNEY, RANDOLPH EVANS BENDER, Ph. D., Cosmos Club, Washington, D. C. (51). 1903. **G**
- Mackenzie, A. Stanley, Professor of Physics, Stevens Institute of Technology, Hoboken, N. J. (60). **B**
- MacKenzie, Prof. J. J., 43 Chestnut Park Road, Toronto, Canada. (60). **CK**
- McKenzie, John H., Rector, Howe School, Lima, Ind. (58).

MEMBERS AND FELLOWS.

- Mackenzie, Kenneth Girard, care Nairn Linoleum Co., P. O. Box 32, Newark, N. J. (60). **C**
- Mackenzie, Kenneth K., 139 North Walnut St., East Orange, N. J. (57). **G**
- McKenzie, R. Monroe, Ph. D., Professor of Chemistry and Physics, Parsons College, Fairfield, Iowa. (58). **BCDE**
- *McKinney, Thomas Emery, Ph. D., Professor of Mathematics, University of South Dakota, Vermilion, S. Dak. (50). 1906. **AL**
- Mackintosh, Roger Sherman, Professor of Horticulture, Agricultural Experiment Station, Auburn, Ala. (53). **GL**
- McLane, Allan, Garrison, Md. (60).
- McLaren, John Dice, M. D., University of Oklahoma, Norman, Okla. (60). **K**
- McLaughlin, A. C., care Houston Oil Co., Houston, Texas. (52). **CDE**
- McLaughlin, Thomas N., M. D., 1226 N St. N. W., Washington, D. C. (52). **HK**
- McLaury, Howard Lincoln, Professor of Mathematics, State School of Mines, Rapid City, S. Dak. (50). **A**
- *Maclay, James, Ph. D., Adjunct Professor of Mathematics, Columbia University, New York, N. Y. (52). 1907. **A**
- McLean, Charlotte F., Ph. D., Albert Lea College, Albert Lea, Minn. (54).
- Maclean, George, Van Dyck Studios, 939 Eighth Ave., New York, N. Y. (57). **BCHIKL**
- *MacLean, George Edwin, Ph. D., LL. D., President, State University of Iowa, Iowa City, Iowa. (52). 1904. **L**
- McLendon, Clarence Albertis, Georgia Experiment Station, Experiment, Ga. (60). **G**
- *McLennan, J. C., Ph. D., Professor of Physics, University of Toronto, Toronto, Canada. (51). 1903. **B**
- *Macleod, John James Rickard, Professor of Physiology, Western Reserve Medical College, Cleveland, Ohio. (55). 1907. **K**
- *Macloskie, Prof. George, Princeton University, Princeton, N. J. (25). 1882. **FG**
- McLure, Norman R., C. E., 527 Pierce Bldg., St. Louis, Mo. (60). **D**
- *McMahon, Prof. James, Cornell University, Ithaca, N. Y. (36). 1891. **AB**
- McMeen, S. G., E. E., 108 Cole St., San Francisco, Cal. (58). **D**
- McMichael, Orville Winthrop, M. D., 275 East Ontario St., Chicago, Ill. (60). **K**
- *MacMillan, Conway, (53). 1906. **G**
- McMillan, D. K., Brownsville, Tex. (60). **F**
- MacMillan, Daniel P., M. D., Ph. D., Director, Department of Child Study and Pedagogic Instruction, care Board of Education, 818 Tribune Bldg., Chicago, Ill. (57). **HL**
- McMILLAN, SMITH B., Signal, Ohio. (37).
- *MacMillan, Wm. Duncan, Ph. D., 5407 Woodlawn Ave., Chicago, Ill. (58). 1910. **A**

- McMillen, Russell H., 3733 Jacob St., Wheeling, W. Va. (58). **C**
- *McMILLIN, EMERSON, 40 Wall St., New York, N. Y. (37). 1909. **E**
- McMinn, Amelia, West Division High School, Milwaukee, Wis. (60). **A**
- *McMurrich, James Playfair, Ph. D., Professor of Anatomy, University of Toronto, Toronto, Canada. (58). 1909. **F**
- *McMurtrie, William, 480 Park Ave., New York, N. Y. (22). 1874.
CDIKL
- McMurtry, Charles Wood, M. D., 812 Fifth Ave., New York, N. Y. (57).
K
- *McNair, Fred Walter, President, Michigan College of Mines, Houghton, Mich. (51). 1902. **BD**
- McNally, James, 166 Adams St., Chicago, Ill. (58). **EL**
- MacNeal, Ward J., Ph. D., 904 West Oregon St., Urbana, Ill. (58).
FGK
- McNeil, Hiram Colver, Ph. D., 132 V St. N. W., Washington, D. C. (51).
BCE
- McNeil, Wilbur James, 2515 Dwight Way, Berkeley, Cal. (60)
- *McNeill, Malcolm, Ph. D., Professor of Mathematics and Astronomy, Lake Forest University, Lake Forest, Ill. (32). 1885. **A**
- McNider, William De Berniere, Professor of Pharmacology, University of North Carolina, Chapel Hill, N. C. (61). **K**
- McNitt, Robert Joseph, E. E., 124 3d St., Niagara Falls, N. Y. (60). **D**
- McNulty, Geo. Washington, C. E., 139 West 79th St., New York, N. Y. (51). **D**
- *MacNutt, Barry, Assistant Professor of Physics, Lehigh University, South Bethlehem, Pa. (47). 1900. **B**
- MacNutt, J. Scott, 227 Main St., Orange, N. J. (58). **IKL**
- Macomber, George S., E. E., Kelvin Place, Ithaca, N. Y. (60). **D**
- *McPherson, Wm., Professor of Chemistry, Ohio State University, Columbus, Ohio. (45). 1898. **C**
- *McRae, Austin Lee, Professor of Physics, School of Mines and Metallurgy, University of Missouri, Rolla, Mo. (39). 1891. **BD**
- *MacVannel, John Angus, Professor of Philosophy and Education, Columbia University, New York, N. Y. (52). 1905. **HIL**
- McVean, John Jay, C. E., 18 State St., Grand Rapids, Mich. (60). **D**
- McVey, Frank LeRond, Ph. D., President, University of North Dakota, University, N. D. (60). **L**
- McVicker, Wm. B., President, W. B. McVicker Co., 115 Broadway, New York, N. Y. (57). **CDI**
- Macy, Valentine Everit, 68 Broad St., New York, N. Y. (49). **I**
- Madrill, James Davis, Ph. D., International Latitude Observatory, Ukiah, Cal. (58). **AB**
- Madison, Harold Lester, Curator, Park Museum, Providence, R. I. (55). **FL**
- Magee, Mrs. John J., 5810 Rosalie Court, Chicago, Ill. (61).
- Mager, F. Robert, Armour Villa Park, Yonkers, N. Y. (57).

MEMBERS AND FELLOWS.

- Magers, S. D., Ypsilanti, Mich. (58).
- *Magie, Wm. Francis, Ph. D. - 8 Library Place, Princeton, N. J. (35).
1887. **B**
- Maglott, Mrs. Eva Sisson, Professor of Mathematics, Ohio Northern University, Ada, Ohio. (58). **A D**
- Magnuson, J. P., Professor of Chemistry and Physics, Augustana College, Rock Island, Ill. (57). **B C**
- Magnusson, Carl Edward, Ph. D., University of Washington, Seattle, Wash. (51). **B**
- *Magruder, Egbert Watson, Chemist, Virginia Department of Agriculture, Richmond, Va. (51). 1906. **C**
- Magruder, G. Lloyd, M. D., Stoneleigh Court, Washington, D. C. (60). **K**
- *Magruder, Wm. T., Professor of Mechanical Engineering, Ohio State University, Columbus, Ohio. (37). 1899. **D L**
- Maher, John J., V. D. S., 1533 Franklin St., Philadelphia, Pa. (53). **F**
- Mahoney, James Owen, 260 Crockett St., Dallas, Tex. (58). **A**
- Mahoney, Stephen A., M. D., 628 Dwight St., Holyoke, Mass. (51). **K**
- Maignen, Prosper Auguste, 52 North 13th St., Philadelphia, Pa. (54).
Main, William, Engineer and Chemist, Piermont, N. Y. (58). **B C D**
- *Major, David R., Ph. D., Professor of Education, Ohio State University, Columbus, Ohio. (51). 1906. **H I L**
- *Mall, Franklin Payne, M. D., LL. D., Professor of Anatomy, Johns Hopkins University, Baltimore, Md. (57). 1908. **F H K**
- *Mallet, John William, Ph. D., LL. D., Professor of Chemistry, University of Virginia, Charlottesville, Va. (52). 1906. **B C K**
- Mallinckrodt, Edw., P. O. Sub-Station A, St. Louis, Mo. (29). **C**
- *MALLINCKRODT, EDW., JR., 26 Vandeventer Place, St. Louis, Mo. (53).
1909. **C D**
- *Mallory, Frank Burr, M. D., Associate Professor of Pathology, Harvard Medical School, Boston, Mass. (54). 1906. **F G K**
- Maltbie, William Henry, Ph. D., Professor of Mathematics, The Woman's College, Baltimore, Md. (60). **A**
- *Maltby, Margaret E., Ph. D., Adjunct Professor of Physics, Barnard College, New York, N. Y. (46). 1898. **B**
- Mammen, Ernest, M. D., Bloomington, Ill. (58). **F K**
- *Mandel, John A., Professor of Chemistry, Bellevue Hospital Medical College, New York, N. Y. (57). 1908. **C K**
- Maneval, Willis Edgar, Professor of Biology and Geology, Roanoke College, Salem, Va. (60). **G**
- Mangan, Daniel C., M. D., 95 Park Ave., Brooklyn, N. Y. (50). **F K**
- Manierre, Chas. E., 352 West End Ave., New York, N. Y. (57).
- Manly, John Matthews, Ph. D., Professor of English, University of Chicago, Chicago, Ill. (58).
- Mann, Albert, Ph. D., U. S. Department of Agriculture, Washington, D. C. (43). **G**
- *MANN, B. PICKMAN, 1918 Sunderland Place, Washington, D. C. (22)
1874. **F I**

- *Mann, Charles Riborg, Ph. D., Professor of Physics, University of Chicago, Chicago, Ill. (57). 1908. **BL**
- Mann, Gustav, M. D., Professor of Physiology, Tulane University, New Orleans, La. (60). **K**
- Manning, Charles Henry, U. S. Navy, Manchester, N. H. (35). **D**
- Manning, Miss Eva, 1330 Columbia Road, Washington, D. C. (52). **EH**
- *Manning, Henry Parker, Ph. D., Assistant Professor of Pure Mathematics, Brown University, Providence, R. I. (55). 1907. **A**
- Manning, J. Woodward, Vine Place, Reading, Mass. (47). **G**
- Manns, Thomas Franklin, Ohio Agricultural Experiment Station, Wooster, Ohio. (58). **G**
- Manny, Frank A., 926 West Kalamazoo Ave., Kalamazoo, Mich. (58). **HL**
- Mansbach, E., 1292 Madison Ave., New York, N. Y. (57).
- Mansfield, Frank Albert, (57). **HIK**
- Mansfield, George Rogers, Ph. D., Assistant Professor of Geology, Northwestern University, Evanston, Ill. (57). **E**
- Manson, Marsden, C. E., Ph. D., Commissioner of Public Works, 2010 Gough St., San Francisco, Cal. (51). **DE**
- *Manwaring, Wilfred Hamilton, M. D., Rockefeller Institute for Medical Research, New York, N. Y. (55). 1908. **K**
- Mapes, Charles Victor, 60 West 40th St., New York, N. Y. (37). **C**
- Marble, J. Russel, Worcester, Mass. (31). **CE**
- MARBLE, MANTON, Bedford, N. Y. (36).
- Markworth, Otto Stanley, Director, Ohio Testing Laboratory, Columbus, Ohio. (57). **BC**
- Marcou, John B., Princeton, Mass. (57). **EK**
- Marine, David, M. D., Western Reserve Medical School, Cleveland, Ohio. (60). **K**
- *Mariott, Walter Ross, Instructor in Mathematics, Swarthmore College, Swarthmore, Pa. (57). 1910. **A**
- *Mark, Edgar H., M. D., Superintendent, Public Schools, Louisville, Ky. (39). 1893. **BL**
- *Mark, Edward Laurens, Ph. D., LL. D., Director, Zoological Laboratory, Harvard University, Cambridge, Mass. (50). 1901. **FK**
- Markham, George Dickson, 4961 Berlin Ave., St. Louis, Mo. (50).
- Markle, John, 31 Nassau St., New York, N. Y. (57).
- Marks, Lionel S., 88 Lake View Ave., Cambridge, Mass. (60).
- Marks, Louis B., 103 Park Ave., New York, N. Y. (50). **D**
- Marks, Miss Lucy Ballard, 37 Fifth Ave., New York, N. Y. (57).
- *Marks, William Dennis, C. E., 623 Park Row Building, New York, N. Y. (50). 1906. **I**
- Marlatt, Miss Abby L., University of Wisconsin, Madison, Wis. (48). **CIKL**
- *Marlatt, Charles Lester, U. S. Department of Agriculture, Washington, D. C. (40). 1895. **F**
- MARLING, ALFRED E., 47 West 47th St., New York, N. Y. (57).

MEMBERS AND FELLOWS.

Marlow, Frank William, M. D., 200 Highland St., Syracuse, N. Y. (50).

H K

MARMOR, REV. J. D.,.....(52). **E H K**

Marple, Charles A., 91 Euclid Villa, Cleveland, Ohio. (39). **B**

Marr, George H., M. E., 89 Silver St., Waterville, Me. (60). **D**

Marshall, A. J., Madison, Wis. (60). **C**

*Marsh, Charles Dwight, Ph. D., U. S. Department of Agriculture, Washington, D. C. (34). 1893. **E F**

Marsh, Clarence T. N., 4193 South Halstead St., Chicago, Ill. (58). **C**

Marsh, Horace Wilmer, Pratt Institute, Brooklyn, N. Y. (60). **A**

Marsh, Howard Daniel, Ph. D., Instructor in Philosophy, College of the City of New York, New York, N. Y. (58). **K**

Marsh, John A., 112 Brooks St., Brighton, Boston, Mass. (60). **A**

Marsh, Millard C., U. S. Bureau of Fisheries, Washington, D. C. (54). **F**

Marshall, Charles Edward, Professor of Bacteriology and Hygiene, Michigan Agricultural College, East Lansing, Mich. (60). **I K**

Marshall, Collins, M. D., 2507 Pennsylvania Ave., Washington, D. C. (60). **K**

Marshall, Henry Rutgers, 3 West 29th St., New York, N. Y. (57). **H**

Marshall, Horace Miller, U. S. Engineer Office, Vicksburg, Miss. (51). **D**

MARSHALL, LOUIS, 47 East 72d St., New York, N. Y. (57).

Marshall, S. M., E. E., 120 Tioga St., Johnstown, Pa. (61). **D**

*Marsters, Vernon Freeman, Apartado 856, Lima, Peru, S. A. (49). 1906. **E**

Marston, Edwin S., South Orange, N. J. (50).

Marston, P. L., Box 910, Tonopah, Nevada. (58). **C D**

*Martin, Artemus, Ph. D., LL. D., U. S. Coast and Geodetic Survey, Washington, D. C. (38). 1890. **A B**

Martin, Arthur W., Nanking University, Nanking, China. (58). **C**

*Martin, Daniel Strobel, Ph. D., 756 Quincy St., Brooklyn, N. Y. (23). 1879. **E**

*Martin, Emilie Norton, Ph. D., Mt. Holyoke College, South Hadley, Mass. (54). 1906. **A**

Martin, Ernest G., Ph. D., Instructor in Physiology, Harvard Medical School, Boston, Mass. (60). **K**

*Martin, Fernando Wood, Ph. D., College Park, Lynchburg, Va. (49). 1905. **C**

Martin, Frank, M. D., 1000 Cathedral St., Baltimore, Md. (60). **K**

*Martin, George Curtis, Ph. D., U. S. Geological Survey, Washington D. C. (51). 1903. **E**

Martin, Geo. W., Professor of Biology, Vanderbilt University, Nashville, Tenn. (52). **F**

Martin, Harriett M., 107 College Place, Ithaca, N. Y. (60).

Martin, John, Grymes Hill, Stapleton, Staten Island, N. Y. (56). **I**

*Martin, Louis Adolphe, Jr., Professor of Mechanics, Stevens Institute of Technology, Hoboken, N. J. (53). 1906. **ABDL**

- Martin, Walton, 25 West 50th St., New York, N. Y. (58). **K**
- Martin, William Franklin, C. E., care Dept. of Public Works, Honolulu, Hawaii. (60). **D**
- Martin, William J., Davidson, N. C. (60). **C**
- Martin, William Lyon, Augusta, Ga. (51). **G**
- Marvel, Emery, M. D., 1801 Pacific Ave., Atlantic City, N. J. (60). **K**
- *Marvin, Charles F., U. S. Weather Bureau, Washington, D. C. (39). 1892. **CDE**
- *Marvin, Frank Olin, Dean, School of Engineering, University of Kansas, Lawrence, Kans. (35). 1894. **D**
- Marvin, Harry Norton, Canastota, N. Y. (50). **D**
- Marvin, Joseph B., M. D., LL. D., President, Kentucky University, Louisville, Ky. (51). **IK**
- Mason, Edward J. K., E. E., Suffield, Conn. (60). **D**
- Mason, Herbert Warren, 161 Devonshire St., Boston, Mass. (53). **BCD**
- Mason, Max, Ph. D., Professor of Mathematical Physics, University of Wisconsin, Madison, Wis. (58.) 1909. **A**
- Mason, Miss Nellie M., Teacher of Science, Abbot Academy, Andover, Mass. (50). **BCG**
- *Mason, Dr. William Pitt, Rensselaer Polytechnic Institute, Troy, N. Y. (31). 1886. **C**
- *Mast, Samuel Ottmar, Ph. D., Johns Hopkins University, Baltimore, Md. (52). 1909. **FG**
- Masters, Harris Kennedy, E. M., care W. E. Clark, 192 W. Broadway, New York, N. Y. (60). **D**
- Masury, Fred L. M., President, Masurite Explosive Co., Masury, Ohio. (58). **CD**
- *Matas, Rudolph, M. D., Professor of Surgery, Tulane University, New Orleans, La. (50). 1906. **FHK**
- Matausch, Ignaz, American Museum of Natural History, New York, N. Y. (57).
- Mateer, Horace N., M. D., Wooster, Ohio. (36). **EFK**
- Matheny, William A., Clark University, Worcester, Mass. (61). **GH**
- Mather, Enoch, M. D., LL. D., 168 West High St., W. Detroit, Mich. (58). **K**
- *Mather, William T., Professor of Physics, University of Texas, Austin, Tex. (60). 1910. **B**
- Matheson, Robert, Instructor in Entomology, South Dakota State College of Agriculture and Mechanic Arts, Brookings, S. Dak. (58). **F**
- Matheson, Wm. J., 182 Front St., New York, N. Y. (54). **I**
- *Mathews, Albert P., Ph. D., Professor of Physiological Chemistry, University of Chicago, Chicago, Ill. (57). 1908. **CKL**
- Mathews, Huber B., Brookings, S. Dak. (58). **D**
- Mathews, Miss Jane, 50 Library Place, Pittsburg, N. S., Pa. (60). **A**
- *Mathews, John A., Ph. D., Managing Director, Holcomb Steel Co., Syracuse, N. Y. (50). 1902. **BCDEIL**

MEMBERS AND FELLOWS.

- Mathews, Miss Mary Elizabeth, 149 State St., Painesville, Ohio. (41). **G**
 Mathewson, Edward Payson, 422 Hickory St., Anaconda, Mont. (57).
C D
 Matlack, Charles, "Hidden Hearth," Matunuck, R. I. (27). **I**
 Matson, George C., U. S. Geological Survey, Washington, D. C. (60) **E**
 Matson, Ralph C., M. D., 1021 Corbett Building, Portland, Ore. (60). **K**
 *Matthes, Francois Emile, U. S. Geological Survey, Washington, D. C.
 (52). 1909. **D E**
 *Matthew, William Diller, Ph. D., American Museum of Natural History,
 New York, N. Y. (54). 1906. **E**
 Matthews, Albert, Hotel Oxford, Boston, Mass. (51). **H**
 Matthews, J. Merritt, Taunton, Mass. (60). **C**
 *Matthews, Samuel A., University of Chicago, Chicago, Ill. (58). 1909. **K**
 Mattill, Henry A., University of Illinois, Urbana, Ill. (60). **C**
 Mattison, Fitch C. E., M. D., 295 West California St., Pasadena, Cal.
 (51). **K**
 Mattoon, Arthur Martyn, Director, Scott Observatory of Park College,
 Parkville, Mo. (47). **A**
 Mattson, John Danskin, 2017 I St. N. W., Washington, D. C. (58). **C**
 *Maurer, Edward R., Professor of Mechanics, University of Wisconsin,
 Madison, Wis. (53). 1906. **D**
 Maury, Carlotta J., Ph. D., Hastings, N. Y. (57). **E F**
 Mavor, James Watt, Craigie Hall 203, Cambridge, Mass. (60).
 Maxim, Hudson, 698 St. Marks Ave., Brooklyn, N. Y. (56). **C**
 *Maxon, William R., U. S. National Museum, Washington, D. C. (49).
 1906. **G**
 Maxwell, George H., 2008 Calumet Ave., Chicago, Ill. (50). **E**
 Maxwell, Otis Allen, Principal, High School, Denison, Tex. (57). **BCDG**
 *Mayer, Alfred Goldsborough, M. E., Director, Marine Laboratory, Car-
 negie Institute, Tortugas via Key West, Fla. (47). 1900. **F**
 Mayer, Edwin Charles, Assistant in Physics, Cornell University, Ithaca,
 N. Y. (60). **B**
 Maynard, E. W., care E. I. du Pont Co., Louviers, Colo. (60). **C**
 Maynard, T. Poole, Ph. D., Ga. Geological Survey, Atlanta, Ga. (61). **E**
 Maynard, Washburn, Rear Admiral, U. S. N., Narragansett Pier, R. I.
 (33). **B**
 Mayne, Earl H., M. D., 139 Bay 17th St., Brooklyn, N. Y. (60). **K**
 *Mead, Albert Davis, Ph. D., Professor of Comparative Anatomy, Brown
 University, Providence, R. I. (52). 1905. **F**
 Mead, Charles A., 172 William St., Orange, N. J. (60). **A**
 Mead, Chas. Searing, 2020 Orrington Ave., Evanston, Ill. (52). **F**
 *Mead, George Herbert, Professor of Philosophy, University of Chicago,
 Chicago, Ill. (58). 1910. **L**
 Mead, Marvin Hulst, 382 River Drive, Passaic, N. J. (57). **DFG**
 Means, Charles Johnson, 29 Marlborough St., Boston, Mass. (60).
 Means, James, 196 Beacon St., Boston, Mass. (47).

- Meany, Edward, M. D., Ithaca, N. Y. (60). **K**
- *Mearns, Major Edgar A., M. D., U. S. National Museum, Washington, D. C. (49). 1901. **K**
- MEARS, J. EWING, M. D., 1535 Land Title Bldg., Philadelphia, Pa. (56). **I**
- Mecklin, John M., Department of Philosophy, Lafayette College, Easton, Pa. (60). **H**
- Medsker, Oliver Perry, 609 Kearney Ave., Arlington, N. J. (50). **G**
- Meeds, Alonzo D., City Hall, Minneapolis, Minn. (60). **C**
- Meek, Seth Eugene, Ph. D., Assistant Curator of Zoology, Field Museum of Natural History, Chicago, Ill. (58). **F**
- Meeker, George H., Ph. D., LL. D., Professor of Chemistry, Medico-Chirurgical College, Philadelphia, Pa. (57). **CL**
- Meeks, William D., M. D., Massie's Mill, Va. (60). **K**
- *Mees, Carl Leo, Ph. D., President, Rose Polytechnic Institute, Terre Haute, Ind. (24). 1876. **BC**
- Meigs, Edward B., M. D., Harvard Medical School, Boston, Mass. (53). **K**
- Meigs, Katharine H., 64 Union Ave., Jamaica, L. I., N. Y. (61).
- Meigs, Montgomery, U. S. A., U. S. Engineer Office, Keokuk, Iowa. (51). **D**
- Mein, William Wallace, E. M., P. O. Box 1145, Johannesburg, Transvaal, South Africa. (60). **D**
- *Meisenhelder, Edmund Webster, Jr., M. D., 9-11 East Market St., York, Pa. (57). 1908. **FK**
- Melander, Axel Leonard, Pullman, Wash. (60). **F**
- Melcher, Arthur Clarke, 58 Bowen St., Newton Center, Mass. (58). **BC**
- *Mell, Patrick H., Ph. D., President, Clemson Agricultural College, Clemson College, S. C. (39). 1895. **EG**
- Mellor, Alfred, President, Mellor and Rittenhouse Co., 2130 Mt. Vernon St., Philadelphia, Pa. (51).
- *Mellus, E. Lindon, M. D., 10 East Chase St., Baltimore, Md. (58). 1909. **FHK**
- *Meltzer, Samuel J., M. D., Head of Department of Physiology and Pharmacology, Rockefeller Institute, New York, N. Y. (49). 1901. **K**
- Memminger, C. G., E. M., Lakeland, Fla. (60). **D**
- *Mendel, Lafayette Benedict, Ph. D., Professor of Physiological Chemistry, Sheffield Scientific School, Yale University, New Haven, Conn. (53). 1907. **CK**
- *Mendelson, Walter, M. D., 159 West 74th St., New York, N. Y. (57). 1909. **K**
- *Mendenhall, Charles Elwood, Ph. D., University of Wisconsin, Madison, Wis. (48). 1900. **B**
- *Mendenhall, Thomas Corwin, Ph. D., care Brown, Shipley & Co., 123 Pall Mall, London, England. (20). 1874. **B**
- *Mendenhall, Walter Curran, U. S. Geological Survey, Washington, D. C. (52). 1903. **DEI**

MEMBERS AND FELLOWS

- Mendiola, Manuel Maria, C. E., Avenida Juarez 218, Juarez, Mexico. (58). **D**
- Menefee, Evalyn I., M. D., Granbury, Tex. (57). **B C I K L**
- Menge, George Albert, Ph. D., Hygienic Laboratory, 25th and E Sts., Washington, D. C. (60). **C**
- Mengel, Prof. Levi W., Director, Reading Public Museum and Scientific Laboratory, Reading, Pa. (52). **E F**
- Menges, Franklin, Ph. D., 233 East Philadelphia St., York, Pa. (58). **D L**
- Menzies, Alan W. C., The University of Chicago, Chicago, Ill. (60). **C**
- Mercer, A. Clifford, 324 Montgomery St., Syracuse, N. Y. (60). **A**
- *Mercer, Henry Chapman, Doylestown, Pa. (41). 1893. **H**
- Mercer, William Fairfield, Ph. D., Professor of Biology, Ohio University, Athens, Ohio. (50). **F K**
- Meredith, Hugh B., M. D., Superintendent, State Hospital, Danville, Pa. (58). **K**
- Merica, Charles Oliver, LL. D., President, University of Wyoming, Laramie, Wyoming. (61). **L**
- *Merigold, Benjamin S., Ph. D., Assistant Professor of Chemistry, Clark University, Worcester, Mass. (56). 1909. **C**
- Merrell, Miss Caroline Wallace, 2950 Frankford Ave., Philadelphia, Pa. (54). **G**
- Merrell, William Dayton, Ph. D., Assistant Professor of Biology, University of Rochester, Rochester, N. Y. (58). **F G L**
- *Merriam, C. Hart, M. D., U. S. Department of Agriculture, Washington, D. C. (49). 1900. **F G H**
- *Merriam, Edmund Sawyer, Ph. D., Professor of Chemistry, Marietta College, Marietta, Ohio. (56). 1910. **C**
- *Merriam, John C., Ph. D., Associate Professor of Paleontology and Historical Geology, University of California, Berkeley, Cal. (52). 1905. **E F**
- Merrick, E. D., 11th St., 3d to 4th Aves., New Brighton, Pa. (57).
- Merrill, Burton J., M. D., Stillwater, Minn. (60). **K**
- *Merrill, Elmer Drew, Bureau of Science, Department of the Interior, Manila, P. I. (50). 1909. **G**
- *MERRILL, FREDERICK J. H., Ph. D., New Rochelle, N. Y. (35). 1887. **E**
- Merrill, Helen Abbott, Ph. D., Associate Professor of Mathematics, Wellesley, Mass. (58). **A**
- *Merrill, Joseph Francis, Ph. D., Professor of Physics and Electrical Engineering, University of Utah, Salt Lake City, Utah. (50). 1908. **B D**
- *Merrill, Lucius Herbert, Professor of Biological and Agricultural Chemistry, University of Maine, Orono, Me. (50). 1909. **C**
- Merrill, Robert Hall, C. E., Barge Canal Office, Medina, N. Y. (60). **D**
- MERRILL, MRS. WINIFRED EDGERTON, Ph. D., New Rochelle, N. Y. (35). **A**
- *Merriman, Mansfield, Ph. D., Consulting Engineer, The Engineers' Club, 32 West 40th St., New York, N. Y. (32). 1885. **A D L**

- Merritt, David Spencer, C. E., 104 Grove St., Tarrytown, N. Y. (60). **D**
- *Merritt, Ernest G., Professor of Physics, Cornell University, Ithaca, N. Y. (33). 1890. **B**
- Merritt, D. S., C. E., 104 Grove St., Tarrytown, N. Y. (58). **D**
- *Morrow, Miss Harriet L., Rhode Island College of Agriculture and Mechanic Arts, Kingston, R. I. (44). 1906. **G**
- Mersereau, Gail, 738 West End Ave., New York, N. Y. (60). **C**
- *Mershon, Ralph Davenport, Consulting Engineer, 116 West 85th St., New York, N. Y. (50). 1906. **D**
- Merz, Albert R., Box 285, Charlottesville, Va. (58). **C**
- Merzbacher, Aaron, Hotel Monaca, Monaca, Pa. (58). **C**
- *Messenger, Hiram John, Ph. D., 637 Farmington Ave., Hartford, Conn. (54). 1906. **I**
- *Messenger, James Franklin, Ph. D., University of Vermont, Burlington, Vt. (52). 1905. **H L**
- Messer, Charles C., M. D., Turners Falls, Mass. (61). **K**
- *Metcalf, Haven, Ph. D., U. S. Department of Agriculture, Washington, D. C. (52). 1904. **G**
- *Metcalf, Maynard Mayo, Ph. D., 128 Forest St., Oberlin, Ohio. (50). 1901. **F**
- Metcalf, William F., M. D., 636 Woodward Ave., Detroit, Mich. (58). **K**
- Metcalf, Wilmot V., Fisk University, Nashville, Tenn. (50). **B C**
- *Metz, Abraham L., M. D., Professor of Chemistry, Medical Department, Tulane University, New Orleans, La. (55). 1909. **C K**
- *Metzler, William H., Ph. D., Professor of Mathematics, Syracuse University, Syracuse, N. Y. (45). 1899. **A**
- *Meyer, Adolf, M. D., Director, Pathological Institute of New York State Hospital, Ward's Island, New York, N. Y. (52). 1905. **K**
- Meyer, Alfred, M. D., 785 Madison Ave., New York, N. Y. (57). **K**
- Meyer, Arthur Wm., M. D., 1116 Ramona St., Palo Alto, Cal. (58). **F K**
- Meyer, Edgar J., E. M., 7 Wall St., New York, N. Y. (60). **C D**
- Meyer, Gustave Maurice, Ph. D., 245 West 101st St., New York, N. Y. (57). 1908. **K**
- Meyer, John Franklin, Ph. D., care Westinghouse Lamp Co., Bloomfield, N. J. (51). **C**
- *Meyer, Willy, M. D., Professor of Surgery, New York Post-Graduate Medical School and Hospital, New York, N. Y. (57). 1909. **K**
- Meyers, Charles H., M. D., 1556 Elm St., Cincinnati, Ohio. (60). **K**
- Meyers, Ira Benton, University of Chicago, Chicago, Ill. (58). **E L**
- *Meylan, George Louis, M. D., Adjunct Professor of Physical Education, Columbia University, New York, N. Y. (53). 1907. **H K L**
- Meyrowitz, Emil B., 104 East 23d St., New York, N. Y. (57). **A B C D**
- *Mezes, Sidney Edward, Professor of Philosophy, University of Texas, Austin, Tex. (50). 1901. **I**
- Michael, Ellis LeRoy, Marine Biological Laboratory, La Jolla, Cal. (57). **F**
- Michael, Louis Guy, Ames, Iowa. (58). **C**

MEMBERS AND FELLOWS.

- *Michelson, Albert Abraham, Ph. D., Professor of Physics, University of Chicago, Chicago, Ill. (26). 1879. **B**
- *Middlekauff, George Wiles, Ph. D., Bureau of Standards, Washington, D. C. (57). 1908. **B**
- Miles, Egbert J., 6032 Ellis Ave., Chicago, Ill. (57). **A**
- Miles, George F., U. S. Department of Agriculture, Washington, D. C. (54). **E G**
- Miles, George W., Consulting Chemist, 29 Central St., Boston, Mass. (58). **C**
- *Milham, Willis I., Williams College, Williamstown, Mass. (47). 1905. **A B**
- Millar, John M., Escanaba, Mich. (50). **E G**
- Millen, John D., E. M., General Manager, Mt. Bischoff Tin Mining Co., Waratah, Tasmania. (60). **C D**
- Miller, Adam Marion, M. D., College of Physicians and Surgeons, Columbia University, New York, N. Y. (60). **K**
- *Miller, Arthur M., Professor of Geology and Zoology, State University of Kentucky, Lexington, Ky. (45). 1898. **E F**
- *Miller, Benjamin LeRoy, Ph. D., Lehigh University, South Bethlehem, Pa. (50). 1907. **E**
- Miller, C. R., 21 East 9th St., New York, N. Y. (57).
- Miller, Charles W., Shawnee, Pa. (60).
- Miller, D. McL., M. D., Oconomowoc, Wis. (60). **K**
- *Miller, Dayton Clarence, Professor of Physics, Case School of Applied Science, Cleveland, Ohio. (44). 1898. **A B**
- Miller, Edgar C. L., M. D., 66 Rosedale Court, Detroit, Mich. (58). **K**
- MILLER, EDGAR G., Equitable Building, Baltimore, Md. (29). **A**
- Miller, Dr. Eli P., 37-41 West 26th St., New York, N. Y. (57).
- Miller, Emerson R., Professor of Pharmaceutical Chemistry, Auburn, Ala. (52). **C**
- *Miller, Ephraim, Ph. D., Professor of Mathematics and Astronomy, University of Kansas, Lawrence, Kans. (50). 1901. **A**
- Miller, Eric Rexford, Weather Bureau, Madison, Wis. (58). **A B**
- Miller, Ernest A., 113 North Tioga St., Ithaca, N. Y. (60). **A**
- Miller, F. Joseph, M. E., 1312 Bristol St., Philadelphia, Pa. (60). **D**
- Miller, Francis Garner, University Station, Seattle, Wash. (57). **G**
- *Miller, Frank E., Professor of Mathematics, Otterbein University, Westerville, Ohio. (44). 1909. **A**
- *Miller, Fred. J., Editor of "American Machinist," Box 27, Center Bridge, Pa. (51). 1906. **D I**
- *Miller, George A., Ph. D., 1103 West Illinois St., Urbana, Ill. (46). 1898. **A**
- Miller, George Norton, M. D., 811 Madison Ave., New York, N. Y. (50). **H I K**
- *Miller, Gerrit S., U. S. National Museum, Washington, D. C. (51). 1906. **F**

- Miller, Henry Huntington, E. M., Mineral Development Co., Apartado 95, Guanajuato, Mexico. (50). **CDE**
- Miller, Henry Lanark, C. E., Cordoba via y Obras F. C. C. C., Argentine Republic, S. A. (60). **D**
- Miller, James Shannon, Professor of Mathematics, Emory and Henry College, Emory, Va. (51). **AB**
- *Miller, John Anthony, Ph. D., Professor of Mechanics and Astronomy, Swarthmore College, Swarthmore, Pa. (31). 1906. **A**
- *Miller, John Craig, M. D., Professor of Natural Science, Lincoln University, Pa. (50). 1906. **BC**
- Miller, Joseph L., M. D., 5315 Greenwood Ave., Chicago, Ill. (60). **K**
- *Miller, Miss Louise Klein, 2540 Prospect Ave., Cleveland, Ohio. (50). 1906. **EGIL**
- Miller, Prof. Merritt Finley, University of Missouri, Columbia, Mo. (58).
- Miller, Newman, Director, The University of Chicago Press, 5515 Woodlawn Ave., Chicago, Ill. (58). **EI**
- Miller, Samuel H., M. D., 530 Main St., Joplin, Mo. (60). **K**
- Miller, Shirley Putnam, Zoologist, South Dakota State College, Brookings, S. Dak. (58). **F**
- *Miller, W. Lash, 50 St. Alban St., Toronto, Canada. (60). 1910. **C**
- *Miller, Willet G., Bureau of Mines, Toronto, Canada. (58). 1910. **E**
- *Miller, William Snow, M. D., Associate Professor of Anatomy, University of Wisconsin, Madison, Wis. (42). 1894. **F**
- Millet, Francis Davis, 6 East 23d St., New York, N. Y. (57).
- *Millikan, Robert Andrews, Associate Professor of Physics, University of Chicago, Chicago, Ill. (58). 1910. **B**
- *Millis, Lt.-Col. John, U. S. Engineer Office, Cleveland, Ohio. (48). 1906. **ABDE**
- Mills, Frank Smith, Professor of Geology, Andover, Mass. (52). **DE**
- *Mills, James Edward, Ph. D., Instructor in Physical Chemistry University of North Carolina, Chapel Hill, N. C. (52). 1910. **C**
- *Mills, Prof. Wesley, McGill University, Montreal, Canada. (31). 1886. **FH**
- *Mills, William C., Page Hall, Ohio State University, Columbus, Ohio. (48). 1902. **FH**
- Mills, Win. Park, M. D., Box 58, Missoula, Mont. (52). **K**
- *Millsbaugh, Chas. Frederic, M. D., Curator, Department of Botany, Field Museum of Natural History, Chicago, Ill. (57). 1907. **EGL**
- Millsbaugh, Joseph G., M. D., Little Falls, Minn. (60). **K**
- MILNE, DAVID, 2030 Walnut St., Philadelphia, Pa. (51).
- Milroy, Ina A., Ph. D., 1617 Blanding St., Columbia, S. C. (60). **BC**
- Miner, Chas. A., C. E., 1673 Park Road, Washington, D. C. (58). **D**
- *Miner, James Burt, Ph. D., University of Minnesota, Minneapolis, Minn. (52). 1906. **HL**
- Miner, Roy Waldo, Assistant Curator of Invertebrate Zoology, American Museum of Natural History, New York, N. Y. (57). **F**

MEMBERS AND FELLOWS.

- Minnick, John Harrison, 416 So. Dunn St., Bloomington, Ind. (61).
 Minns, Miss Susan, 14 Louisburg Square, Boston, Mass. (32).
 Minor, John C., Jr., Saratoga Springs, N. Y. (60). **C**
 *MINOT, CHARLES SEDGWICK, M. D., LL. D., Harvard Medical School,
 Boston, Mass. (28). 1880. **F K**
 Minot, Miss L. S., 245 Marlborough St., Boston, Mass. (60).
 Minot, Vredenburg, Point Loma Homestead, Point Loma, Cal. (60).
 Mitchell, Andrew S., Chief, Food and Drug Inspection Laboratory, Old
 Capitol Bldg., St. Paul, Minn. (61). **C**
 MITCHELL, ARTHUR M., 68 Wall St., New York, N. Y. (57).
 Mitchell, Charles Anderson, Ph. D., Bellevue, Nebr. (58). **H**
 Mitchell, Evelyn Groesbeek, Smithsonian Institution, Washington, D. C.
 (54). **F**
 Mitchell, George, E. M., 1367 South Figueroa St., Los Angeles, Cal.
 (60). **D**
 Mitchell, Guy K., E. E., 1046 Argyle Ave., Baltimore, Md. (60). **D**
 *Mitchell, Henry Bedinger, Professor of Mathematics, Columbia Univer-
 sity, New York, N. Y. (50). 1906. **A D**
 Mitchell, John Pearce, Stanford University, Cal. (51). **C**
 *Mitchell, Samuel Alfred, Ph. D., Columbia University, New York, N. Y.
 (52). 1906. **A B**
 Mitchell, Walter L., 707 Parker St., Newark, N. J. (60). **C**
 *Mitchell, Walter Mann, Ph. D., 112 North 34th St., Philadelphia, Pa.
 (54). 1908. **A B**
 Mitchell, William Francis, M. D., Lancaster, Mo. (51). **H**
 Mitzmain, Maurice Bruin, Entomological Department, University of
 California, Berkeley, Cal. (58). **F**
 Mixer, Chas. Adam, C. E., Rumford Falls Power Co., Rumford Falls, Me.
 (51). **D**
 Mixer, Frederick Knowlton, 313 Delaware Ave., Buffalo, N. Y. (35). **E**
 Mixer, George, 2d, 180 Marlborough St., Boston, Mass. (60).
 *Mixer, Samuel Jason, M. D., 180 Marlborough St., Boston, Mass. (58).
 1909. **K**
 *Moenkhaus, Wm. J., Ph. D., Professor of Physiology, University of
 Indiana, Bloomington, Ind. (51). 1903. **F K**
 Moerk, Frank X., 145 North 10th St., Philadelphia, Pa. (60). **C**
 Moffatt, Will Sayer, M. D., 181 La Salle St., Chicago, Ill. (58). **K**
 *Mohler, John F., Professor of Physics, Dickinson College, Carlisle, Pa.
 (44). 1905. **B**
 Mohr, Louis, M. E., 349 West Illinois St., Chicago, Ill. (50).
A B D E F H I K L
 Mojonner, Timothy, care Helvetia Milk Condensing Co., Delta, Ohio.
 (52). **C**
 *Moler, Geo. Sylvanus, 408 University Ave., Ithaca, N. Y. (38). 1892.
B
 Molera, Eusebius Joseph, C. E., 2025 Sacramento St., San Francisco, Cal.
 (50). **D**

- Molitor, Prof. David A., College of Civil Engineering, Cornell University, Ithaca, N. Y. (51). **ADL**
- Molitor, Frederic Albert, 2 Rector St., New York, N. Y. (51). **DE**
- Monae-Lesser, Dr. A., 16 West 68th St., New York, N. Y. (57).
- Monahan, J. J., M. D., Encampment, Wyo. (60). **K**
- Monfort, Wilson F., Chemist to Water Commission, 77 East May St., St. Louis, Mo. (48). **C**
- Monmonier, J. Carroll, M. D., Dickeyville, Md. (60). **K**
- Monroe, Joseph E., Professor of Physics and Chemistry, Montana State Normal College, Dillon, Mont. (50). **BC**
- *Monroe, Paul, Ph. D., Professor of History of Education, Columbia University, New York, N. Y. (57). 1910. **IL**
- *Monroe, Will Seymour, Professor of Psychology, State Normal School, Montclair, N. J. (49). 1901. **HL**
- Monsen, Frederick I., Salmagundi Club, 14 West 12th St., New York, N. Y. (60). **H**
- *Montague, William Pepperell, Adjunct Professor of Philosophy, Columbia University, New York, N. Y. (54). 1906. **HI**
- Montgomery, Edmund B., M. D., 134 North 8th St., Quincy, Ill. (51). **IK**
- Montgomery, Edmund D., M. D., Liendo Plantation, Hempstead, Tex. (50). **HK**
- *Montgomery, Henry, Ph. D., Curator of Museum, University of Toronto, Canada. (54). 1907. **EFH**
- Montgomery, John R., 181 La Salle St., Chicago, Ill. (58).
- *Montgomery, Thomas H., Jr., Ph. D., Professor of Zoology University of Pennsylvania, Philadelphia, Pa. (58). 1910. **F**
- Moodie, Roy Lee, University of Kansas, Lawrence, Kans. (60). **K**
- *Moody, Mrs. Agnes Claypole, Ph. D., 2826 Garber St., Berkeley, Cal. (46). 1899. **F**
- Moody, Herbert Raymond, Ph. D., 23 Hamilton Terrace, New York, N. Y. (58). **C**
- Moody, Mrs. Mary Blair, M. D., 154 East Grand Ave., New Haven, Conn. (25). **EF**
- *Moody, Robert Orton, M. D., Assistant Professor of Anatomy, University of California, Berkeley, Cal. (35). 1892. **KL**
- *Moody, William Albion, Professor of Mathematics, Bowdoin College, Brunswick, Me. (50). 1906. **A**
- Mooers, Charles Ansel, University of Tennessee, Knoxville, Tenn. (55). **C**
- *Moore, Andrew Charles, Professor of Biology and Geology, University of South Carolina, Columbia, S. C. (54). 1909. **FG**
- Moore, Mrs. Arthur H., The Rectory, Stanstead, Quebec, Canada. (32). **H**
- Moore, Benjamin P., 1303 North Calvert St., Baltimore, Md. (60).
- *Moore, Burton E., Department of Physics, University of Nebraska, Lincoln, Nebr. (41). 1899. **B**

MEMBERS AND FELLOWS.

- Moore, C. C., Bureau of Chemistry, U. S. Department of Agriculture, Washington, D. C. (58). **C**
- *Moore, Clarence B., 1321 Locust St., Philadelphia, Pa. (44). 1897. **H**
- *Moore, Eliakim Hastings, Ph. D., LL. D., Professor of Mathematics, University of Chicago, Chicago, Ill. (52). 1903. **A L**
- Moore, Elwood S., Ph. D., Professor of Geology and Mineralogy, Pennsylvania State College, State College, Pa. (61). **E**
- Moore, Frank C., New Hampshire College, Durham, N. H. (58). **A**
- Moore, Frank C., 70 Columbia Heights, Brooklyn, N. Y. (61). **E**
- *Moore, George Thomas, Ph. D., Missouri Botanical Garden, St. Louis, Mo. (49). 1901. **G**
- *Moore, J. Percy, Ph. D., Assistant Professor of Zoology, University of Pennsylvania, Philadelphia, Pa. (54). 1906. **F**
- *Moore, Joseph H., Ph. D., Casilla 1219, Santiago, Chile. (60). 1910. **A B**
- *Moore, Philip North, Geologist and Mining Engineer, Laclede Building, St. Louis, Mo. (50). 1903. **E**
- Moore, Richard Bishop, Professor of Chemistry, Butler College, Indianapolis, Ind. (60). **C**
- Moore, Richard Mott, 74 South Fitzhugh St., Rochester, N. Y. (60). **F**
- Moore, Robert, Consulting Engineer, 61 Vandeventer Place, St. Louis, Mo. (51). **D I**
- Moore, Stanley H., 505 Selma Ave., Webster Groves, Mo. (50). **A D**
- Moore, Veranus Alva, M. D., 914 East State St., Ithaca, N. Y. (57). **K L**
- Moore, William, British Agricultural College, Potchefstroom, Transvaal, So. Africa. (60). **G**
- *Moore, Prof. Willis Luther, Chief, Weather Bureau, U. S. Department of Agriculture, Washington, D. C. (44). 1897. **B E**
- *Moorehead, Warren King, Curator of Museum, Phillips Academy, Andover, Mass. (38). 1890. **H**
- *More, Louis Trenchard, Ph. D., Professor of Physics, University of Cincinnati, Cincinnati, Ohio. (58). 1910. **B**
- Morgan, A. C., U. S. Department of Agriculture, Washington, D. C. (54). **F**
- *Morgan, H. A., care University of Tennessee, Knoxville, Tenn. (50). 1906. **F**
- Morgan, J. Howard, M. D., 43 High St., Westerly, R. I. (60). **K**
- *Morgan, J. Livingston R., Ph. D., Professor of Physical Chemistry, Columbia University, New York, N. Y. (58). 1910. **C**
- Morgan, James Dudley, M. D., 919 15th St. N. W., Washington, D. C. (60). **K**
- *Morgan, Thomas Hunt, Ph. D., Professor of Zoology, Columbia University, New York, N. Y. (54). 1906. **F**
- *Morgan, Wm. Conger, Ph. D., Assistant Professor of Chemistry, University of California Berkeley, Cal. (52). 1906. **C L**

- Morgan, William Fellowes, Short Hills, N. J. (27). **I L**
- Morgan, William Rogers, 1155 Broadway, New York, N. Y. (57).
- Morgulis, Sergius, Conant Hall, 27 A, Cambridge, Mass. (61). **F**
- Moriarta, Douglas C., M. D., 511 Broadway, Saratoga Springs, N. Y. (60). **K**
- Morison, Robert S., 17 Farrar St., Cambridge, Mass. (60).
- *Morley, Edward Williams, Ph. D., LL. D., Professor of Chemistry, West Hartford, Conn. (18). 1876. **B C E**
- Morrell, Albro David, Professor of Biology, Hamilton College, Clinton, N. Y. (60). **F**
- Morrey, Charles Bradfield, M. D., Professor of Bacteriology, Ohio State University, Columbus, Ohio. (48). **F**
- *Morrill, Austin W., Ph. D., Arizona Horticultural Commission, Phoenix, Ariz. (54). 1906. **F**
- Morrill, Charles Herbert, Hyannis, Mass. (61). **F**
- Morrill, Charles V., College of Medicine, Syracuse, N. Y. (56). **F**
- Morrill, Wm. C., E. E., 277 Broadway, New York, N. Y. (58). **D**
- Morris, Earl L., Hall of Records, San José, Cal. (58). **F G**
- Morris, Edward Lyman, 428 East 12th St., Flatbush, Brooklyn, N. Y. (52). **G**
- Morris, Frederic K., 485 Central Park, West, New York, N. Y. (58). **E**
- Morris, George E., 34 Appleton St., Waltham, Mass. (61).
- Morris, Henry C., 924 Marquette Building, Chicago, Ill. (58).
- Morris, Henry Lewis, 32 Liberty St., New York, N. Y. (49).
- Morris, James Lucien, Instructor in Biology and Chemistry, Hillsdale College, Hillsdale, Mich. (58). **C**
- Morris, Lardner V., C. E., 1964 Broadway, Brooklyn, N. Y. (58). **D**
- MORRIS, NEWBOLD, 115 East 73d St., New York, N. Y. (49). **L**
- Morris, W. Cullen, C. E., 4 Irving Place, New York, N. Y. (60). **D**
- Morris, Wilson C., Ph. D., Professor of Physics, State Normal School, Warrensburg, Mo. (60). **A B**
- Morrison, Alva, 53 Middle St., Braintree, Mass. (60).
- Morrison, Gilbert B., McKinley High School, St. Louis, Mo. (48). **B D I L**
- Morrison, Henry C., Concord, N. H. (61).
- Morrison, Thomas, Diamond Bank Building, Pittsburg, Pa. (51). **D**
- Morrison, William B., M. D., 145 West Washington St., Hagerstown, Md. (60). **K**
- *Morse, Edward Sylvester, Director, Peabody Museum, Salem, Mass. (18). 1874. **F H**
- *Morse, Fred. Winslow, Professor of Organic Chemistry, New Hampshire College, Durham, N. H. (51). 1906. **C**
- *Morse, Harry Wheeler, Ph. D., Assistant Professor of Physics, Jefferson Physical Laboratory, Cambridge, Mass. (58). 1910. **B C**
- Morse, Max, Ph. D., Professor of Biology, Trinity College, Hartford, Conn. (51). **FK**
- Morse, Warner Jackson, Agricultural Experiment Station, Orono, Me. (52). **G**

MEMBERS AND FELLOWS.

- Morse, Willard S., Seaford, Del. (50). **CD**
- Morse, William Clifford, Instructor in Geology, Ohio State University, Columbus, Ohio. (60). **E**
- Morse, William H., 1937 Lagunia St., Santa Barbara, Cal. (60). **G**
- Morton, George L., U. S. Patent Office, Washington, D. C. (52). **BD**
- Morton, Henry Samuel, 141 Broadway, New York, N. Y. (57). **D**
- Moschcowitz, Alex. V., M. D., 925 Madison Ave., New York, N. Y. (56).
K
- Moseley, Alexander Willet, Professor of Applied Mechanics, Lewis Institute, Chicago, Ill. (60). **D**
- Moseley, Edward Augustus, Secretary, Interstate Commerce Commission, 1317 F St. N. W., Washington, D. C. (56). **I**
- *Moseley, Edwin L., High School, Sandusky, Ohio. (34). 1902. **EF GK**
- Moser, Albert Leo Brecht, C. E., U. S. Reclamation Service, River Portal, Colo. (60). **D**
- *Moser, Captain Jefferson Franklin, U. S. N., Retired, 85 2d St., San Francisco, Cal. (28). 1889. **E**
- *Moses, Alfred Joseph, Ph. D., Professor of Mineralogy, Columbia University, New York, N. Y. (49). 1902. **E**
- *Moses, Thomas Freeman, M. D., Worcester Lane, Waltham, Mass. (25). 1883. **E H K**
- Mosher, Charles D., 30 Church St., New York, N. Y. (53). **D**
- Mott, Howard Schenk, 221 West 123d St., New York, N. Y. (57). **I**
- Mott, William E., C. E., Carnegie Technical Schools, Pittsburg, Pa. (60). **D**
- Mott, William Roy, 125 East Gorham St., Madison, Wis. (60). **C**
- *Mottet, Murray Galt, M. D., 1841 Summit Place, N. W., Washington, D. C. (51). 1910. **CK**
- Mottet, William D. B., Jr., E. M., care M. A. Hanna and Co., Crystal Falls, Mich. (60). **D**
- *Mottier, David M., Ph. D., Professor of Botany, University of Indiana, Bloomington, Ind. (50). 1901. **G**
- Moulton, C. Robert, 804 Hitt St., Columbia, Mo. (58). **C**
- Moulton, Dudley, Ferry Bldg., San Francisco, Cal. (57).
- *Moulton, Forest Ray, Ph. D., Instructor in Celestial Mechanics, University of Chicago, Chicago, Ill. (50). 1901. **A**
- Moulton, Mace, C. E., The Ansonia, 73d and Broadway, New York, N. Y. (60). **D**
- Moulton, Richard Green, 5053 Washington Ave., Chicago, Ill. (58).
- Moulton, W. H., care Cleveland Cliffs Iron Co., Ishpeming, Mich. (53). **D**
- Mount, William D., M. E., General Superintendent, Mathieson Alkali Works, Saltville, Va. (51). **CD**
- Mowlds, Eugene, C. E., American Bridge Co., Edgemoor, Del. (60). **D**
- Mowry, Eugene C., M. D., 355 West 42d St., New York, N. Y. (60). **K**
- Moyer, James Ambrose, Assistant Professor of Mechanical Engineering, University of Michigan, Ann Arbor, Mich. (54). **D**

- Moyer, Lycurgus R., C. E., Montevideo, Minn. (50). **G**
- *Muckenfuss, Anthony Moultrie, Ph. D., Professor of Chemistry, University of Mississippi, University, Miss. (52). 1910. **C**
- Mudd, Harvey G., M. D., Humboldt Building, St. Louis, Mo. (60). **K**
- Mueller, Edward, Ph. D., Assistant Professor of Chemistry, 519 North Michigan St., South Bend, Ind. (52). **BCK**
- Muhlberg, William, M. D., 2617 Vine St., Cincinnati, Ohio. (57). **K**
- Muhse, Mrs. A. C., Ph. D., 52 Manor House, Washington, D. C. (58). **F**
- *Muir, John, LL. D., Martinez, Cal. (22). 1900. **G**
- Mulford, Miss A. Isabel, McKinley High School, St. Louis, Mo. (45). **GL**
- Mullenix, Rollin C., Yankton College, Yankton, S. Dak. (60).
- Mulliken, Samuel Parsons, Ph. D., Massachusetts Institute of Technology, Boston, Mass. (43). 1899.
- Muncaster, Stewart Brown, M. D., 907 16th St. N. W., Washington, D. C. (50). **K**
- Munkwitz, Frank H., M. D., 1213-17 Wells Building, Milwaukee, Wis. (58). **K**
- MUNN, JOHN P.,.....(57).
- *Munro, John Cummings, M. D., Surgeon-in-Chief, Carney Hospital, Boston Mass. (50). 1906. **K**
- *MUNROE, CHARLES EDWARD, Ph. D., George Washington University, Washington, D. C. (22). 1874. **C**
- Munroe, James Phinney, 79 Summer St., Boston, Mass. (58). **IL**
- Munson, John P., Ph. D., 706 No. Anderson St., Ellensburg, Wash. (58).
F I K L
- Munson, Joseph Theodore, 301 West Woodard St., Denison, Tex. (55).
C G
- *Munson, Welton M., Ph. D., West Virginia Experiment Station, Morgantown, W. Va. (41). 1899. **G**
- Munson, William Henry, Teacher of Zoology, State Normal School, Winona, Minn. (51). **F**
- *Münsterberg, Hugo Ph. D., M. D., LL. D., Harvard University, Cambridge, Mass. (47). 1898. **H**
- Murbach, Louis, Ph. D., 950 Cass Ave., Detroit, Mich. (54). **F**
- *Murdoch, John, Public Library, Boston, Mass. (29). 1886. **FH**
- Murdock, George J., Mechanician and Inventor, 33 Wallace Place, Newark, N. J. (50). **ABD**
- Murdy, Robert L., M. D., Aberdeen, S. Dak. (60). **K**
- Murfee, Hopson Owen, Marion Institute, Marion, Ala. (61).
- *Murlin, John Raymond, Ph. D., Assistant Professor of Physiology, New York University Medical School, New York, N. Y. (54). 1906. **K**
- Murphy, Felix, M. D., Doylestown, Pa. (60). **K**
- Murphy, Francis H., E. E., 3409 4th St., Des Moines, Iowa. (60). **D**
- *Murphy, John B., M. D., 3305 Michigan Ave., Chicago, Ill. (58). 1909.
K
- Murphy, John Z., M. E., 1949 Lexington St., Chicago, Ill. (58). **D**

MEMBERS AND FELLOWS.

- Murray, Benjamin Lindley, 148 Bryant St., Rahway, N. J. (57). **C**
- *Murray, Daniel Alexander, Ph. D., Professor of Applied Mathematics, McGill University, Montreal, Canada. (47). 1899. **A**
- Murray, James Jardine, E. M., Orogrande, New Mexico. (60). **D**
- Murray, John Francis, C. E., 607 Broad St. Station, Philadelphia, Pa. (60). **D**
- Murray, T. Morris, M. D., 2107 Massachusetts Ave., Washington, D. C. (60). **K**
- *Musser, John Herr, M. D., 1927 Chestnut St., Philadelphia, Pa. (54). 1906. **IK**
- Myers, Edward W., 375 Arcade Building, Greensboro, N. C. (49)
- *Myers, George William, Ph. D., Professor of Mathematics and Astronomy, University of Chicago, Chicago, Ill. (46). 1899. **A**
- Myers, Nathaniel, 135 Central Park West, New York, N. Y. (57).
- Myers, Victor C., 116 South Lake Ave., Albany, N. Y. (60). **C**
- *Myers, William Shields, 71 Nassau St., New York, N. Y. (43). 1898. **C**
- *Nachtrieb, Henry Francis, Professor of Animal Biology, University of Minnesota, Minneapolis, Minn. (53) 1905. **F**
- *Nagle, James C., Professor of Civil Engineering, A. and M. College of Texas, College Station, Texas. (40). 1893. **BD**
- Nakamura, Keijiro, E. M., care Sumitomo's Smelting Works, Shisaka-Shima, Ochigun, Iyo, Japan. (60). **D**
- Nash, Albert W., M. D., Jefferson, Me. (60). **K**
- Nash, Arthur Douglas, 280 State St., Flushing, L. I., N. Y. (57). **C**
- *Nash, Geo. V., 2587 Bainbridge Ave., New York, N. Y. (47). 1906. **G**
- *Nason, Frank L., West Haven, Conn. (36). 1888. **E**
- Nason, William A., M. D., Algonquin, Ill. (58). **F**
- *Neal, Herbert Vincent, Professor of Biology, Knox College, Galesburg, Ill. (53). 1905. **F**
- Neale, Henry Marion, M. D., Upper Lehigh, Pa. (58). **K**
- Neall, Newitt Jackson, E. E., 12 Pearl St., Boston, Mass. (60). **D**
- Needham, F. M., Riverside, Ill. (58). **F**
- *Needham, James George, Ph. D., Assistant Professor of Limnology, Cornell University, Ithaca, N. Y. (45). 1898. **FL**
- Needham, John B., Jr., Salem Public School, Salem, Mo. (54).
- Neely, John Crosby, E. E., 181 La Salle St., Chicago, Ill. (60). **D**
- *Nef, John Ulric, Ph. D., Professor of Chemistry, University of Chicago, Chicago, Ill. (39). 1891. **C**
- Neff, George Rea, M. D., Farmington, Iowa. (58). **FHK**
- Neiler, Samuel Graham, Consulting and Designing Engineer, 1409 Manhattan Building, Chicago, Ill. (50). **D**
- *Neill, Charles P., Ph. D., U. S. Commissioner of Labor, Department of Commerce and Labor, Washington, D. C. (54). 1906. **I**
- Neilson, John, 311 Madison Ave., New York, N. Y. (57). **A**
- Neilson, Walter Hopper, M. D., Editor "Milwaukee Medical Journal," 114 Garfield Ave., Milwaukee, Wis. (51). **K**
- Nellis, William Jacob, M. D., 210 State St., Albany, N. Y. (60). **K**

- *Nelson, Alfred Brierly, M. D., 443 West Lexington Ave., Danville, Ky. (30). 1882. **A B D**
- Nelson, Allen H., 64 Fifth Ave., New York, N. Y. (61).
- *Nelson, Aven, Ph. D., Professor of Botany, University of Wyoming, Laramie, Wyo. (50). 1903. **G**
- *Nelson, Edward William, U. S. Department of Agriculture, Washington, D. C. (54). 1906. **F**
- Nelson, James Allen, Ph. D., Bureau of Entomology, U. S. Department of Agriculture, Washington, D. C. (55). **F**
- Nelson, James W., M. E., 61 Livingston St., Brooklyn, N. Y. (60). **D**
- Nelson, N. L. T., Ph. D., Des Moines College, Des Moines, Iowa. (53). **G**
- Nelson, Wm., United Bank Building, Paterson, N. J. (42). **H**
- Nesmith, Henry E., Jr., 82 Beaver St., New York, N. Y. (30). **H**
- Ness, H., 813 Lincoln Ave., Ames, Iowa. (58). **F**
- Nettelroth, Alexander, M. D., 629 Baxter Ave., Louisville, Ky. (60). **K**
- Neu, Daniel Alfred, (55). **G**
- Neuman, George Händel, M. D., 194 State St., Albany, N. Y. (60). **K**
- *Newcomb, Harry Turner, R. F. D. No. 1, Bethesda, Md. (47). 1898. **I**
- Newcomb, William W., M. D., 34 Mt. Vernon Ave., Detroit, Mich. (58). **F K**
- *Newcombe, Frederick Charles, Ph. D., Professor of Botany, University of Michigan, Ann Arbor, Mich. (43). 1896. **G**
- Newell, Lyman C., Ph. D., Professor of Chemistry, Boston University, Boston, Mass. (60). **C**
- Newell, Marcus A., M. D., Sheridan, Wyo. (60). **K**
- Newell, William, M. E., Fidelity and Casualty Co., 97 Cedar St., New York, N. Y. **D**
- *Newell, Wilmon, College Station, Texas. (53). 1906. **F G**
- Newhart, Horace, M. D., 910 Donaldson Building, Minneapolis, Minn. (60). **K**
- Newkirk, Burt L., College of Engineering, University of Minnesota, Minneapolis, Minn. (58). **D**
- Newkirk, Chauncey F., 2482 North Hermitage Ave., Chicago, Ill. (58).
- Newkirk, Johnson, General Chemical Co., Camden, N. J. (58). **C**
- *Newland, David Hale, Assistant State Geologist, State Museum, Albany, N. Y. (54). 1909. **E**
- *Newlands, James A., Chemist to State Board of Health, State Chemical Laboratory, Middletown, Conn. (57). 1909. **C K**
- Newman, Arthur C., Armstrong Manual Training School, Washington, D. C. (61).
- *Newman, Horatio H., Ph. D., Assistant Professor of Zoology, University of Texas, Austin, Tex. (58). 1909. **F**
- Newman, Hugo, 538 West 150th St., New York, N. Y. (61). **L**
- *Newsom, John Flesher, Ph. D., Professor of Mining Geology, Leland Stanford Junior University, Stanford University, Cal. (44). 1903. **E**
- Nicholl, William Evan, Hastings College, Hastings, Nebr. (60). **H L**

MEMBERS AND FELLOWS.

- Nichols, Austin P., 4 Highland Ave., Haverhill, Mass. (37). **C**
- Nichols, Charles Lemuel, M. D., 38 Cedar St., Worcester, Mass. (60).
K
- *Nichols, Edward Leamington, Ph. D., Professor of Physics, Cornell University, Ithaca, N. Y. (28). 1881. **BC**
- *Nichols, Ernest Fox, LL. D., President, Dartmouth College, Hanover, N. H. (41). 1893. **B**
- Nichols, M. Louise, Ph. D., Teacher of Geography and Zoology, Philadelphia Normal School, 3207 Summer St., Philadelphia, Pa. (54).
EFL
- Nichols, Susan P., Ph. D., Instructor in Botany, Oberlin College, Oberlin, Ohio. (60). **G**
- *Nichols, Walter Smith, 100 William St., New York, N. Y. (54). 1906.
AB
- *Nichols, Wm. H., 25 Broad St., New York, N. Y. (57). 1908. **C**
- Nichols, William Wallace, M. E., 71 Broadway, New York, N. Y. (60). **D**
- Nicholson, Edgar H., 33 Kirkland St., Cambridge, Mass. (60). **A**
- Nicholson, Isaac F., 1018 St. Paul St., Baltimore, Md. (60).
- Nicholson, Joseph L., M. D., 400 Penn St., Camden, N. J. (60). **K**
- Nicholson, Louise, Madison Academy, Madison, N. J. (60). **A**
- Nickerson, George W., M. D., 55 Central St., Stoneham, Mass. (60). **K**
- Nickerson, Winfield S., M. D., 517 Essex St., Minneapolis, Minn. (60).
FK
- *Nicol, Wm., Professor of Mineralogy, School of Mining, Kingston, Canada. (57). 1909. **E**
- Nicola, Frank F., Farmers Bank Building, Pittsburg, Pa. (50). **D**
- Nies, Rev. James B., Ph. D., London City and Midland Bank, Ltd., Threadneedle St., London, England. (58). **H**
- Niles, Robert Lossing, 20 Broad St., New York, N. Y. (47). **BCD**
- *Nipher, Francis Eugene, Professor of Physics, Washington University, St. Louis, Mo. (24). 1876. **B**
- Nisbet, Walter O., M. D., Charlotte, N. C. (58). **K**
- Nixon, George, E. E., 709 Front Ave., Spokane, Wash. (60). **D**
- Noble, Albert E., E. M., 20th St. and Wilmer Ave., Anniston, Ala. (60).
D
- Noble, Alfred, 7 East 42nd St., New York, N. Y. (57).
- *Noble, Charles Albert, 2224 Piedmont Ave., Berkeley, Cal. (60). 1910. **A**
- Noble, Harriet I., M. D., 3036 Oxford St., Philadelphia, Pa. (58). **K**
- Noble, Levi F., 192 Genesee St., Auburn, N. Y. (54). **E**
- Noer, Julius, M. D., Stoughton, Wis. (60). **K**
- *Nolan, Edw. J., M. D., Academy of Natural Sciences, Philadelphia, Pa. (29). 1890. **FK**
- Nolte, Lewis G., M. D., Senn's Block, Milwaukee, Wis. (51). **K**
- Norbury, Frank Parsons, M. D., Kankakee State Hospital, Hospital, Ill. (58). **HIKL**
- Nōrgaard, Victor A., V. S., Honolulu, Hawaii. (58). **FK**
- *Norris, Chas., M. D., 1696 Broadway, New York, N. Y. (57). 1908. **K**

- Norris, F. O., M. D., Eagle Lake, Tex. (60). **K**
- *Norris, Harry Waldo, Professor of Zoology, Iowa College, Grinnell, Iowa. (53). 1908. **F**
- *Norris, Prof. James F., 124 Anawan Ave., West Roxbury, Mass. (54). 1906. **C**
- Norsworthy, Naomi, Tutor in Psychology, Teachers College, Columbia University, New York, N. Y. (54). **K**
- North, Charles E., M. D., Hudson Terminal, 30 Church St., New York, N. Y. (60). **D K**
- North, W. B., 2140 Robinwood Ave., Toledo, Ohio. (60). **C**
- *Northrup, Edwin Fitch, Ph. D., 4901 Stenton Ave., Philadelphia, Pa. (58). 1910. **B D**
- Norton, A. Wellington, LL. D., Madison, S. D. (52). **I**
- Norton, Arthur Orlo, Assistant Professor of the History and Art of Teaching, Harvard University, Cambridge, Mass. (58).
- Norton, Prof. Arthur O., Harvard University, Cambridge, Mass. (58).
- Norton, Charles E., M. D., 118 Lisbon St., Lewiston, Me. (60). **K**
- *Norton, J. B. S., Professor of Botany, Maryland Agricultural College, College Park, Md. (47). 1899. **G**
- *Norton, J. Pease, Ph. D., Assistant Professor of Economics and Statistics, Yale University, New Haven, Conn. (57). 1907. **I**
- *Norton, Jesse Baker, U. S. Department of Agriculture, Washington, D. C. (52). 1909. **G**
- Norton, John Foote, 5737 Monroe Ave., Chicago, Ill. (58). **C**
- Norton, John H., Citrus Experiment Station, Riverside, Cal. (58). **C**
- *NORTON, THOMAS H., U. S. Consul, Chemnitz, Saxony, Germany. (35). 1887. **C**
- *Norwood, Charles Joseph, Professor of Mining and Metallurgy, State University of Kentucky, Lexington, Ky. (54). 1906. **E**
- Notman, George, 99 John St., New York, N. Y. (57).
- Novak, Edw. E., M. D., New Prague, Minn. (60). **K**
- *Novy, Frederick G., M. D., Professor of Bacteriology, University of Michigan, Ann Arbor, Mich. (36). 1889. **C K**
- *Noyes, Arthur Amos, Ph. D., Mass. Institute of Technology, Boston, Mass. (45). 1897. **C**
- Noyes, La Verne, 1450 Lake Shore Drive, Chicago, Ill. (58).
- *Noyes, Wm. Albert, Ph. D., Professor of Chemistry, University of Illinois, Urbana, Ill. (32). 1885. **C**
- Nunn, P. N., Provo, Utah. (58). **D**
- *Nunn, Richard J., M. D., 5 York St., East, Savannah, Ga. (33). 1906. **B H K**
- Nutt, John Joseph, The Seminole, Broadway and 69th St., New York, N. Y. (57).
- *Nuttall, Mrs. Zelia, Casa Alvarado, Coyoacan, D. F., Mexico. (35). 1887. **H**
- *Nutting, Prof. Charles Cleveland, State University of Iowa, Iowa City, Iowa. (40). 1892. **F**

MEMBERS AND FELLOWS.

- *Nutting, Perley Gilman, National Bureau of Standards, Washington, D. C. (53). 1906. **ABHL**
- Nylander, Olof O., R. F. D. 4, Caribou, Me. (50). **F**
- Nyswander, Reuben Edson, Jr., (55). **B**
- Oakes, F. James, 137 Wilson Ave., Flushing, L. I., N. Y. (49).
- Oakley, Russell A., Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C. (60). **G**
- Obear, George Barrows, Brown University, Providence, R. I. (54). **B**
- *Oberholser, Harry Church, U. S. Department of Agriculture, Washington, D. C. (46). 1898. **EFH**
- O'Brien, John, Jr., M. D., Marting, W. Va. (60). **K**
- O'Brien, Mary Editha, 134 Warren Ave., East, Detroit, Mich. (58).
- O'Brien, Thomas H., E. M., General Manager, Stag Cañon Fuel Co., Dawson, N. M. (60). **D**
- O'Byrne, Leo C., 2545 Washington Boulevard, Chicago, Ill. (56). **CD**
- Ochs, Adolph S., Times Building, Times Square, New York, N. Y. (57).
- O'Connell, Charles J., 2413 Portland Ave., Minneapolis, Minn. (60). **C**
- O'Connell, Rt. Rev. Dennis J., 1000 Fulton St., San Francisco, Cal. (58). **L**
- O'Connor, Haldeman, 13 North Front St., Harrisburg, Pa. (51). **EH**
- Odenbach, Rev. Frederick L., S. J., Director, Meteorological Observatory, St. Ignatius College, Cleveland, Ohio. (54). **BEF**
- O'Donovan, Charles, M. D., 10 East Read St., Baltimore, Md. (58). **K**
- Oestlund, Oscar W., Ph. D., Assistant Professor of Biology, University of Minnesota, Minneapolis, Minn. (50). **F**
- Oettinger, Philip J., Ph. D., 621 Broadway, New York, N. Y. (57). **CD**
- Of, Charles, E. M., South Stafford, Vt. (60). **D**
- O'Gara, P. J., U. S. Department of Agriculture, Medford, Oregon. (61). **G**
- Ogden, Henry Vining, M. D., 141 Wisconsin St., Milwaukee, Wis. (51). **FGK**
- Ogden, Dr. J. Bergen, 1 Madison Ave., New York, N. Y. (60). **C**
- Ogden, Robert Curtis, LL. D., 125 East 56th St., New York, N. Y. (57).
- Ogden, Robert Morris, Ph. D., Professor of Philosophy and Psychology, University of Tennessee, Knoxville, Tenn. (58). **H L**
- Ogden, Rollo, Editor, *New York Evening Post*, New York, N. Y. (57).
- *Ogilvie, Ida Helen, Ph. D., Tutor in Geology, Barnard College, Columbia University, New York, N. Y. (51). 1909. **E**
- Ogle, Oliver L., M. D., 2625 St. Louis Ave., St. Louis, Mo. (60). **K**
- Oglevee, Christopher Stoner, Lincoln College, Lincoln, Ill. (50). **FG**
- *O'Harra, Cleophas Cisney, Professor of Mineralogy and Geology, State School of Mines, Rapid City, S. Dak. (49). 1907. **E**
- Ohern, D. W., Ph. D., Oklahoma Geological Survey, Norman, Okla. (58). **E**
- Ohle, Ernest L., Professor of Mechanical Engineering, Washington University, St. Louis, Mo. (58). **D**

- Ohler, William H., 216 Spring St., Portland, Me. (58). **BCGK**
- *Ohlmacher, Albert Philip, M. D., 350 Pennsylvania Ave., Detroit, Mich. (54). 1906. **K**
- O'Keefe, Mary W., Principal, Throop School, Chicago, Ill. (58). **IL**
- Okerström, Albert, M. D., Sycamore, Ill. (57). **K**
- *Oldberg, Oscar, Professor of Pharmacy and Applied Pharmaceutical Chemistry, Northwestern University Medical School, Chicago, Ill. (54). 1909. **CL**
- *Olds, George Daniel, LL. D., Department of Mathematics, Amherst College, Amherst, Mass. (54). 1907. **A**
- O'Leary, Pearse, M. D., Vicksburg, Miss. (60). **K**
- Oleson, Olaf M., Fort Dodge, Iowa. (53). **G**
- Olin, Stephen H., 34 Nassau St., New York, N. Y. (57).
- *Oliphant, F. H., Geologist of South Pennsylvania Oil Co., Oil City, Pa. (51). 1906. **E**
- *Olive, Edgar William, Ph. D., State College of Agriculture and Mechanic Arts, Brookings, S. Dak. (48). 1903. **G**
- *Oliver, Charles Augustus, M. D., 1507 Locust St. Philadelphia, Pa. (54). 1905. **HKL**
- Olmsted, John Charles, Landscape Architect, 16 Warren St., Brookline, Mass. (50). **EI**
- *Olney, Louis Atwell, Professor of Chemistry, Lowell Textile School, Lowell, Mass. (57). 1908. **C**
- Olsen, O. T., M. D., St. Andrew's Terrace, Grimsby, England. (60). **K**
- Olsen, Tinius, 500 North 12th St., Philadelphia, Pa. (51). **D**
- Olshausen, B. A., 1505 St. Andrews Place, Los Angeles, Cal. (60). **C**
- Olson, David, Professor of Geography, Stevens Point Normal School, Stevens Point, Wis. (58). **E**
- Olson, George A., 1708 Opal St., Pullman, Wash. (60). **C**
- *Olsson-Seffer, Pehr, Ph. D., Consulting Scientist, Tropical Agriculture and Forestry, Apartado 133 Bis, Mexico, D. F., Mexico. (55). 1909. **EG**
- OLYPHANT, ROBERT MORRISON, JR., 16 East 52d St., New York, N. Y. (57).
- O'Malley, Thomas James, M. D., 168 East North Ave., Chicago, Ill. (58). **BCHK**
- *O'Neill, Edmond, Professor of Chemistry, University of California, Berkeley, Cal. (57). 1910. **C**
- Opdyke, William Stryker, 20 Nassau St., New York, N. Y. (49).
- Opie, Eugene Lindsay, M. D., 161 East 79th St., New York, N. Y. (58)
K
- Oppenheimer, Bernard Sutro, M. D., 2345 Broadway, New York, N. Y. (60). **K**
- O'Reilly, Andrew J., E. E., 2207 South Grand Ave., St. Louis, Mo. (60). **D**
- *Orleman, Col. Louis H., Ph. D., 115 Drexel Ave., Atlantic City, N. J. (47). 1900.

MEMBERS AND FELLOWS.

- *Orndorff, William Ridgely, Ph. D., Cornell University, Ithaca, N. Y. (60). 1910. **C**
- Orr, Edward D., M. D., Mt. Hope, Wis. (58). **K**
- Orr, Miss Mary Moore, 102 Remson St., Brooklyn, N. Y. (57). **IL**
- *Orr, William, Jr., 30 Firglade Ave., Springfield, Mass. (39). 1895.
- BCEL**
- Orrok, George A., C. E., 232 East 17th St., Flatbush, N. Y. (60). **D**
- *Ortmann, Arnold Edward, Ph. D., Professor of Physical Geography, School of Mines, University of Pittsburg, Pittsburg, Pa. (51). 1903. **EF**
- *Orton, Edward, Jr., Ohio State University, Columbus, Ohio. (48). 1900. **CE**
- *Orton, William Allen, Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C. (49). 1909. **G**
- OSBORN, CHASE S., Sault Ste Marie, Mich. (60). **E**
- *Osborn, Frederick A., Ph. D., Professor of Physics, University of Washington, Seattle, Wash. (50). 1910. **B**
- *Osborn, Henry Fairfield, LL. D., President, American Museum of Natural History, New York, N. Y. (29). 1883. **EF**
- *Osborn, Henry Leslie, Ph. D., Professor of Zoology, Hamline University, St. Paul, Minn. (52). 1906. **F**
- *Osborn, Herbert, Professor of Zoology and Entomology, Ohio State University, Columbus, Ohio. (32). 1884. **F**
- Osborn, Ralph, De Witt Clinton High School, 59th St. and 10th Ave., New York, N. Y. (60). **FG**
- Osborn, Wm. Church, 71 Broadway, New York, N. Y. (57).
- *Osborne, George Abbott, Professor of Mathematics, Massachusetts Institute of Technology, Boston, Mass. (50). 1903. **A**
- Osborne, Loyall Allen, E. E., Manager, Westinghouse Electric and Manufacturing Co. Works, Pittsburg, Pa. (50). **D**
- *Osborn, Raymond Carroll, Ph. D., Asst. Professor of Zoology, Barnard College, Columbia University, New York, N. Y. (50). 1906. **F**
- Osgood, Alfred Townsend, M. D., 14 East 58th St., New York, N. Y. (57). **K**
- Osgood, Joseph B. F., P. O. Box 212, Salem, Mass. (31).
- Osgood, Paul M., Hotel Woodbridge, W. Somerville, Mass. (60). **C**
- *Osgood, Wilfred Hudson, U. S. Department of Agriculture, Washington, D. C. (52). 1905. **F**
- *Osgood, William Fogg, Ph. D., Professor of Mathematics, Harvard University, Cambridge, Mass. (58). 1909. **A**
- *O'Shea, Prof. Michael Vincent, Secretary, Society of College Teachers of Education, University of Wisconsin, Madison, Wis. (53). 1907.
- HIL**
- Osmun, A. Vincent, Assistant Professor of Botany, Massachusetts Agricultural College, Amherst, Mass. (60). **G**
- Osterhout, George E., New Windsor, Colo. (60). **G**

Osterhout, Winthrop John Vanleuven, Asst. Professor of Botany, Harvard University, Cambridge, Mass. (61). **G**

Ostrup, John Christian, C. E., 203 West 103d St., New York, N. Y. (60).

D

Othmann, Henry I., Lakeside Inn, Lakeside, Cal. (56).

Otis, Herbert Foster, 165 Fisher Ave., Brookline, Mass. (61).

*Ott, Isaac, M. D., Easton, Pa. (54). 1906. **K**

Ottley, Miss Alice M., Instructor in Botany, Wellesley College, Wellesley, Mass. (61). **G**

Overlock, Melvin G., M. D., 91 Chandler St., Worcester, Mass. (60). **K**

*Overton, James Bertram, Ph. D., Assistant Professor of Botany, University of Wisconsin, Madison, Wis. (52). 1906. **G**

*Owen, Charles Lorin, Assistant Curator, Field Museum of Natural History, Chicago, Ill. (50). 1902. **H**

Owen, Ira J., M. E., 1202 Marquette Building, Chicago, Ill. (58). **D**

*OWEN, MISS JULIETTE A., 306 North Ninth St., St. Joseph, Mo. (50). 1906. **F**

Owen, Miss Luella Agnes, 306 North Ninth St., St. Joseph, Mo. (47).

E H

Owen, Miss Mary Alicia, 306 North Ninth St., St. Joseph, Mo. (50). **H**

Owen, Thomas M., Director, Alabama State Department of Archives and History, Montgomery, Ala. (60).

Owens, William Gundy, Professor of Chemistry and Physics, Bucknell University, Lewisburg, Pa. (50). **B C**

Pack, Fred J., Ph. D., Deseret Professor of Geology, University of Utah, Salt Lake City, Utah. (54). **E**

Paddock, Eugene H., 149 West 72d St., New York, N. Y. (57). **E**

*Paddock, Wendell, State Agricultural College, Fort Collins, Colo. (50). 1901. **G**

Paffard, Frederic C., M. D., 238 Clinton St., Brooklyn, N. Y. (60). **K**

Page, Abbott C., Professor of Chemistry, Cedar Falls, Iowa. (58). **C**

Page, Alexander G., Leona Chemical Works, 50th Ave., Oakland, Cal. (60). **C**

PAGE, CLARENCE V., C. E., E. M., P. O. Box 922, Butte, Mont. (51). **D E**

PAGE, DR. DUDLEY L., 94 Merrimack St., Lowell, Mass. (33). **F**

Page, Edward D., 60 Worth St., New York, N. Y. (57). **I**

Page, Herbert M., Manual Training High School, Kansas City, Mo. (60). **A B**

*Page, James Morris, Ph. D., Professor of Mathematics, University of Virginia, Charlottesville, Va. (58). 1909. **A**

Page, Logan Waller, U. S. Dept. of Agriculture, Washington, D. C. (52). **C**

Page, Mrs. Mary B., 54 Scott St., Chicago, Ill. (61). **L**

PAGE, MRS. NELLIE K., 636 Rogers St., Lowell, Mass. (33). **F**

Paine, Clarence S., Secretary, Nebraska State Historical Society, Lincoln, Nebr. (58). **H**

Paine, Mrs. Clinton P., 1115 St. Paul St., Baltimore, Md. (60).

MEMBERS AND FELLOWS.

- *Paine, Cyrus Fay, 242 East Ave., Rochester, N. Y. (12). 1874. **A B**
 Paine, Ellery Burton, Assistant Professor of Electrical Engineering, University of Illinois, Urbana, Ill. (54). **B D**
- *PALACHE, CHARLES, University Museum, Cambridge, Mass. (44). 1896. **E**
- *Palmer, Albert de Forest, Ph. D., Associate Professor of Physics, Brown University, Providence, R. I. (47). 1900. **A B**
- *Palmer, Charles Skeele, Ph. D., 23 Park Place, Newtonville, Mass. (50). 1901. **C L**
- Palmer, Claud Irwin, 4346 Champlain Ave., Chicago, Ill. (60). **L**
- Palmer, Dr. Edward, Division of Plants, U. S. National Museum, Washington, D. C. (22). **G H**
- Palmer, Ezra, M. D., 1 Van Buren Hall, Trinity Court, Boston, Mass. (51). **K**
- Palmer, Harry Mitchell, E. E., 71 Hazelwood Ave., Pittsburg, Pa. (60). **D**
- Palmer, Theodore Sherman, M. D., 1939 Biltmore St. N. W., Washington, D. C. (58). **F**
- Palmer, Thomas Waverly, President, Alabama Girls' Industrial School, Montevallo, Ala. (55). **A**
- Palmer, William Carl, Box 101, Fargo, N. D., (60). **C E**
- Paltsits, Hon. Victor Hugo, State Historian, The Capitol, Albany, N. Y. (51). **H I**
- *Pammel, Louis Hermann, Ph. D., Professor of Botany, Iowa State College, Ames, Iowa. (39). 1892. **G**
- Parham, Frederick William, M. D., 1420 Seventh St., New Orleans, La. (55). **K**
- PARISH, HENRY, 52 Wall St., New York, N. Y. (49).
- Park, Charles F., Massachusetts Institute of Technology, Boston, Mass. (60).
- *Park, Roswell, M. D., 510 Delaware Ave., Buffalo, N. Y. (45). 1901. **H K**
- *Park, William Hallock, M. D., 315 West 76th St., New York, N. Y. (51). 1903. **K**
- Parker, Delos L., M. D., 559 Jefferson Ave., Detroit, Mich. (60). **K**
- *Parker, George Howard, Professor of Zoology, Harvard University, Cambridge, Mass. (50). 1901. **F K**
- *PARKER, HERSCHEL CLIFFORD, Adjunct Professor of Physics, Columbia University, New York, N. Y. (43). 1900. **B**
- Parker, Matthew A., Professor of Chemistry, University of Manitoba, Winnipeg, Canada. (58). **C**
- Parker, William Lincoln, 312 Dartmouth St., Boston, Mass. (50).
- Parkhurst, Frederic A., M. E., City Hotel, Bridgeton, N. J. (60). **D**
- *Parkhurst, John Adelbert, Instructor in Practical Astronomy, Yerkes Observatory, Williams Bay, Wis. (58). 1910. **A**
- Parkins, Almon Ernest, 105 Normal St., Ypsilanti, Mich. (60). **E**

- *Parks, Charles Wellman, Civil Engineer, U. S. N., U. S. Navy Yard, Bremerton, Wash. (50). 1897. **B D E**
- Parmelee, Horatio P., 100 Monroe St., Grand Rapids, Mich. (42). **E H**
- Parmelee, Linus S., 933 Grand Traverse St., Flint, Mich. (58). **B C**
- Parmenter, George Freeman, Ph. D., Professor of Chemistry, Colby College, Waterville, Me. (58). **C**
- Paroutand, A., 37 Murray St., New York, N. Y. (57).
- *Parr, Samuel Wilson, Professor of Applied Chemistry, University of Illinois, Urbana, Ill. (55). 1908. **C**
- Parrott, P. J., Geneva, N. Y. (60). **F**
- Parsons, Arthur L., University of Toronto, Toronto, Canada. (53). **E**
- *Parsons, Charles Lathrop, Professor of Chemistry, New Hampshire College, Durham, N. H. (41). 1896. **C**
- Parsons, Chas. W., 30 West 94th St., New York, N. Y. (57).
- Parsons, Charles W. D., 1009 Grove St., Evanston, Ill. (60). **B**
- Parsons, Hon. Herbert, House of Representatives, Washington, D. C. (57).
- PARSONS, JOHN E., 111 Broadway, New York, N. Y. (36).
- Parsons, William Claude, M. E., 2433 Woodstock Ave., Braddock, Pa. (58). **D**
- Partridge, Edward A., Ph. D., Head of Department of Science, Central Manual Training School, Philadelphia, Pa. (58). **A B**
- Pascal, Henry S., M. D., 1672 Broadway, New York, N. Y. (60). **K**
- Pastorius, Charles Sharpless, 415 North Cascade Ave., Colorado Springs, Colo. (51).
- Patch, Miss Edith M., Entomologist, Maine Agricultural Experiment Station, Orono, Me. (58). **F**
- Patera, Frank J., M. D., 1647 Clifton Park Ave., Chicago, Ill. (60). **K**
- Patitz, J. F. Max, M. E., 473 38th St., Milwaukee, Wis. (60). **D**
- *Paton, Stewart, M. D., Princeton, N. J. (50). 1902. **F K**
- Paton, Wm. Agnew, Lakewood, N. J. (57).
- Patrick, Edw. T., Drawer C, Goldfield, Nevada. (54). **G I**
- Patrick, Frank, 603 Dwight Building, Kansas City, Mo. (50). **F G**
- Patten, Frank Chauncy, Librarian, Rosenberg Library, Galveston, Tex. (53). **I**
- Patten, Miss Jane Boit, South Natick, Mass. (55). **G**
- PATTEN, JOHN, President, Patten Vacuum Ice Machine Co., 40 South Front St., Baltimore, Md. (43).
- Patten, Miss Juliet Craik, 2212 R St. N. W., Washington, D. C. (49). **G**
- *Patten, William, Ph. D., Professor of Biology, Dartmouth College, Hanover, N. H. (58). 1910. **F**
- *Patterson, Andrew Henry, Professor of Physics, University of N. C., Chapel Hill, N. C. (51). 1906. **B**
- *Patterson, Austin M., Ph. D., Xenia, Ohio. (51). 1906. **C**
- Patterson, Charles Waggener, 3640 Cottage Grove Ave., Chicago, Ill. (58). **C**
- *Patterson, Mrs. Flora Wambaugh, U. S. Department of Agriculture Washington, D. C. (44). 1909. **G**

MEMBERS AND FELLOWS.

- *Patterson, George Washington, Ph. D., care Brown, Shipley & Co., 123
Pall Mall, London, England. (44). 1896. **A B D**
- Patterson, Guillermo, Jr., 518 West 145th St., New York, N. Y. (58).
C D K
- *Patterson, Harry Joseph, College Park, Md. (36). 1890. **C**
- *Patterson, Prof. James Lawson, Chestnut Hill, Philadelphia, Pa. (45).
1906. **A D**
- Patterson, John C., M. D., 177 Union Ave., Batavia, Ill. (60). **K**
- Patterson, John Thomas, Ph. D., Instructor in Zoology, University of
Texas, Austin, Texas. (61). **F**
- Patterson, Stewart,.....(58).
- Patterson, Thomas Leon, care Gypsy Moth Parasite Laboratory, Melrose
Highlands, Mass. (61). **F**
- Patthey, Henry L., 2622 Clinton Ave., Minneapolis, Minn. (56).
- Pattillo, Nathan Allen, Randolph-Macon Woman's College, College Park,
Va. (60). **A**
- Pattison, Chas. E., Fuller Building, 23d St. and Broadway, New York,
N. Y. (57). **D**
- Pattison, Frank A., Consulting Electrical Engineer, Fuller Building,
23d St. and Broadway, New York, N. Y. (50). **D**
- *Patton, Horace Bushnell, Ph. D., Professor of Geology and Mineralogy,
Colorado School of Mines, Golden, Colo. (37). 1901. **E**
- Patton, Leicester, Charlottesville, Va. (60). **C**
- *Paul, Henry Martyn, Professor of Mathematics, U. S. N., U. S. Naval
Academy, Annapolis, Md. (33). 1885. **A B**
- Paull, Leslie Fairbanks, Associate Professor of Horticulture, Colorado
Agricultural College, Fort Collins, Colo. (54). **G**
- Paulson, Thomas Christian, Louisiana Experiment Station, Baton Rouge,
La. (61). **K**
- *Payne, Bruce Ryburn, Ph. D., Professor of Education, University of
Virginia, Charlottesville, Va. (55). 1907. **I**
- Payne, Henry Man, Ph. D., Professor of Mining Engineering, West
Virginia University, Morgantown, W. Va. (58). **D E**
- *Peabody, Charles, Ph. D., Instructor in Anthropology, Harvard Uni-
versity, Cambridge, Mass. (58). 1908. **H**
- Peabody, Eunice D., 272 Prescott St., St. Paul, Minn. (58). **F H**
- Peabody, George Foster, 2 Rector St., New York, N. Y. (50).
- Peabody, Geo. Livingston, M. D., 57 West 38th St., New York, N. Y.
(57). **K**
- Peabody, James E., Scarsdale, N. Y. (61).
- Peabody, Mary Brown, All Saints School, Sioux Falls, S. Dak. (52). **F G**
- *Pearce, Edward D., P. O. Box 977, Providence, R. I. (57). 1908. **C**
- Pearce, James Edwin, Principal, Austin High School, Austin, Tex. (51).
H
- Pearce, Richard Mills, Jr., M. D., Professor of Experimental Medicine,
University of Pennsylvania, Philadelphia, Pa. (56). **K**

- *Pearl, Raymond, Ph. D., Agricultural Experiment Station, Orono, Me. (53). 1905. **F**
- *Pearse, A. S., Instructor in Zoology, University of Michigan, Ann Arbor, Mich. (54). 1910. **F**
- Pearson, Fred. Stark, Consulting Engineer, 25 Broad St., New York, N. Y. (50). **D**
- Pearson, Gustaf Adolph, U. S. Forest Service, Flagstaff, Ariz. (60). **G**
- Pearson, Guy H., 58 Morris St., Yonkers, N. Y. (60). **C**
- Pearson, Henry Carr, Principal, Horace Mann School, 501 West 120th St., New York, N. Y. (58). **L**
- Pearson, Preston W., M. D., Emory, Tex. (60). **K**
- *Pearson, Raymond Allen, Commissioner of Agriculture, Albany, N. Y. (49). 1901. **I**
- Pease, Miss Clara A., Public High School, Hartford, Conn. (47). **E**
- Pease, Frederic N., P. O. Box 503, Altoona, Pa. (58). **C**
- Peattie, Mrs. Elia Wilkinson, 7660 Bond Ave., Chicago, Ill. (58). **H**
- Peck, Charles E., 2 East 45th St., New York, N. Y. (57).
- *Peck, Charles Horton, State Botanist, Geological Hall, Albany, N. Y. (52). 1906. **G**
- *Peck, Frederick Burritt, Ph. D., Professor of Mineralogy and Geology, Lafayette College, Easton, Pa. (49). 1907. **E**
- Peck, Mrs. John Hudson, 3 Irving Place, Troy, N. Y. (28). **H I K**
- Peck, John Sedgwick, E. E., 4 Groby Place, Altrincham, England. (60). **D**
- Peck, Samuel S., Hawaiian Sugar Planters' Experiment Station, Honolulu, Hawaii. (58). **C**
- Peck, William Adorno, C. E., 1643 Champa St., Denver, Colo. (19). **D**
- *Peckham, Wm. Clark, Professor of Physics, Adelphi College, Brooklyn, N. Y. (54). 1906. **A B**
- Pedersen, James, M. D., 20 East 46th St., New York, N. Y. (57). **K**
- Pedersen, Victor C., M. D., 45 West 9th St., New York, N. Y. (60). **K**
- *Peed, Mansfield T., Professor of Mathematics and Astronomy, Emory College, Oxford, Ga. (53). 1909. **A**
- Peek, William A., M. D., 1403 Lewis St., Helena, Mont. (60). **K**
- Peet, Charles Emerson, Lewis Institute, Chicago, Ill. (58).
- Peet, Rev. Stephen Denison, Ph. D., Salem, Mass. (58). **H**
- *Pegram, George Braxton, Ph. D., Tutor in Physics, Columbia University, New York, N. Y. (52). 1905. **B**
- *Pierce, Benjamin Osgood, Ph. D., Professor of Mathematics and Natural Philosophy, Harvard College, Cambridge, Mass. (47). 1898. **A B**
- *Pierce, George James, Ph. D., Professor of Botany, Stanford University, Cal. (44). 1897. **G**
- Peirce, Harold, 222 Drexel Building, Philadelphia, Pa. (33). **H I**
- Peirson, Charles L., 191 Commonwealth Ave., Boston, Mass. (60).
- Pelo, William J., Assistant, Division of Education, Harvard University, Cambridge, Mass. (60). **L**

MEMBERS AND FELLOWS.

- Pember, Frederick R., Assistant Plant Physiologist, Rhode Island Agricultural Experiment Station, Kingston, R. I. (58). **G**
- *Pemberton, Henry, 1947 Locust St., Philadelphia, Pa. (54). 1906.
- Pemberton, Ralph, M. D., 1947 Locust St., Philadelphia, Pa. (60). **K**
- Pendleton, Ellen F., Wellesley College, Wellesley, Mass. (60). **A**
- Pendleton, F. K., 7 East 86th St., New York, N. Y. (57).
- Pendleton, Frank E., M. E., 140 Cedar St., New York, N. Y. (60). **D**
- Pendleton, Joseph S., E. M., 144 North 5th St., Reading, Pa. (60). **D**
- *Penhallow, David Pearce, Professor of Botany, McGill University, Montreal, Canada. (54). 1907. **E G**
- Pennell, William W., M. D., 205 North Main St., Mt. Vernon, Ohio. (51). **K**
- Penney, Rupert L., M. E., 80 Willard St., Westville Station, New Haven, Conn. (58). **D**
- *Pennington, Mary Engle, Ph. D., 405 Lancaster Ave., St. Davids, Pa. (47). 1900. **C F G K**
- Pennock, Edward, 3609 Wooland Ave., Philadelphia, Pa. (58). **B G**
- Penny, Charles L., Newark, Del. (60). **C**
- Pennypacker, James Lane, 614 Arch St., Philadelphia, Pa. (54).
- Penrose, Charles B., M. D., Ph. D., 1720 Spruce St., Philadelphia, Pa. (51). **B E F K**
- Penrose, Clement A., M. D., 21 West Mt. Royal Ave., Baltimore, Md. (60). **K**
- *PENROSE, RICHARD ALEXANDER FULLERTON, JR., Ph. D., 460 Bullitt Building, Philadelphia, Pa. (38). 1890. **E**
- PENTECOST, CAPT. E. H., Barrack Tor, Topsfield, Mass. (60).
- PENTECOST, MRS. CAPT. E. H., Barrack Tor, Topsfield, Mass. (60).
- *Pepper, George Hubbard, University of Pennsylvania Museum, Philadelphia, Pa. (48). 1900. **H**
- Pergande, Theodore, U. S. Department of Agriculture, Washington, D. C. (58). **F**
- Perisho, Ellwood Chappell, Professor of Geology, University of South Dakota, Vermilion, S. D. (61). **E**
- PERKINS, ARTHUR, 14 State St., Hartford, Conn. (31). **A B**
- *Perkins, Charles Albert, Ph. D., Professor of Electrical Engineering, University of Tennessee, Knoxville, Tenn. (47). 1900. **B D L**
- Perkins, Edmund Taylor, U. S. Reclamation Service, 777 Federal Building, Chicago, Ill. (52). **E**
- Perkins, Frank Walley, Assistant Superintendent, U. S. Coast and Geodetic Survey, Washington, D. C. (52). **B**
- *Perkins, George Henry, Ph. D., Professor of Geology, University of Vermont, Burlington, Vt. (17). 1882. **E H**
- Perkins, Henry Cleveland, E. M., 1701 Connecticut Ave., Washington, D. C. (60). **D**
- *Perkins, Henry Farnham, Ph. D., Assistant Professor of Zoology, University of Vermont, Burlington, Vt. (52). 1909. **F**

MEMBERS AND FELLOWS.

- Perkins, Jacob Henry, 14 Victoria Square, Clifton, Bristol, England. (60). **I**
- Perkins, R. C. L., Hawaii Sugar Planters' Experiment Station, Honolulu, Hawaii. (58). **F**
- PERKINS, WM. H., Park Avenue Hotel, New York, N. Y. (57).
- *PERRINE, CHARLES DILLON, Astronomer, Observatorio Nacional, Cordoba, Argentine Republic, S. A. (51). 1903. **A**
- Perrine, Miss Lura L., 609 Normal Ave., Valley City, N. Dak. (47).
E F G H
- Perron, Mosby Garland, Ph. D., Lynchburg, Va. (58). **C G L**
- *Perry, Arthur C., 226 Halsey St., Brooklyn, N. Y. (43). 1896. **A B**
- Perry, Chas. J., Perry's Pharmacy, New York, N. Y. (57). **A B C G I K L**
- Perry, Chas. M., Greene, R. I. (57). **C**
- Perry, Thomas Sergeant, 312 Marlborough St., Boston, Mass. (50). **I**
- Pershing, Howell T., M. D., 1169 Race St., Denver, Colo. (54). **K**
- Peskind, Arnold, M. D., 2414 East 55th St., Cleveland, Ohio. (51). **K**
- Petravel, J. E., The University, Manchester, England. (61).
- Peter, Alfred Meridith, Chemist, Kentucky Agricultural Experiment Station, 268 East Maxwell St., Lexington, Ky. (57). **C**
- *Peters, Amos William, Ph. D., 66 Francis St., Boston, Mass. (53). 1908. **F K**
- Peters, Prof. Clayton Ames, Polytechnic Institute, Brooklyn, N. Y. (46). **B G**
- Peters, Edward Dyer, E. M., 38 Percival St., Dorchester, Mass. (60). **D**
- *Peters, Edw. T., P. O. Box 2482, Washington, D. C. (33). 1889. **I**
- Peters, Fredus N., 5423 Cleveland St., Kansas City, Mo. (58). **A**
- Peters, George H., U. S. Naval Observatory, Washington, D. C. (60). **B**
- *Peters, Wm. J., 405, The Ontario, Washington, D. C. (57). 1909. **B**
- Petersen, Neils Frederick, Louisiana State University, Baton Rouge, La. (50). **G**
- *Peterson, Frederick, M. D., 4 West 50th St., New York, N. Y. (49). 1901. **F K**
- Peterson, Joseph, Ph. D., Professor of Psychology, Brigham Young University, Provo, Utah, (58). **H**
- Peterson, Olaf August, Carnegie Museum, Pittsburg, Pa. (55). **F**
- Peterson, William A., Superintendent, U. S. Agricultural Experiment Station, Yuma, Ariz. (60). **G**
- Pétre, Axel Emile, P. O. Box 1606, Philadelphia, Pa. (48). **D**
- *Petrunkevitch, Alexander, Ph. D., 54 Walnut St., Montclair, N. J. (54). 1906. **F**
- *Pettee, Charles Holmes, Dean and Professor of Mathematics, New Hampshire College, Durham, N. H. (47). 1908. **A**
- Pettee, Charles L. W., care Hartford Laboratory Co., Hartford, Conn. (58). **C**
- *Pettegrew, David Lyman, P. O. Box 75, Worcester, Mass. (44). 1906. **A L**
- Petterson, Christian A., 3922 Lowell Ave., Chicago, Ill. (52). **A L**

MEMBERS AND FELLOWS.

- Pettis, Clifford R., care Forest, Fish and Game Commission, Albany, N. Y. (61). **G**
- Pettit, R. H., Michigan Agricultural College, East Lansing, Mich. (56). **F**
- Petty, Orlando H., M. D., 6215 Ridge Ave., Roxboro, Philadelphia, Pa. (60). **K**
- Pfeiffer, Wanda May, Ph. D., University of Chicago, Chicago, Ill. (60). **G**
- Pfister, Joseph Clement, Professor of Physics, Columbia University, New York, N. Y. (58). **A B D**
- Pfordte, Otto F., E. M., 15 Donaldson Ave., Rutherford, N. J. (57). **E**
- Pharr, Henry Newton, Olivier, Louisiana. (55). **D**
- Phelps, Earle B., 786 Albany St., Boston, Mass. (60). **C**
- Phelps, Isaac King, Bureau of Chemistry, U. S. Department of Agriculture, Washington, D. C. (60). **C**
- Phillip, Robert Ashby, E. E., 147 Milk St., Boston, Mass. (60). **D**
- Phillips, Alexander Hamilton, 54 Hodge Road, Princeton, N. J. (58). **F**
- *Phillips, Andrew Wheeler, Ph. D., Professor of Mathematics, Yale University, New Haven, Conn. (24). 1879. **A**
- *Phillips, Everett Franklin, Ph. D., Bureau of Entomology, U. S. Department of Agriculture, Washington, D. C. (58). 1910. **F**
- *PHILLIPS, PROF. FRANCIS C., Box 126, Allegheny, Pa. (36). 1889. **C**
- Phillips, Frank J., Professor of Forestry, University of Nebraska, Lincoln, Nebr. (60). **G**
- PHILLIPS, JOHN C., M. D., 299 Berkeley St., Boston, Mass. (52). **F K**
- *Phillips, John Lloyd, State Entomologist, Blacksburg, Va. (52). 1906. **F**
- Phillips, Martha R., North Beverly, Mass. (60).
- Phillips, W. J., Bureau of Entomology, U. S. Department of Agriculture, Washington, D. C. (60). **F**
- Phipps, Henry, 1063 Fifth Ave., New York, N. Y. (57).
- PHIPPS, LAWRENCE COWLE, C. E., 1154 Colfax Ave., Denver, Colo (51). **D**
- Pickel, Frank Welborn, Professor of Biology, University of Arkansas, Fayetteville, Ark. (51). **F G**
- *Pickering, Edward Charles, Ph. D., Director, Astronomical Observatory Harvard College, Cambridge, Mass. (18). 1875. **A B**
- Pickering, Oscar W., 20 Lenox St., Springfield, Mass. (60). **C**
- Pickett, Thomas E., M. D., Maysville, Ky. (25). **H**
- Pickett, William Douglas, 228 Campsie St., Lexington, Ky. (41). **D I**
- Pickman, Dudley L., 98 Beacon St., Boston, Mass. (60).
- Pierce, Alfred Lawrence, E. E., 65 South Elm St., Wallingford, Conn. (58). **D**
- Pierce, Arthur Burton, Ph. D., Asst. Professor of Mathematics, University of Michigan, Ann Arbor, Mich. (60). **A**
- Pierce, Arthur Henry, Ph. D., Professor of Psychology, Smith College, Northampton, Mass. (60). **H**
- Pierce, Miss Bessie Gillespie, 512 West 11th St., Wilmington, Del. (54). **C**

- Pierce, Charles Henry, Assistant Professor of Mathematics, University of Vermont, Burlington, Vt. (60). **AD**
- *PIERCE, NEWTON BARRIS, Pacific Coast Laboratory, U. S. Department of Agriculture, Santa Ana, Cal. (49). 1901. **G**
- Pierce, Norval H., M. D., 31 Washington St., Chicago, Ill. (58). **K**
- Pierce, Sloan J., R. F. D. No. 4, Warren, Ohio. (50). **E**
- Pierce, W. Dwight, Box 208, Dallas, Tex. (58). **F**
- *Pierpont, Prof. James, 42 Mansfield St., New Haven, Conn. (58). 1909.
ABCDEFGHIK
- PIERREPONT, HENRY E., 216 Columbia Heights, Brooklyn, N. Y. (43).
- Pierrepont, John Jay, 1 Pierrepont Place, Brooklyn, N. Y. (57). **A**
- *Piersol, George Arthur, M. D., Professor of Anatomy, University of Pennsylvania, Philadelphia, Pa. (50). 1902. **FK**
- *Pieters, A. J., President, A. J. Pieters Seed Co., Hollister, Cal. (58). 1909. **G**
- Pietrzycki, Marcel, M. D., Dayton, Wash. (51). **EIKL**
- *Pike, Frank Henry, Assistant in Physiology, University of Chicago Chicago, Ill. (57). 1910. **FK**
- Pikler, Armin Henry, care Crocker-Wheeler Co., Ampere, N. J. (57).
BCD
- Pilling, John W., 1301 Massachusetts Ave. N. W., Washington, D. C. (40).
- *Pillsbury, John Elliot, Rear Admiral, U. S. N., 1755 Q St. N. W., Washington, D. C. (33). 1898. **BDE**
- *Pillsbury, John Henry, Principal, Waban School, Waban, Mass. (23). 1885. **FH**
- *Pinchot, Gifford, I.L. D., 1615 R. I. Ave., Washington, D. C. (47). 1899. **G**
- Pinkerton, Andrew, E. E., Box 427, Pittsburg, Pa. (50). **D**
- Pinkerton, Thomas C., care Baugh & Son, Morris St. Wharf, Philadelphia, Pa. (60). **C**
- Pinkus, Fredk. S., 70 East 56th St., New York, N. Y. (57).
- Pinney, Mrs. Augusta Robinson, 178 Main St., Orange, N. J. (44). **FG**
- *Piper, Charles V., U. S. Department of Agriculture, Washington, D. C. (53). 1905. **FG**
- Pirtle, George W., M. D., Carlisle, Ind. (60). **K**
- Pitkin, W. B., 836 West End Ave., Manhattan, N. Y. (58). **L**
- *Pittier, H., Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C. (58). 1910. **EGH**
- Pitts, Thomas Dorsey, 2432 West Charles St., Baltimore, Md. (51). **D**
- Planten, John R., Consul General of the Netherlands, 116 Broad St., New York, N. Y. (57).
- Plapp, Frederick Wm., 4140 North 42d Ave., Irving Park Station, Chicago, Ill. (52). **EFG L**
- Platt, Charles, M. D., Ph. D., 3612 Baring St., Philadelphia, Pa. (58).
CK
- Platt, Harold Birdsall, Thayer 51, Cambridge, Mass. (60).

MEMBERS AND FELLOWS.

- Plaut, Albert, 28 East 76th St., New York, N. Y. (50).
- Pleasants, J. Hall, M. D., 16 West Chase St., Baltimore, Md. (60). **K**
- *Plimpton, George Arthur, 70 Fifth Ave., New York, N. Y. (47). 1907.
- A**
- Plowman, Amon Benton, Ph. D., Carroll College, Waukesha, Wis. (50).
- B**
- Plummer, George William, Harrison Laboratory, University of Pennsylvania, Philadelphia, Pa. (60). **C**
- Plunkett, Charles Timothy, Cotton Manufacturer, Adams, Mass. (60). **D**
- Poats, T. G., Clemson Agricultural College, Clemson College, S. C. (50).
- B**
- Podlesak, Henry Joseph, E. E., 1548 Ridgeway Ave., Chicago, Ill. (60).
- D**
- Poetschke, Paul, 26 Spruce St., Corona, N. Y. (60). **C**
- Pogue, Mary E., M. D., Lake Geneva, Wis. (58). **K**
- Pohlman, Augustus Grote, M. D., 411 South Fess Ave., Bloomington, Ind. (58). **F**
- *Pohlman, Julius, M. D., 404 Franklin St., Buffalo, N. Y. (32). 1884.
- E F**
- Pole, Arminius C., M. D., 2038 Madison Ave., Baltimore, Md. (51). **H K**
- Polk, Wm. Mecklenberg, M. D., 7 East 36th St., New York, N. Y. (57).
- Pollak, Francis D., 427 West 144th St., New York, N. Y. (57).
- *Pollard, Charles Louis, Curator, Staten Island Association of Arts and Sciences, New Brighton, N. Y. (44). **F G**
- Pollitzer, Sigmund, M. D., 51 East 60th St., New York, N. Y. (55). **K**
- *Pollock, James Barkley, Assistant Professor of Botany, University of Michigan, Ann Arbor, Mich. (58). 1909. **G**
- Pomainville, Frank, M. D., Grand Rapids, Wis. (60). **K**
- Pomeroy, Charles Taylor, Ph. D., 55 Broad St., Newark, N. J. (43). **C**
- Pomeroy, E. H., M. D., Black Mountain, Va. (58). **K**
- *Pond, Francis J., Stevens Institute of Technology, Hoboken, N. J. (54). 1906. **C**
- *Pond, George Gilbert, Ph. D., Professor of Chemistry, Pennsylvania State College, State College, Pa. (51). 1903. **C**
- *Pond, Raymond Haines, Ph. D., 2573 Decatur Ave., New York, N. Y. (52). 1905. **G**
- Pool, Raymond John, Assistant Professor of Botany, University of Nebraska, Lincoln, Nebr. (57). **G**
- *Poor, Charles Lane, Ph. D., Professor of Celestial Mechanics, Columbia University, New York, N. Y. (55). 1907. **A B**
- *Poor, John Merrill, Professor of Astronomy, Dartmouth College, Hanover, N. H. (52). 1906. **A**
- Pope, Curran, M. D., 115 West Chestnut St., Louisville, Ky. (60). **K**
- Pope, Willis T., Superintendent of Public Instruction, Honolulu, Hawaii. (58). **G**
- Porter, H. Hobart, E. E., M. E., 52 William St., New York, N. Y. (50).
- D**

- Porter, Henry Kirke, 1600 I St., Washington, D. C. (50). **D**
- Porter, Henry L., M. D., Seneca, Mo. (60). **K**
- Porter, James Edward, Manufacturing Chemist and Analyst, 205 West Genesee St., Syracuse, N. Y. (50). **C**
- Porter, James F., Hubbard Woods, Ill. (58).
- Porter, James P., Ph. D., Assistant Professor of Psychology, Clark University, Worcester, Mass. (60). **F H L**
- Porter, Joseph Y., M. D., State Health Officer, Jacksonville, Fla. (60). **K**
- *Porter, Royal A., Associate Professor of Physics, Syracuse University, Syracuse, N. Y. (54). 1906. **B D**
- Porter, Thomas L., Clark University, Worcester, Mass. (58). **B**
- Porter, William Henry, M. D., The Strathmore, Broadway and 52d St., New York, N. Y. (57). **C F K**
- *Porter, William Townsend, M. D., Professor of Comparative Physiology, Harvard Medical School, Boston, Mass. (50). 1901. **F K**
- Posada, Dr. Juan de la Cruz, E. M., Medellin, Antioquia, Colombia, S. A. (60). **D**
- Posse, Baroness Rose, Posse Gymnasium, 206 Massachusetts Ave., Boston, Mass. (52).
- *Post, Charles Alfred, Astronomer, Bayport, Long Island, N. Y. (49). 1901. **A**
- Post, J. E. Howard, 209 West Monument St., Baltimore, Md. (60).
- Post, Martin Hayward, M. D., 5371 Waterman Ave., St. Louis, Mo. (60). **K**
- Poteat, Wm. Louis, President, Wake Forest College, Wake Forest, N. C. (47). **F G**
- Pott, John N., E. M., 423 North Sheridan Ave., Tacoma, Wash. (60). **D**
- Potter, Adelbert O., 613 15th St. N. W. Washington, D. C. (56). **F**
- POTTER, MISS BLANCH, 33 East 38th St., New York, N. Y. (57).
- Potter, Mary Goddard, M. D., 39 West 60th St., New York, N. Y. (60). **K**
- Potter, Nathan S., Jr., 515 South Second St., Independence, Kans. (60). **C**
- *Potter, William Bancroft, Chief Engineer, Railway Department, Gen. Elec. Co., Schenectady, N. Y. (50). 1906. **D**
- *Potts, Louis Maxwell, Ph. D., care The Rowland Telegraphic Co., 107 East Lombard St., Baltimore, Md. (54). 1906. **B D**
- *Pound, Roscoe, Ph. D., Professor of Law, University of Chicago, Chicago, Ill. (54). 1906.
- Powel, Colonel de Veaux, 29 Broadway, New York, N. Y. (50). **D E**
- Powel, Samuel W., C. E., 679 Auburn Ave., Buffalo, N. Y. (60). **A B C**
- Powell, Frederick James, 331 East 17th St., New York, N. Y. (54). **A B D**
- Powell, Phillips Bayard, Sorrento, Fla. (58). **F**
- Powell, S. L., Roanoke College, Salem, Va. (61). **E**
- Powell, Thomas, M. D., Columbia Trust Co. Building, Los Angeles, Cal. (41). **K**

MEMBERS AND FELLOWS

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D

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*Power, Frederick Belding, Ph. D., Director, The Wellcome Research Laboratories, 6 King St., Snow Hill, London, E. C., England. (31). 1887. **C**

Powers, E. O., M. D., Masonic Temple, Baton Rouge, La. (60). **K**

Powers, Grover F., 1701 No. Caroline St., Baltimore, Md. (60). **F**

Powers, Hale, M. D., 68 Davis Ave., Brookline, Mass. (60). **K**

*Powers, Le Grand, 3355 18th St., Washington, D. C. (51). 1902. **IL**

Praeger, William Emilius, 421 Douglas Ave., Kalamazoo, Mich. (53).

FG

Prasad, Hari, 97 Roseneath Road, Urmston, near Manchester, England. (60). **C**

Prather, John McClellan, Ph. D., Instructor in Biology, St. Louis High School, St. Louis, Mo. (52). **F**

Pratt, Alexander, Jr., Ph. D., 26 Bunnell St., Bridgeport, Conn. (50).

HI

Pratt, Earl M., M. D., P. O. Box 277, Girard, Pa. (60). **K**

Pratt, Frederick Haven, M. D., Dover, Mass. (56). **FKL**

Pratt, George O., M. D., 720 Antoine St., Detroit, Mich. (60). **K**

*Pratt, Henry Sherring, Ph. D., Professor of Biology, Haverford College, Haverford, Pa. (57). 1909. **F**

Pratt, John Francis, Commanding U. S. S. Pathfinder, Manila, P. I. (54). **A**

*Pratt, Joseph Hyde, Ph. D., North Carolina Geological Survey, Chapel Hill, N. C. (49). 1902. **CE**

Pray, Prof. James Sturgis, 50 Garden St., Cambridge, Mass. (61).

Preece, Sir William, E. E., 8 Queen Anne's Gate, London, England. (60). **D**

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Prentice, W. P., 9 West 16th St., New York, N. Y. (58). **C**

Prentiss, Daniel Webster, M. D., 1315 M St., N. W. Washington, D. C. (50). **FK**

Prentiss, Miss Henrietta, 11½ West 84th St., New York, N. Y. (57). **FG**

*Prentiss, Robert Woodworth, Professor of Mathematics and Astronomy, Rutgers College, New Brunswick, N. J. (40). 1891. **A**

*Prescott, Samuel Cate, Professor of Biology, Massachusetts Institute of Technology, Boston, Mass. (51). 1906. **CFK**

Price, A. F., M. D., Medical Director, U. S. N., 2233 Q St., Washington, D. C. (60). **K**

Price, Harvey Lee, Adjunct Professor of Horticulture, Agricultural Experiment Station, Blacksburg, Va. (52). **G**

Price, J. Meday, 676 7th St., Buffalo, N. Y. (58). **CD**

Price, Marshall Langton, M. D., 10 South St., Baltimore, Md. (60). **K**

- Price, Robert C., Miller School, Va. (58). **C**
- Price, Robert Henderson, Willow View Farm, Long's Shop, Va. (50). **G**
- Price, Thomas Malcolm, U. S. Department of Agriculture, Washington, D. C. (50). **C**
- Price, Weston A., 10406 Euclid Ave., Cleveland, Ohio. (48). **B C**
- Price, William Gunn, C. E., 260 Reis St., New Castle, Pa. (58). **D**
- Price, William J., Jr., Virginia Polytechnic Institute, Blacksburg, Va. (60). **F**
- Prichard, Margaret S., Philadelphia Normal School, 13th and Spring Garden Sts., Philadelphia, Pa. (60). **H**
- Priest, Henry, Ph. D., Dean, College of Letters and Sciences, St. Lawrence University, Canton, N. Y. (53). **I**
- Prince, John Dyneley, Ph. D., 15 Lexington Ave., New York, N. Y. (49).
- *Prindle, Louis Marcus, U. S. Geological Survey, Washington, D. C. (55). 1908. **E**
- Prinz, Hermann, M. D., 603 Century Building, St. Louis, Mo. (60). **K**
- Pritchard, Fred J., 530 East State St., Ithaca, N. Y. (56). **G**
- Pritchard, Myron Thomas, 125 School St., Roxbury, Mass. (52). **E I**
- Pritchard, William Broadus, M. D., 143 West 72d St., New York, N. Y. (51). **H K**
- Pritchard, William P., M. D., 923 2d St., Fall River, Mass. (60). **K**
- *Pritchett, Henry S., Carnegie Foundation, 576 5th Ave., New York, N. Y. (29). 1881. **A**
- *Proctor, Chas. Albert, Hanover, N. H. (53). 1906. **A B C**
- *Proctor, Miss Mary, 159 West 46th St., New York, N. Y. (43). 1898. **A**
- Proffitt, Max J., Gunnison, Colo. (55). **F**
- *Prosser, Charles Smith, Ph. D., Professor of Geology, Ohio State University, Columbus, Ohio. (33). 1891. **E**
- Proudfit, Alexander Couper, 105 East 22d St., New York, N. Y. (47). **I**
- Prouty, William Frederick Ph. D., Assistant State Geologist, Assistant Professor of Geology, University of Alabama, University, Ala. (56). **E**
- Provine, John William, Ph. D., Professor of Chemistry, Mississippi College, Clinton, Miss. (54). **C**
- Pryer, Charles, P. O. Box 647, New Rochelle, N. Y. (49).
- Pryor, Joseph William, M. D., 261 North Broadway, Lexington, Ky. (60). **K**
- Puckner, William A., 535 Dearborn Ave., Chicago, Ill. (58). **C L**
- Puga, Guillermo B., C. E., Avenue 13, No. 2303, Los Pinos, Zacubaya, Mexico, D. F., Mex. (58). **D**
- Pullen, Myrick Whiting, E. E., Instructor in Physics and Electrical Engineering, Iowa State College, Ames, Iowa. (60). **D**
- Pulsifer, H. B., 817 Oak St., Kansas City, Mo. (58). **C E**
- Pulskamp, Bernard, M. D., Rome, Ind. (60). **K**
- *PUPIN, MICHAEL I., Ph. D., Professor of Electro-Mechanics, Columbia University, New York, N. Y. (44). 1896. **B**

MEMBERS AND FELLOWS.

- *Purdue, Albert Homer, Professor of Geology, University of Arkansas, Fayetteville, Ark. (50). 1906. **E**
- *Puryear, Charles, Professor of Mathematics, Agricultural and Mechanical College of Texas, College Station, Tex. (51). 1906. **A**
- Pusey, Wm. Allen, M. D., 572 Greenwood Boulevard, Evanston, Ill. (54). **B F G**
- Putnam, Miss Alice, Rye, N. Y. (60). **F L**
- Putnam, Chas. P., M. D., 63 Marlborough St., Boston, Mass. (28). **K**
- *Putnam, Edward K., Acting Director, Davenport Academy of Sciences, Davenport, Iowa. (58). 1909. **H**
- Putnam, Miss Elizabeth D., 2013 Brady St., Davenport, Iowa. (45).
- *Putnam, Prof. Frederic Ward, Peabody Museum, Cambridge Mass. (10). 1874. **F H**
- Putnam, Geo. Rockwell, U. S. Coast and Geodetic Survey, Washington, D. C. (57).
- Putnam, Helen C., M. D., Rhode Island Ave., Providence, R. I. (60). **K**
- Putnam, Henry St. Clair, 100 Broadway, New York, N. Y. (47). **D E**
- PUTNAM, WILLIAM LOWELL, 60 State St., Boston, Mass. (60).
- Pyle, William Henry, 138 Giles St., Ithaca, N. Y. (53). **I**
- Quackenbos, John Duncan, M. D., 331 West 28th St., New York, N. Y. (49). **H**
- Quain, Eric P., M. D., Bismarck, N. Dak. (60). **K**
- *Quaintance, A. L., U. S. Department of Agriculture, Washington, D. C. (51). 1903. **F**
- Quayle, Henry Josef, Assistant Professor of Entomology, Pathological Laboratory, Whittier, Cal. (55). **F**
- QUINAN, WILLIAM RUSSELL, General Manager, "Cape Explosive Works, Limited," West Somerset, Cape Colony, South Africa. (56). **C**
- Quincy, Mary A., M. D., Ashland, Nebr. (60). **K**
- *Quinn, John James, (52). 1905.
- Radcliffe, George Corlett, M. D., Peninsula, Ohio. (60). **K**
- Raht, August, care P. O. Box 621, San Francisco, Cal. (57). **C E**
- RAHT, CHARLES, P. O. Box 828, New York, N. Y. (57).
- Rainey, Frank Lewis, Professor of Biology, Central University, Danville, Ky. (58). **F K**
- *Ramaley, Francis, Professor of Biology, University of Colorado, Boulder, Colo. (45). 1899. **G**
- Rambaud, George Gibier, M. D., New York Pasteur Institute, West 23d St., New York, N. Y. (58). **K**
- Ramsden, Charles Theodore, Apartado 146, Guantanamo, Cuba. (58). **F**
- *Ramsey, Rolla Roy, Ph. D., Associate Professor of Physics, Indiana University, Bloomington, Ind. (50). 1906. **B**
- Ramsperger, Gustav, 424 Central Park, West, New York, N. Y. (57). **G**
- Ranchous, Walter E. M., M. D., 38 West 5th Ave., Columbus, Ohio. (60). **K**
- Ranck, Samuel Haverstick, Librarian, Public Library, Grand Rapids, Mich. (54). **I**
- Rand, Charles L., 618 Jefferson Ave., Brooklyn, N. Y. (58). **B C H**

- *Rand, Herbert Wilbur, Ph. D., Instructor in Zoology, Harvard University, Cambridge, Mass. (51). 1905. **F**
- Rand, Margaret, 46 Second St., Troy, N. Y. (60). **C**
- Randall, Burton Alexander, M. D., Professor of Otolaryngology, University of Pennsylvania, Philadelphia, Pa. (51). **K**
- Randall, Frank E., 444 Park Ave., New York, N. Y. (57).
- Randall, John L., 707 Lyceum Building, Pittsburg, Pa. (60). **F**
- Randall, Merle, 205 South 6th St., Poplar Bluff, Mo. (60). **C**
- Randall, Otis Everett, Ph. D., Professor of Mechanics and Mechanical Drawing, Brown University, Providence, R. I. (57). **A B D**
- Randolph, Anna Moon, M. D., Hatboro, Pa. (60). **K**
- Randolph, Beverley S., C. E., E. M., Berkeley Springs, W. Va. (50). **D E**
- Randolph, Harriet, Ph. D., Bryn Mawr College, Bryn Mawr, Pa. (58). **F**
- *Rane, Frank William, Waban, Mass. (42). 1900. **F G I L**
- Rankin, H. D., President, Rankin Chemical Reduction Co., 389 Ridge Ave., Crafton, Pa. (54). **B C**
- Rankin, Herbert E., 34 South Edwards Hall, Princeton, N. J. (61).
- *Rankin, Walter M., Ph. D., Professor of Biology, Princeton University, Princeton, N. J. (51). 1905. **F G**
- Rankin, William Aylmer, E. E., Painesdale, Mich. (60). **D**
- Ranly, John, M. D., 936 Clark St., Cincinnati, Ohio. (60). **K**
- Ransohoff, Joseph, M. D., Cincinnati, Ohio. (51). **K**
- Ranson, Brayton Howard, Chief, Division of Zoology, Bureau of Animal Industry, U. S. Dept. of Agriculture, Washington, D. C. (57). **F**
- *Ransom, James Harvey, Ph. D., Professor of General Chemistry, Purdue University, West Lafayette, Ind. (54). 1909. **C D**
- *Ransome, Frederick Leslie, Ph. D., U. S. Geological Survey, Washington, D. C. (52). 1903. **E**
- Rasely, Edwin R., M. D., Uniontown, Pa. (60). **K**
- Rathborne, Richard Charles, Newark, N. J. (57).
- Rathbun, John Charles, State Highway Office, Olympia, Wash. (53). **D**
- *Rathbun, Miss Mary J., U. S. National Museum, Washington, D. C. (52). 1906. **F**
- *Rathbun, Richard, Smithsonian Institution, Washington, D. C. (40). 1892. **F**
- Ratliff, R. F., Central Normal College, Danville, Ind. (60). **A**
- Rau, Albert George, Superintendent, Moravian Parochial School, Bethlehem, Pa. (50). **A B**
- Raubenheimer, Otto, 1341 Fulton St., Brooklyn, N. Y. (58). **B C G K**
- Rauschenberg, Oscar Caldwell, E. E., Southern Bell Telephone and Telegraph Co., Albany, Ga. (60). **D**
- Rawson, Edward B., 226 East 16th St., New York, N. Y. (61). **L**
- Ray, Dr. David Heydorn, Instructor in Physics, College of the City of New York, New York, N. Y. (61). **B D**
- Raycroft, Joseph E., M. D., University of Chicago, Chicago, Ill. (58). **K**
- Rayevsky, Charles, M. D., Liberty, N. Y. (60). **K**
- Raymer, George Sharp, Rotch Building, Cambridge, Mass. (50). **D E**

MEMBERS AND FELLOWS.

- Raymond, Daniel V., 325 Fairmount Ave., Tompkinsville, N. Y. (57).
 Raymond, E. I., M. D., New Windsor, Colo. (58). **K**
 Raymond, Prof. George Lansing, 1810 N St. N. W., Washington, D. C. (58). **L**
 Raymond, Howard Monroe, Dean, Armour Institute of Technology, Chicago, Ill. (58). **D**
 Raymond, Percy E., Ph. D., Professor of Invertebrate Paleontology, School of Mines, University of Pittsburg, Pittsburg, Pa. (57). **E F**
 *Raymond, Rossiter W., Ph. D., LL. D., 29 West 39th St., New York, N. Y. (15). 1875. **B C D E I K**
 *Raymond, William Galt, LL. D., Professor of Civil Engineering, State University of Iowa, Iowa City, Iowa. (44). 1896. **D L**
 Rayson, Miss Amy, 168 West 75th St., New York, N. Y. (60). **A**
 Rea, Prof. Paul Marshall, Director, The Charleston Museum, Charleston, S. C. (53). **F**
 *Read, Edmund E., Jr., 604 Cooper St., Camden, N. J. (54). 1906. **A**
 Read, Effie Alberta, Ph. D., Bureau of Chemistry, U. S. Department of Agriculture, Washington, D. C. (60). **C F**
 Read, Mrs. Robert M., 399 High St., West Medford, Mass. (57).
 Read, Thomas T., Ph. D., Professor of Metallurgy, Imperial Pei Yang University, Tientsin, China. (57). **D E**
 Reade, John Moore, Ph. D., Professor of Botany, University of Georgia, Athens, Ga. (56). **G**
 Reagan, Albert B., care Nett Lake Industrial School, Orr, Minn. (53). **E H**
 Reber, Wendell, M. D., 1212 Spruce St., Philadelphia, Pa. (60). **K**
 Réche, Miss Eugénie M., 31 Howell St., Rochester, N. Y. (41). **E H**
 Reckefus, Chas. H., Jr., M. D., 506 North 6th St., Philadelphia, Pa. (51). **F K**
 Rector, Frank L., 36 41st St., Brooklyn, N. Y. (60). **C**
 Reddick, Donald, Instructor in Plant Pathology, Cornell University, Ithaca, N. Y. (56). **G**
 Redgrave, Commander D. Clinton, U. S. N., 1505 Bolton St., Baltimore, Md. (60). **A D**
 Reed, Carlos S., Direccion General de Industrias, Mendoza, Argentine Republic, S. A. (61). **F**
 *Reed, Charles J., 3313 North 16th St., Philadelphia, Pa. (34). 1904. **B C**
 Reed, Edwyn C., Director del Museo, Concepcion, Chile, South America. (58). **F G H**
 *Reed, Frank Walker, Ph. D., Instructor in Astronomy, University of Illinois, Urbana, Ill. (58). 1910. **A**
 Reed, George Matthew, Assistant Professor of Botany, University of Missouri, Columbia, Mo. (60). **G**
 *Reed, Howard Sprague, Ph. D., Agricultural Experiment Station, Blacksburg, Va. (53). 1909. **C G**

MEMBERS AND FELLOWS.

- *Reed, Hugh Daniel, Ph. D., Assistant Professor of Vertebrate Zoology
Cornell University, Ithaca, N. Y. (49). 1906. **FL**
- Reed, John B., 1223 Vermont Ave., Washington, D. C. (60). **C**
- *Reed, John Oren, Ph. D., Dean, Dept. of Literature, Science and Arts,
University of Michigan, 907 Lincoln Ave., Ann Arbor, Mich. (44).
1898. **B**
- Reed, John T., E. M., Lovelocks, Nev. (60). **D**
- Reed, Leander Nelson, E. E., 79 Crescent Hill Ave., Arlington Heights,
Mass. (60). **D**
- Reed, Raymond C., Pine Plains, N. Y. (60). **K**
- Reed, William Gardner, Jr., Harvard University, Cambridge, Mass. (60).
- Reeder, J. Dawson, M. D., 639 North Fulton Ave., Baltimore, Md. (60).
K
- Reeds, Chester Albert, Yarrow West, Bryn Mawr, Pa. (60). **E**
- Reemelin, Edward B., M. D., 3471 Cheviot Ave., Station L, Cincinnati,
Ohio. (60). **K**
- *Reese, Albert Moore, Ph. D., Professor of Zoology, West Virginia Uni-
versity, Morgantown, W. Va. (52). 1906. **F**
- Reese, Arnold K., E. M., The Red House, Victoria Road, Penarth, Wales.
(60). **D**
- *Reese, Charles Lee, Ph. D., 1020 Jackson St., Wilmington, Del. (39).
1892. **C**
- *Reese, Herbert M., 411 Hitt St., Columbia, Mo. (49). 1906. **B**
- *Reese, Stanley Chester, Ph. D., 216 North Lang Ave., E. E., Pittsburg,
Pa. (58). 1909. **AD**
- Reeves, George I., Pullman, Washington. (57). **F**
- Regan, John Ward, 51 Waltham St., Lexington, Mass. (58). **ABDL**
- Rehder, Alfred, Arnold Arboretum, Jamaica Plain, Mass. (60).
- *Reichert, Edward Tyson, M. D., Professor of Physiology, University of
Pennsylvania, Philadelphia, Pa. (58). 1910. **FHK**
- *Reichmann, Fritz, Ph. D., Superintendent of Weights and Measures,
Room 427, Capitol, Albany, N. Y. (54). 1906. **B**
- *Reid, Harry Fielding, Ph. D., Johns Hopkins University, Baltimore, Md.
(36). 1893. **B**
- *Reid, Hon. Whitelaw, 451 Madison Ave., New York, N. Y. (50). 1901. **I**
- Reid, William B., M. D., 219 North Washington St., Rome, N. Y. (60).
K
- Reifsnnyder, Samuel K., 703 First Ave., Asbury Park, N. J. (50). **BC L**
- Reigart, John Franklin, 31 Euclid Ave., Yonkers, N. Y. (53). **L**
- *Reighard, Jacob, Professor of Zoology, University of Michigan, Ann Arbor,
Mich. (51). 1904. **F**
- Reiman, Henry, 320 West 111th St., New York, N. Y. (60). **C**
- Reimer, Arthur Adams, C. E., 45 South Mape Ave., East Orange, N. J.
(60). **D**
- Reinhardt, Prof. Wm. A. A., 1339 Hull St., Baltimore, Md. (58). **C**
- Reinoso, Ezequiel A., Lima, Peru, S. A. (60). **C**

MEMBERS AND FELLOWS.

- Reist, Henry G., M. E., Stratford and Avon Roads, Schenectady, N. Y. (50). **D G**
- Rembert, G. W. F., M. D., Baton Rouge, La. (60). **K**
- *Remington, Prof. Joseph Price, Philadelphia College of Pharmacy, 1832 Pine St., Philadelphia, Pa. (54). 1906. **K**
- Remington, Roe E., Agricultural College, N. D. (60). **C**
- *Remsen, Ira, M. D., Ph. D., LL. D., President, Johns Hopkins University, Baltimore, Md. (22). 1875. **C**
- Rendtorff, Edmund J., Lake Forest, Ill. (61). **B L**
- Renninger, John S., M. D., Marshall, Minn. (31). **C F**
- Rettger, Ernest William, Ph. D., Assistant Professor of Applied Mechanics, Cornell University, Ithaca, N. Y. (61). **B D**
- Rettger, Leo Frederick, 370 Edgewood Ave., New Haven, Conn. (60). **K**
- Retzer, Robert, M. D., University of Minnesota, Minneapolis, Minn. (60). **K**
- Reuling, George, M. D., 103 West Monument St., Baltimore Md. (60). **K**
- Reuter, Enzio Rafael, Ph. D., Fabriksgatan 21, Helsingfors, Finland, Europe. (58). **F**
- Revell, Daniel G., Provincial Bacteriologist, Edmonton, Alberta, Canada. (58). **K**
- Rew, Irwin, 1128 Ridge Ave., Evanston, Ill. (58).
- Reyling, Frederic F., M. D., 1004 Oak St., Kansas City, Mo. (58). **K**
- Reynolds, Edward, M. D., 321 Dartmouth St., Boston, Mass. (60). **K**
- *Reynolds, Dr. Frederick G., Instructor in Mathematics, College of the City of New York, New York, N. Y. (58). 1910. **A**
- Reynolds, George B., M. D., 809 North Charles St., Baltimore, Md. (60). **K**
- Rhamy, Bonuelle W., M. D., Fort Wayne, Ind. (60). **K**
- Rhodes, Frederick A., M. D., 632 Herron Ave., Pittsburg, Pa. (60). **K**
- *RHODES, JAMES FORD, LL. D., 392 Beacon St., Boston, Mass. (50). 1904. **I**
- *Rice, Edward Loranus, Ph. D., Professor of Zoology, Ohio Wesleyan University, Delaware, Ohio. (43). 1905. **F**
- Rice, Edwin Wilbur, Jr., General Electric Co., Schenectady, N. Y. (50). **D**
- Rice, Emily J., School of Education, University of Chicago, Chicago, Ill. (61). **L**
- Rice, Lepine Hall, 113 Concord Place, Syracuse, N. Y. (58). **A**
- *Rice, Martin Everett, Assistant Professor of Physics and Electrical Engineering, University of Kansas, Lawrence, Kans. (50). 1906. **B D**
- *Rice, William North, Ph. D., Professor of Geology, Wesleyan University, Middletown, Conn. (18). 1874. **E F L**
- Rich, John Lyon, 91 Wait Ave., Ithaca, N. Y. (60). **E**
- Rich, Michael P., M. D., 50 West 38th St., New York, N. Y. (40). **K**
- *Richards, Charles Brinkerhoff, Professor of Mechanical Engineering, Yale University, New Haven, Conn. (33). 1885. **D**

- Richards, E., Superintendent, Lynchburg Cotton Mills Company, Lynchburg, Va. (60).
- *RICHARDS, EDGAR, 60 Ayrault St., Newport, R. I. (31). 1886. **C**
- *Richards, Herbert Maule, Ph. D., Professor of Botany, Barnard College, Columbia University, New York, N. Y. (51). 1902. **G**
- *Richards, Horace Clark, Ph. D., Assistant Professor of Physics, University of Pennsylvania, Philadelphia, Pa. (58). 1910. **B**
- *Richards, Robert Hallowell, Professor of Mining Engineering and Metallurgy, Massachusetts Institute of Technology, Boston, Mass. (22). 1875. **D**
- *Richards, Mrs. Robert H., Instructor in Sanitary Chemistry, Massachusetts Institute of Technology, Boston, Mass. (23). 1878. **C I L**
- *Richards, Theodore William, Ph. D., LL. D., Professor of Chemistry, Harvard University, Cambridge, Mass. (47). 1899. **B C**
- Richardson, Bertrand Clifton, 536 East 7th St., Alton, Ill. (58). **L**
- Richardson, Major Charles A., Canandaigua, N. Y. (50). **I**
- *Richardson, Charles Henry, Ph. D., Syracuse University, Syracuse, N. Y. (47). 1906. **C E**
- Richardson, Charles Williamson, M. D., 1317 Connecticut Ave. N. W., Washington, D. C. (49). **K**
- *Richardson, Clifford, Proprietor, New York Testing Laboratory, 30 Church St., New York, N. Y. (30). 1884. **C D**
- Richardson, David Porter, M. D., Henderson, Texas. (60). **K**
- *Richardson, G. B., Ph. D., U. S. Geological Survey, Washington, D. C. (55). 1907. **E**
- *Richardson, Harriet, Ph. D., Smithsonian Institution, Washington, D. C. (49). 1903. **F**
- *Richardson, Mark Wyman, M. D., Secretary, State Board of Health, State House, Boston, Mass. (51). 1903. **K**
- Richardson, Maurice H., M. D., 224 Beacon St., Boston, Mass. (60). **K**
- Richardson, Roy S., 387a McDonough St., Brooklyn, N. Y. (58).
- Richardson, Russell, 87 Perry St., Brookline, Mass. (58). **K**
- *Richardson, William D., care Swift & Co., Chicago, Ill. (56). 1908. **C**
- Richardson, Wm. D., P. O. Box 185, Fredericksburg, Va. (52). **C F**
- Richey, Stephen O., Ph. D., 732 17th St. N. W., Washington, D. C. (54).
- Richmond, William Henry, Richmond Hill, Scranton, Pa. (50). **D E**
- Richter, Clemens L., M. D., 146 Grant Ave., San Francisco, Cal. (60). **K**
- Richtmann, William Oscar, Satsuma Heights, Fla. (58). **C G**
- *Rickard, Thomas Arthur, E. M., 819 Salisbury House, London, E. C., England. (50). 1906. **E**
- Ricker, Maurice, 1039 19th St., Des Moines, Iowa. (50). **F**
- *Ricker, N. Clifford, D. Arch., Dean, College of Engineering, University of Illinois, Urbana, Ill. (50). 1906. **D**
- *Ricker, Percy Leroy, U. S. Department of Agriculture, Washington, D. C. (52). 1906. **G**
- Ricketts, Louis Davidson, E. M., Cananea, Sonora, Mexico. (50). **D E**

MEMBERS AND FELLOWS.

- *Ricketts, Palmer Chamberlaine, C. E., President, Rensselaer Polytechnic Institute, Troy, N. Y. (33). 1887. **A D**
- *Ricketts, Prof. Pierre de Peyster, 104 John St., New York, N. Y. (26). 1880. **C D E**
- Ricketts, Col. R. Bruce, Wilkes-Barre, Pa. (33). **E**
- Ridder, Herman, *New York Staats Zeitung*, 182 William St., New York, N. Y. (57).
- *Riddle, Lincoln Ware, Ph. D., Associate Professor of Botany, Wellesley College, Wellesley, Mass. (52). 1910. **G**
- *Riddle, Oscar, Ph. D., Instructor in Zoology, University of Chicago, Chicago, Ill. (58). 1910. **F**
- Riebling, Henry F. A., E. M., 4345 Ames St., Denver, Colo. (60). **D**
- Riedel, J. Charles, C. E., 686 Halsey St., Brooklyn, N. Y. (60). **D**
- Riedel, E. R., 20 Langdon St., Cambridge, Mass. (60). **C**
- Rieger, Joseph, M. D., 509 Central Ave., Dunkirk, N. Y. (60). **K**
- Ries, Elias E., E. E., 116 Nassau St., New York, N. Y. (33). **B D H I K**
- *Ries, Heinrich, Ph. D., Professor of Economic Geology, Cornell University, Ithaca, N. Y. (41). 1898. **E**
- Riese, Bernhart L., M. D., 215 Wabash Ave., Chicago, Ill. (60). **K**
- Riesman, David, M. D., 1715 Spruce St., Philadelphia, Pa. (51). **K**
- *Rietz, Henry Lewis, Ph. D., Assistant Professor of Mathematics, University of Illinois, Urbana, Ill. (51). 1906. **A**
- Rigby, Wm. C., Corn Exchange Bank Building, Chicago, Ill. (58).
- Rigden, Effie Josephine, Agassiz Assistant in Zoology, University of California, Berkeley, Cal. (61). **F**
- Rigdon, Rufus L., M. D., 621 Chronicle Building, San Francisco, Cal. (60). **K**
- Riggs, John D., M. E., 162 North Pine Ave., Chicago, Ill. (60). **D**
- Riggs, Morris John, C. E., Manager, Toledo Plant, American Bridge Co., 3136 Collingwood Ave., Toledo Ohio. (60). **D**
- *Riggs, Norman Colman, Assistant Professor of Mathematics, Carnegie Technical Schools, Pittsburg, Pa. (54). 1907. **A**
- *Riggs, Robert Baird, Ph. D., Professor of Chemistry, Trinity College Hartford, Conn. (50). 1901. **C**
- Riggs, Theodore G., M. D., Pierre, S. D. (60). **K**
- Rightor, Fred Elmer, E. M., Office Engineer, Texas Bitulithic Co., El Paso, Tex. (60). **D**
- Riker, Clarence B., Maplewood, N. J. (52). **F**
- Riley, Cassius M., M. D., Professor of Chemistry, Barnes University, St. Louis, Mo. (53). **C**
- Riley, C. F. Curtis, Professor of Biology and Curator of Museum, State Normal School, Mankato, Minn. (57). **F**
- *Riley, Isaac Woodbridge, Ph. D., Professor of Philosophy, Vassar College, Poughkeepsie, N. Y. (52). 1904. **H I**
- *Riley, William Albert, Ph. D., Assistant Professor of Entomology, Cornell University, Ithaca, N. Y. (51). 1908. **F**

- Ripley, G. E., University of Arkansas, Fayetteville, Ark. (61). **G**
- Risk, J. Boyd, M. D., P. O. Box 34, Summit, N. J. (60). **K**
- Rissmann, Otto, General Manager, National Zinc Co., Bartlesville, Okla. (50). **CE**
- Ritchie, Craig D., 414 North 34th St., Philadelphia, Pa. (51).
- *Ritter, William Emerson, Ph. D., Director, Marine Biological Station, San Diego, Cal. (50). 1901. **FH**
- Rives, George Lockhart, 69 East 79th St., New York, N. Y. (58). **I**
- Rixford, Emmet, M. D., 1795 California St., San Francisco, Cal. (60). **K**
- Roark, Ruric Creegan, 910 Nevada St., Urbana, Ill. (58). **C**
- Robb, Hunter, M. D., 702 Rose Building, Cleveland, Ohio. (51). **K**
- Robb, James Hampden, 23 Park Ave., New York, N. Y. (50).
- *Robb, Wm. Lispenard, P. O. Box 592, Troy, N. Y. (58). 1910. **BD**
- Robbins, Gilbert E., M. D., Chillicothe, Ohio. (60). **K**
- Robbins, Miss Harriet L., 35 West 48th St., New York, N. Y. (57).
- Robbins, William Bradford, M. D., 384 Commonwealth Ave., Boston, Mass. (60). **K**
- Robert, Henry Martyn, Brigadier-General, U. S. A., Retired, Owego, N. Y. (54). **AEIL**
- ROBERT, SAMUEL, 906 Park Ave., New York, N. Y. (57).
- Roberts, Charlotte F., College Hall, Wellesley, Mass. (60). **C**
- Roberts, Christopher H., 10 Washington Place, New York, N. Y. (57). **F**
- Roberts, Hon. George Evan, President, Commercial National Bank, Chicago, Ill. (58). **I**
- Roberts, H. L., Professor of Agriculture, State Normal School, Cape Girardeau, Mo. (52). **EF G**
- Roberts, John Bingham, M. D., 313 South 17th St., Philadelphia, Pa. (55). **K**
- Roberts, John M., Secretary, Central Scientific Co., 345-349 West Michigan St., Chicago, Ill. (58).
- Roberts, John William, Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C. (60). **G**
- Roberts, Milnor, Dean, School of Mines, University of Washington, Seattle, Wash. (50). **DE**
- Roberts, P. R., care F. Blumenthal & Co., Wilmington, Del. (58). **BCDFHIL**
- Roberts, Thomas Paschall, C. E., 361 North Craig St., Pittsburg, Pa. (51). **D**
- Roberts, Thomas S., M. D., 1603 4th Ave., South, Minneapolis, Minn. (61). **K**
- *Robertson, Alice, Ph. D., Instructor in Zoology, Wellesley College, Wellesley, Mass. (54). 1909. **FK**
- *Robertson, Charles, Carlinville, Ill. (53). 1906. **F**
- Robertson, W. Rees B., 31 Wendell St., Cambridge, Mass. (61). **F**
- Robertson, William M., M. D., Warren, Pa. (60). **K**
- Robinovitch, Louise G., M. D., 28 West 126th St., New York, N. Y. (57). **K**

MEMBERS AND FELLOWS.

- *Robinson, Benjamin Lincoln, Ph. D., Curator, Gray Herbarium, Cambridge, Mass. (41). 1893. **G**
- *Robinson, Charles Budd, Ph. D., Bureau of Science, Manila, P. I. (58). 1909. **G**
- *Robinson, Mrs. Daisy M. Orleman, M. D., 159 West 49th St., New York, N. Y. (40). 1897. **K**
 Robinson, Emma C., 219 Union Ave., Mt. Vernon, N. Y. (60). **L**
 Robinson, Garland P., M. E., 8 Chestnut St., Albany, N. Y. (60). **D**
 Robinson, George Livingstone, Ph. D., 4 Chalmers Place, Chicago, Ill. (58).
 Robinson, H. B., M. E., Box 135, Allentown, Pa. (60). **D**
 Robinson, Henry Smith, M. E., 97 Main St., Andover, Mass. (60). **D**
 Robinson, John Knowlton, E. E., 116 Broad St., New York, N. Y. (60). **D**
- *Robinson, Otis Hall, Ph. D., Professor of Natural Philosophy, University of Rochester, Rochester, N. Y. (23). 1901. **A B**
- *Robinson, Philip Ely, Ph. D., Assistant Professor of Physics, Princeton University, Princeton, N. J. (58). 1910. **A B C D**
 Robinson, Samuel Adams, M. D., 800 Northup St., Portland, Oregon. (51). **H I K**
 Robinson, Sanford, C. E., E. M., Room 1400, Union Trust Building, Los Angeles, Cal. (50). **D**
- *Robinson, Prof. Stillman Williams, 1353 Highland St., Columbus, Ohio. (30). 1883. **A B D**
 Robinson, William Orrin, U. S. Department of Agriculture, Washington, D. C. (58). **C**
 Robinson, Miss Winifred J., Instructor in Botany, Vassar College, Poughkeepsie, N. Y. (55). **G**
 Robison, Clarence H., State Normal School, Montclair, N. J. (60). **F G L**
 Rochester, DeLancey, M. D., 469 Franklin St., Buffalo, N. Y. (35). **F K**
 Rockenback, Captain Samuel Dickerson, 12th U. S. Cavalry, Manila, P. I. (60). **D**
 Rocky, Alpha E., M. D., Electric Building, 7th and Alder Sts., Portland, Ore. (51). **K**
- *Rockwood, Charles Greene, Jr., Ph. D., 34 Bayard Lane, Princeton, N. J. (20). 1874. **A B D E**
- *Rockwood, Elbert William, M. D., Ph. D., Professor of Chemistry and Toxicology, State University of Iowa, Iowa City, Iowa. (50). 1906. **C K**
- Roddy, Harry Justin, Ph. D., Professor of Geology and Geography, State Normal School, Millersville, Pa. (57). **B E**
- Rodgers, George Brauner, E. E., 918 Rialto Building, St. Louis, Mo. (58). **D**
 Rodgers, Thomas T., 6242 Monroe Ave., Chicago, Ill. (58). **C**
- *Roe, Edward Drake, Jr., Professor of Mathematics, Syracuse University, Syracuse, N. Y. (50). 1906. **A**
- Roehr, Charles G., M. D., Box 327, Fort Pierce, Fla. (58). **K**

MEMBERS AND FELLOWS.

- Roessler, Franz, 39 High St., Perth Amboy, N. J. (39). **C**
- *Roever, William Henry, Ph. D., Washington University, St. Louis, Mo. (53). 1906. **A**
- Rogers, Arthur C., M. D., Faribault, Minn. (60). **K**
- *Rogers, Charles Gardner, Ph. D., Associate Professor of Physiology, Syracuse University, Syracuse, N. Y. (57). 1909. **FK**
- Rogers, Fred. A., E. E., Lewis Institute, Chicago, Ill. (60). **D**
- Rogers, Howard J., Department of Education, Albany, N. Y. (52). **L**
- Rogers, Mrs. William Barton, 117 Marlborough St., Boston, Mass. (60).
- Rohde, Miss Alice, 529 North Wolfe St., Baltimore, Md. (58). **K**
- Rohrer, C. W. G., M. D., Associate Professor of Pathology, College of Physicians and Surgeons, Baltimore, Md. (58). **FK**
- *Rolf, P. H., 108 South Arredonda St., Gainesville, Fla. (41). 1899. **G**
- Rolker, Charles M., E. M., Leadenhall Buildings, London, E. C., England. (60). **D**
- Rominger, Louis, M. D., 1414 Highland Ave., Louisville, Ky. (60). **K**
- Rood, James Theron, Ph. D., Lafayette College, Easton, Pa. (58).
ABD
- Roop, Hervin Ulysses, Ph. D., President, Eastern College, Manassas, Va. (58). **HIK**
- Roosevelt, W. E., P. O. Box 1222, New York, N. Y. (57).
- *Root, Hon. Elihu, 1500 Rhode Island Ave., Washington, D. C. (50). 1901. **I**
- Roper, Gertrude L., 408 Hubbard Ave., Detroit, Mich. (60). **AB**
- Ropes, Prof. James Hardy, 13 Follen St., Cambridge, Mass. (60).
- Rorer, James Birch, Board of Agriculture, Trinidad, B. W. I. (51). **G**
- *Rorer, Jonathan T., Ph. D., Professor of Mathematics, Wm. Penn High School for Girls, Philadelphia, Pa. (47). 1906. **ADL**
- *Rosa, Edward Bennett, Bureau of Standards, Washington, D. C. (39). 1892. **AB**
- *Rosanoff, Martin A., Professor of Chemistry, Clark University, Worcester, Mass. (60). 1910. **C**
- *Rose, Joseph Nelson, Ph. D., U. S. National Museum, Washington, D. C. (52). 1905. **G**
- *Rosenau, Milton Joseph, M. D., Professor of Hygiene and Preventive Medicine, Harvard University, Cambridge, Mass. (51). 1906. **K**
- Ro enbloom, Jacob, M. D., care College of Physicians and Surgeons, 437 West 59th St., New York, N. Y. (57). **CK**
- *Rosendahl, C. Otto, Ph. D., Assistant Professor of Botany, University of Minnesota, Minneapolis, Minn. (58). 1909. **G**
- Rosenfeld, Arthur H., care State Crop Pest Commission, Baton Rouge, La. (57). **F**
- Rosengarten, George D., Ph. D., P. O. Box 1625, Philadelphia, Pa. (58).
C
- Rosenthal, Edwin, M. D., 517 Pine St., Philadelphia, Pa. (51). **K**
- *Ross, Bennet Battle, Professor of Chemistry, Alabama Polytechnic Institute, Auburn, Ala. (45). 1906. **C**

MEMBERS AND FELLOWS.

- *Ross, Denman Waldo, Ph. D., 24 Craigie St., Cambridge, Mass. (29).
1906.
- Ross, Prof. H. H., Piqua, Ohio. (58). **C**
- Ross, Luther S., Professor of Biology, Drake University, Des Moines,
Iowa. (61). **F**
- Ross, William J., M. D., 13 John St., Clayton, N. Y. (60). **K**
- *Rotch, Prof. A. Lawrence, Director, Blue Hill Meteorological Observa-
tory, Hyde Park, Mass. (39). 1896. **B**
- Rothermel, John G., Superintendent, Wagner Free Institute of Science,
Philadelphia, Pa. (53). **E F**
- Rothermel, John Jacob, Teacher of Physics, Eastern High School, Wash-
ington, D. C. (51). **B D L**
- *Rothrock, David A., Ph. D., Professor of Mathematics, University of
Indiana, Bloomington, Ind. (58). 1908. **A D L**
- Rothschild, Jacob, Hotel Majestic, New York, N. Y. (50).
- Rothwell, William P., M. D., 26 High St., Pawtucket, R. I. (60). **K**
- *Rotzell, Willett Enos, M. D., 200 South 40th St., Philadelphia, Pa. (45).
1906. **F H K**
- Rouiller, Chas. August, Ph. D., Johns Hopkins University, Baltimore,
Md. (58). **C**
- Rouse, B. Irving, 981 Lake Ave., Rochester, N. Y. (57). **C E**
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- Rousmaniere, Francis H., Ph. D., P. O. Box 763, Northampton, Mass.
(58). **K**
- Rowand, Lewis G., E. M., care N. J. Zinc Co., 55 Wall St., New York,
N. Y. (60). **D**
- Rowe, Jesse Perry, Ph. D., Professor of Physics and Geology, University
of Montana, Missoula, Mont. (52). **B E**
- Rowlands, Charles, Otto, Pa. (58). **C**
- *Rowlee, Willard Winfield, Professor of Botany, Cornell University,
Ithaca, N. Y. (41). 1894. **G**
- *ROY, ARTHUR J., C. E., Dudley Observatory, Albany, N. Y. (50).
1908. **A**
- *Royce, Josiah, Ph. D., Professor of History of Philosophy, Harvard
University, Cambridge, Mass. (57). 1909. **H**
- Rubovits, Toby, 319-327 Fifth Ave., Chicago, Ill. (58).
- Ruddle, John, C. E., P. O. Box 331, Mauch Chunk, Pa. (60). **D**
- Rudisch, Julius, M. D., 39 East 63d St., New York, N. Y. (57). **K**
- Rudnick, Paul, 640 Grace St., Chicago, Ill. (60). **C**
- Rudolph, Henry L., M. D., P. O. Box 22, Gainesville, Ga. (60). **K**
- *Ruedemann, Rudolf, Ph. D., Assistant State Paleontologist, State Hall,
Albany, N. Y. (52). 1906. **E**
- Ruediger, Gustav Ferdinand, M. D., Ph. D., Professor of Bacteriology
and Pathology, University of North Dakota, Grand Forks, N. D.
(58). **K**
- *Ruediger, Wm. Carl, Ph. D., George Washington University Washington,
D. C. (58). 1910. **H L**

MEMBERS AND FELLOWS.

- Ruffin, Sterling, M. D., Professor of Theory and Practice of Medicine, George Washington University, Washington, D. C. (52). **K**
- Ruger, Henry Alford, 1311 North Wahsatch Ave., Colorado Springs, Colo. (54). **HL**
- Ruggles, Arthur Gordon, Minnesota Experiment Station, St. Anthony Park, Minn. (58). **F**
- Ruhl, Louis, 100 William St., New York, N. Y. (58). **CD**
- Rumbold, Miss Caroline, 5903 von Versen Ave., St. Louis, Mo. (53). **G**
- Rummler, William R., 1400 Tribune Building, Chicago, Ill. (58).
BCDHIK
- Rumsey, William Earle, 415 Park St., Morgantown, W. Va. (58). **F**
- Rundlett, David L., M. D., P. O. Box 148, Sioux Falls, S. D. (60). **K**
- Runkle, Erwin William, Ph. D., Professor of Psychology and Ethics, State College, Pa. (58). **HL**
- Runner, George A., Bureau of Entomology, U. S. Department of Agriculture, Washington, D. C. (58). **F**
- *Running, Theodore R., Ph. D., Assistant Professor of Mathematics, University of Michigan, Ann Arbor, Mich. (50). 1906. **A**
- Runyan, Elmer Gardner, Hutchins Building, 10th and D Sts. N. W. Washington, D. C. (58). **CDE**
- Runyon, Walter C., E. M., Hotel Marie Antoinette, New York, N. Y. (60). **D**
- Rupf, Ernest L., M. E., Monroe Place, Port Chester, N. Y. (60). **D**
- Rupp, August, Associate Professor of Latin, College of City of New York, New York, N. Y. (35). **EL**
- Ruppersburg, Miss Emma A., 842 South High St., Columbus, Ohio. (48). **B**
- *Rusby, Henry H., M. D., 115 West 68th St., New York, N. Y. (36). 1890. **GKL**
- Rusk, Glanville Y., M. D., New York Pathological Institute, Wards Island, New York, N. Y. (54). **K**
- *Rusk, William James, Professor of Mathematics and Astronomy, Iowa College, Grinnell, Iowa. (57). 1909. **A**
- *Russell, Col. A. H., U. S. A., War Department, Washington, D. C. (38). 1906. **D**
- Russell, Bert, Assistant Examiner of Patents, U. S. Patent Office, Washington, D. C. (58). **CFGK**
- *Russell, Harry Luman, Ph. D., Dean, College of Agriculture, University of Wisconsin, Madison, Wis. (41). 1894. **K**
- Russell, H. M., Bureau of Entomology, U. S. Department of Agriculture, Washington, D. C. (58). **F**
- *Russell, Henry Norris, Ph. D., Assistant Professor of Astronomy, Princeton University, Princeton, N. J. (54). 1906. **A**
- *Russell, James Earl, Ph. D., Dean, Teachers College, Columbia University, New York, N. Y. (50). 1901. **HL**
- Russell, Janet L., 329 West 83d St., New York, N. Y. (57).

MEMBERS AND FELLOWS.

- Russell, Thomas Hubbard, M. D., 137 Elm St., New Haven, Conn. (54).
K
- Russell, William Polk, Pomona College, Claremont, Cal. (60). **A**
- Ruthven, Alex. G., Ph. D., Curator, University Museum, University of Michigan, Ann Arbor, Mich. (54). **F**
- Rutkauskas, Anthony Kazis, M. D., 8829 Commercial Ave., South Chicago, Ill. (58). **K**
- *Rutter, Frank Roy, Ph. D., U. S. Department of Agriculture, Washington, D. C. (47). 1900. **I**
- Ruzicka, D. J., M. D., 334 East 72d St., New York, N. Y. (60). **K**
- *Ryan, Harris Joseph, Professor of Electrical Engineering, Leland Stanford Junior University, Stanford University, Cal. (38). 1890. **B**
- *Rydberg, Per Axel, Ph. D., Curator, New York Botanical Garden, Bronx Park, New York, N. Y. (49). 1901. **G**
- RYERSON, MARTIN A., Corn Exchange Bank Building, 201 La Salle St., Chicago, Ill. (58).
- Ryfkogel, Henry A. L., M. D., 162 Post St., San Francisco, Cal. (60). **K**
- Sabichi, George Carlos, M. D., 1620 17th St., Bakersfield, Cal. (60). **K**
- Sabin, A. H., 432 Sanford Ave., Flushing, L. I., N. Y. (60). **C**
- *Sabin, Florence R., M. D., Associate Professor of Anatomy, Johns Hopkins University Medical School, Baltimore, Md. (57). 1910. **K**
- *Sabine, Wallace Clement, 40 Shepard St., Cambridge, Mass. (47). 1900. **B**
- *Sachs, Julius, Ph. D., Professor of Secondary Education, Teachers College, Columbia University, New York, N. Y. (58). 1910. **L**
- Sackett, Robert Lemuel, C. E., Purdue University, Lafayette, Ind. (50). **D**
- Sackett, Walter George, Bacteriologist, Agricultural Experiment Station, Fort Collins, Colo. (32). **G K**
- Sadler, William S., M. D., 100 State St., Chicago, Ill. (58). **K**
- Sadowski, Leon, M. D., cor. Webster and Herron Aves., Pittsburg, Pa. (58). **K**
- *Sadtler, Samuel Philip, Ph. D., LL. D., Consulting Chemist, 39 South Tenth St., Philadelphia, Pa. (51). 1904. **C**
- *Saegmuller, George N., 762 St. Paul St., Rochester, N. Y. (38). 1891.
A D
- *Safford, Frederick Hollister, Ph. D., University of Pennsylvania, Philadelphia, Pa. (54). 1906. **A B D**
- Safford, William Edwin, U. S. Department of Agriculture, Washington, D. C. (55). **E F G H I**
- *Sage, John Hall, Secretary, American Ornithologists' Union, Portland, Conn. (23). 1906. **F**
- *St. John, Charles Edward, Ph. D., Solar Observatory, Pasadena, Cal. (46). 1900. **A B**
- St. John, E. Quintard, M. D., 1833 Chestnut St., Philadelphia, Pa. (60).
C K
- St. John, Howell W., P. O. Box 913, Hartford, Conn. (49). **I**

- *Sajous, Charles E. de M., M. D., 2043 Walnut St., Philadelphia, Pa. (54).
1906. **K**
- *Salant, William, M. D., 437 West 59th St., New York, N. Y. (56). 1910.
K
- Salathé, Frederick, Ph. D., 822 East Third St., Los Angeles, Cal. (51). **C**
- Salinger, David, M. D., 103 State St., Chicago, Ill. (60). **K**
- *Salisbury, Rollin D., Professor of Geology and Geography, University
of Chicago, Chicago, Ill. (37). **B E**
- Salisbury, Samuel Henry, Jr., 16 Miller St., Seneca Falls, N. Y. (57). **C**
- *Salmon, Daniel Elmer, M. D., Calle Rivera 310, Montevideo, Uruguay,
S. A. (31). 1885. **K**
- Salter, Allen, M. D., Lena, Ill. (58). **K**
- Sammis, John Langley, Ph. D., College of Agriculture, University of
Wisconsin, Madison, Wis. (58). **C**
- Sampson, Prof. Hiram Calvin, President, Normal School, Cheney, Wash.
(61). **L**
- Sanborn, James Forrest, C. E., New Paltz, N. Y. (60). **D**
- Sandblad, Alexander G., M. D., 728 So. Union Ave., McKeesport, Pa.
(58). **K**
- Sanders, George E., Office of the Entomologist, Experimental Farms,
Ottawa, Canada. (60). **F**
- Sanders, James G., College of Agriculture, University of Wisconsin,
Madison, Wis. (54). **F**
- *Sanderson, Ezra Dwight, Agricultural Experiment Station, Durham,
N. H. (50). 1904. **F**
- Sanderson, Miss Mary R., McDowell, Ariz. (58). **H**
- Sando, Will J., 430 Kane Place, Milwaukee, Wis. (51). **E**
- Sandsten, E. P., care B. R. V. I. Co., R. F. D. No. 3, Stevensville, Mont-
tana. (54).
- Sanes, Kay I., M. D., 1636 5th Ave., Pittsburg, Pa. (51). **K**
- *Sanford, Edmund Clark, Ph. D., President, Clark University, Worcester,
Mass. (49). 1902. **H K**
- *Sanford, Fernando, Professor of Physics, Leland Stanford Junior Uni-
versity, Stanford University, Cal. (50). 1901. **B**
- Sanford, George Ruggles, care Solvay Process Co., Syracuse, N. Y. (58).
C D
- Sanford, Samuel, U. S. Geological Survey, Washington, D. C. (58).
- Sang, Alfred, 96 Boulevard de Versailles, St. Cloud, S. et O., France.
(58). **C D**
- Sanger, Frank Dyer, M. D., 525 North Charles St., Baltimore, Md. (57).
H K
- Santee, Leon B., M. D., R. F. D., Limaville, Ohio. (60). **K**
- *Sardeson, Frederick William, Ph. D., Assistant Professor of Geology,
University of Minnesota, Minneapolis, Minn. (50). 1906. **E**
- Sargent, Ara Nathaniel, M. D., 116 Federal St., Salem, Mass. (51). **K**
- *Sargent, Dudley Allen, M. D., Director, Hemenway Gymnasium, Har-
vard University, Cambridge, Mass. (47). 1899. **H I K L**

MEMBERS AND FELLOWS.

- Sargent, Frederick Le Roy, 27 Everett St., Cambridge, Mass. (54). **GL**
- Sargent, Henry B., M. E., 247 Church St., New Haven, Conn. (60). **D**
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- Sargent, William D., E.E., Vice-President, N. Y. and N. J. Telephone Co.,
81 Willoughby St., Brooklyn, N. Y. (60). **D**
- Sargent, Winthrop, Haverford, Pa. (54). **D**
- Sarle, Clifton J., El Paso, Tex. (55). **E**
- Sasscer, E. Ralph, Bureau of Entomology, U. S. Department of Agriculture,
Washington, D. C. (58). **F**
- Satterlee, Frederick Le Roy, M. D., 6 West 56th St., New York, N. Y.
(50). **CD**
- Satterthwait, Alfred F., Assistant Zoologist, Middletown, Pa. (57). **F**
- Sattler, Gustave, 11 Regis Building, Cincinnati, Ohio. (60). **C**
- *Saunders, Arthur Percy, Ph. D., Hamilton College, Clinton, N. Y. (48).
1900. **C**
- *Saunders, Charles Edward, Ph. D., Central Experimental Farm, Ottawa,
Canada. (41). 1895. **G**
- Saunders, Charles Winston, 740 Hoje St., Shreveport, La. (58). **ACG**
- Saunders, Edward W., M. D., 3003 Lafayette Ave., St. Louis, Mo. (51).
CK
- *Saunders, F. A., Ph. D., Syracuse University, Syracuse, N. Y. (48).
1906. **B**
- Saunders, James, M. D., 217 Border St., Orange, Texas. (52). **K**
- *Saunders, William, L.L. D., Director, Canadian Experimental Farms,
Ottawa, Canada. (17). 1874. **G**
- Saunders, Wm. E., E. M., Torresdale, Philadelphia, Pa. (58). **D**
- *Saurel, Paul Louis, Ph. D., Associate Professor of Mathematics, College
of the City of New York, New York, N. Y. (58). 1909. **A**
- Savage, George Hubbard, 180 Lincoln St., Worcester, Mass. (58). **BCD**
- *Savage, Thomas Edmund, University of Illinois, Urbana, Ill. (52).
1908. **E**
- *Savage, Watson L., M. D., E. E., 100 Tennyson St., Pittsburg, Pa. (51).
1902. **K**
- *Saville, Prof. Marshall Howard, American Museum of Natural History,
New York, N. Y. (39). 1892. **H**
- Sawtelle, William Otis, 4 Mercer Circle, Cambridge, Mass. (57). **AB**
- Sawyer, Arthur Rodney, E. E., Professor of Physics and Electrical Engineering,
Mich. Agricultural College, East Lansing, Mich. (58). **BD**
- Sawyer, Frederic Hayward, Teacher in Public Schools, 16 Sparhawk St.,
Brighton District, Boston, Mass. (58). **BEL**
- Sawyer, Harris E., Bureau of Chemistry, U. S. Department of Agriculture,
Washington, D. C. (60). **C**
- Sawyer, John P., M. D., 536 Rose Building, Cleveland, Ohio. (60). **K**
- Sawyer, M. Louise, 245 Villa St., Elgin, Ill. (60). **AB**
- Saxton, Lynn Mateer, College of the City of New York, New York, N. Y.
(58). **AL**
- Sayles, Robert Wilcox, 263 Hammond St., Chestnut Hill, Mass. (55). **E**

- *Sayre, Herbert Armistead, Ph. D., Professor of Mathematics, University of Alabama, University, Ala. (54). 1906. **A**
- Scaife, Marvin F., E. M., 514 North Ave., Allegheny, Pa. (60). **D**
- Scaife, William Lucien, 28th St., Pittsburg, Pa. (51). **B D**
- Schaak, Milton Franklin, Ph. D., 108 Penn St., Brooklyn, N. Y. (58.)
B C
- *SCHAEBERLE, J. M., 502 Second St., Ann Arbor, Mich. (34). 1886. **A**
- Schaeffer, Mrs. Charles Ashmead, The Lenox, Washington, D. C. (60).
Schaefer, Marie Charlotte, M. D., University of Texas, Galveston, Tex.
(58). **F K L**
- Schaeffer, Jacob Parsons, M. D., Instructor in Anatomy, Cornell University Medical College, Ithaca, N. Y. (60). **K**
- SCHAEFFER, MRS. MARY TOWNSEND SHARPLESS, 1309 Arch St., Philadelphia, Pa. (38). **E F**
- *Schaffner, John Henry, Botanical Department, Ohio State University, Columbus, Ohio. (48). 1899. **G**
- *Schaller, Waldemar T., U. S. Geological Survey, Washington, D. C. (53). 1910. **C E**
- Schallert, P. O., M. D., Johnson Creek, Wis. (60). **K**
- Schapper, Ferdinand C., 538 Arlington Place, Chicago, Ill. (60). **C**
- Scharar, Christian H., 2073 North Main Ave., Scranton, Pa. (33).
A D E H
- Schaub, Ira O., West Raleigh, N. C. (58). **C E**
- Schenck, Charles C., Ph. D., 1007 St. Paul St., Baltimore, Md. (51). **B**
- Schenck, W. Edwards, M. D., 19 West 7th St., Cincinnati, Ohio. (60). **K**
- Scherer, James A. B., Throop Polytechnic Institute, Pasadena, Cal. (61). **L**
- Scherf, Charles Henry, 568 Cherry St., Elizabeth, N. J. (53). **E F G**
- SCHERMERHORN, FREDERICK AUGUSTUS, 101 University Place, New York, N. Y. (36).
- Schernikow, Ernest, 42 Broadway, New York, N. Y. (49).
- Schiedt, Richard Conrad, Ph. D., Professor of Biology, Franklin and Marshall College, Lancaster, Pa. (50). **F**
- Schieffelin, Eugene, 865 Madison Ave., New York, N. Y. (50).
- Schiff, David C., D.D.S., 401 Schiller Building, Chicago, Ill. (58).
- Schildhauer, Edward, E. E., Culebra, Canal Zone, Panama. (60). **D**
- Schimpf, Henry William, M. D., 443 West 34th St., New York, N. Y. (58). **C**
- Schlachter, Carl H., E. M., 266 Harrison St., Passaic, N. J. (60). **D**
- Schlegel, Gustavus, M. D., 151 West 91st St., New York, N. Y. (60). **K**
- *Schlesinger, Frank, The Observatory, Allegheny, Pa. (51). 1902. **A**
- *Schlesinger, Herman I., Ph. D., Associate Professor of Chemistry, University of Chicago, Chicago, Ill. (58). 1910. **C**
- Schlitz, Francis A., M. D., 28 Jefferson St., Brooklyn, N. Y. (60). **K**
- *Schlotterbeck, Julius Otto, Ph. D., 1319 Israel Hall Ave., Ann Arbor, Mich. (46). 1899. **C G**
- *Schlundt, Herman, Westmount, Columbia, Mo. (60). 1910. **C**

- *Schneckeber, Laurence Frederick, Ph. D., Department of the Interior, Washington, D. C. (50). 1902. **E I**
- Schmid, H. Ernest, M. D., White Plains, N. Y. (25). **K**
- Schmidt, Albert H., 5491 Higgins Ave., Chicago, Ill. (58). **CG**
- Schmitter, Dr. Ferdinand, Fort Slocum, New Rochelle, N. Y. (58). **K**
- *Schmucker, Samuel Christian, Ph. D., Professor of Biological Sciences, State Normal School, West Chester, Pa. (53). 1906. **FG**
- *Schneider, Albert, 723 Pacific Building, San Francisco, Cal. (54). 1906. **C**
- Schneider, Edward Christian, Ph. D., Professor of Biology, Colorado College, Colorado Springs, Colo. (55). **GK**
- Schneider, Joseph, M. D., Pabst Theater Building, Milwaukee, Wis. (58). **K**
- Schniewind, F., Ph. D., Chemical Engineer, 17 Battery Place, New York, N. Y. (57). **C**
- Schniewind, Heinrich, Jr., 18 West 18th St., New York, N. Y. (57).
- *Schober, Wm. Bush, Ph. D., Professor of Chemistry, Lehigh University, South Bethlehem, Pa. (52). 1905. **C**
- Schobinger, John J., 10831 Armida Ave., Morgan Park, Ill. (34). **BL**
- Schoch, Eugene Paul, Ph. D., School of Chemistry, University of Texas, Austin, Tex. (58). **C**
- Schoede, August H., Concordia, Mo. (58). **ABC**
- Schoellkopf, J. F., 499 Delaware Ave., Buffalo, N. Y. (58). **C**
- *Schöney, Lazarus, M. D., 2460 7th Ave., New York, N. Y. (29). 1900. **FGK**
- Schoonhoven, John J., 1374 Union St., Brooklyn, N. Y. (52). **FH**
- Schott, Chas. M., Jr., 25 Broad St., New York, N. Y. (57). **EHK**
- *Schottenfels, Ida M., 684 East 48th Place, Chicago, Ill. (58). 1908. **A**
- *Schreiner, Oswald, Bureau of Soils, U. S. Department of Agriculture, Washington, D. C. (58). 1910. **C**
- *Schuchert, Charles, Professor of Paleontology, Yale University, New Haven, Conn. (52). 1905. **E**
- Schuh, Richard Edwin, Ph. D., Professor of Biology, Howard University, Washington, D. C. (54). **FG**
- Schulte, E. D. Nelson, P. O. Box 47, Troy, N. Y. (60). **B**
- Schulte, George Henry, M. E., 531 Terrace Ave., Milwaukee, Wis. (60). **D**
- Schulte, Herman von Wechlinger, 176 West 87th St., New York, N. Y. (60). **K**
- Schultz, Alfred Reginald, Ph. D., U. S. Geological Survey, Washington, D. C. (57). **E**
- Schultz, Carl H., 430-444 First Ave., New York, N. Y. (29).
- *Schultz, Louis G., Oficina Meteorologica Argentina, Viamonte 640, Buenos Ayres, Argentine Republic, S. A. (52). 1907. **B**
- *Schultze, Arthur, Ph. D., 37 Ridge Ave., Rutherford, N. J. (54). 1906. **A**
- Schulz, William F., University of Illinois, Urbana, Ill. (60). **B**

- *Schurman, Jacob Gould, Ph. D., LL.D., President, Cornell University, Ithaca, N. Y. (49). 1901. **I**
- Schuster, Bruno L., M. D., Immigration Department, Port Huron, Mich. (60). **K**
- Schuster, Michael P., M. D., care Providence Hospital, El Paso, Texas. (60). **K**
- Schuyler, Sidney B., Box 224, Webster Groves, Mo. (58). **H**
- Schwartz, Frederick W., Department of Chemistry, Rensselaer Polytechnic Institute, Albany, N. Y. (57). **C**
- *Schwarz, Eugene A., U. S. Department of Agriculture, Washington, D. C. (29). 1895. **F**
- *Schwatt, Isaac Joachim, Assistant Professor of Mathematics, University of Pennsylvania, Philadelphia, Pa. (51). 1902. **A**
- Schweitzer, Arthur Richard, 452 Oakdale Ave., Chicago, Ill. (60). **A**
- *Schweitzer, Paul, Professor of Chemistry, University of Missouri, Columbia, Mo. (24). 1877. **B C**
- Schwerdtfeger, Otto M., M. D., 134 East 60th St., New York, N. Y. (60). **K**
- Scofield, Carl S., U. S. Department of Agriculture, Washington, D. C. (52). **G**
- Scott, Arthur William, Professor of Science, St. David's College, Lampeter, South Wales, England. (46). **A B**
- *Scott, Charles Felton, E. E., Westinghouse Electric and Manufacturing Co., Pittsburg, Pa. (48). 1900. **B**
- Scott, Charles Payson Gurley, Ph. D., 1 Madison Ave., New York, N. Y. (60). **E H I L**
- *Scott, Miss Charlotte Angas, Professor of Mathematics, Bryn Mawr, Pa. (60). 1910. **A**
- Scott, Frank J., Jr., 609 West 60th St., Chicago, Ill. (58). **C D**
- Scott, Frederick Hughes, Assistant Professor of Physiology, University of Minnesota, Minneapolis, Minn. (61). **K**
- Scott, George G., Instructor in Physiology and Zoology, College of the City of New York, New York, N. Y. (60). **F K**
- Scott, Col. H. L., Superintendent, U. S. Military Academy, West Point, N. Y. (60). **H**
- Scott, Irving D., Ann Arbor, Mich. (58). **C**
- Scott, John Walter, 36 John St., New York, N. Y. (57).
- Scott, John William, Ph. D., Instructor in Biology, Westport High School Kansas City, Mo. (58). **F**
- Scott, Walter Dill, Ph. D., Professor of Psychology, Northwestern University, Evanston, Ill. (58). **H**
- Scott, Prof. Wilfred Welday, Morningside College, Sioux City, Iowa. (58). **B C E**
- Scott, Will, Bloomington, Ind. (58). **F**
- *Scott, William M., U. S. Department of Agriculture, Washington, D. C. (50). 1906. **G**
- Scovel, Edward C., Rosebud, S. D. (52). **I L**

MEMBERS AND FELLOWS.

- *SCOVELL, MELVILLE AMASA, Director and Chemist, Agricultural Experiment Station, Lexington, Ky. (35). 1887. **C**
 Scribner, Charles Frederick, 12 Pierce St., Greenfield, Mass. (61). **D**
 Scribner, Gilbert Hilton, "Inglehurst," Yonkers, N. Y. (57).
 Scripture, Arthur M., Principal, High School, New Hartford, N. Y. (51).
- *SCUDDER, SAMUEL H., 156 Brattle St., Cambridge, Mass. (13). 1874. **F**
 Scull, Harry, 512 Traders Building, Chicago, Ill. (58). **I**
- *Scull, Miss Sarah A., Smethport, Pa. (40). 1895. **H**
 Scurlock, Herbert Clay, 428 College St., Washington, D. C. (58). **BCK**
 Seabrook, Harry Hartshorne, M. D., 118 East 72d St., New York, N. Y. (58). **K**
 Seager, Dan G., Box 57, Thebes, Ill. (60). **C**
- *Seal, Alfred Newlin, Ph. D., Professor of Chemistry and Physics, Girard College, Philadelphia, Pa. (50). 1909. **BC L**
- *Seaman, Arthur Edmund, Professor of Geology and Mineralogy, Michigan College of Mines, Houghton, Mich. (53). 1906. **E**
 Seaman, Emily Cromwell, Teachers College, Columbia University, 525 West 120th St., New York, N. Y. (58). **C**
 Seaman, Louis Livingston, M. D., 247 Fifth Ave., New York, N. Y. (58). **E K**
 Seares, Frederick Hanley, Superintendent, Computing Division, Solar Observatory Office, Pasadena, Cal. (58). **A**
- *Searle, Rev. George M., Paulist Fathers, 415 West 59th St., New York, N. Y. (39). 1891. **A**
 Sears, Henry Francis, M. D., Hale St., Beverly, Mass. (50). **K**
- *Seashore, Carl Emil, Dean, Graduate College, State University of Iowa, Iowa City, Iowa. (49). 1902. **HL**
 Seawell, Benjamin Lee, Teacher of Biology, State Normal School, Warrensburg, Mo. (50). **F**
 Sedgwick, Julius P., M. D., 2015 Kenwood Parkway, Minneapolis, Minn. (60). **K**
- *Sedgwick, William Thompson, Ph. D., Professor of Biology, Massachusetts Institute of Technology, Boston, Mass. (47). 1898. **KL**
 See, James W., M. E., Reutschler Building, Hamilton, Ohio. (51). **D**
- *See, Thomas Jefferson Jackson, Ph. D., Professor of Mathematics, U. S. N., Naval Observatory, Mare Island, Cal. (48). 1901. **A**
 Seeker, Albert F., 160 Midwood St., Brooklyn, N. Y. (60). **C**
- *Seelig, M. G., M. D., Humboldt Building, 537 North Grand Ave., St. Louis, Mo. (54). 1906. **K**
- *Seely, Henry Martyn, M. D., 3 South St., Middlebury, Vt. (58). 1910. **E**
- *Segerblom, Wilhelm, Professor of Chemistry, Phillips Exeter Academy, Exeter, N. H. (53). 1906. **CL**
 Seidell, Atherton, Ph. D., Hygienic Laboratory, 25th and E Sts. N. W., Washington, D. C. (58). **C**
 Seitz, Chas. E., 100 William St., New York, N. Y. (57).

MEMBERS AND FELLOWS.

- *Selby, Augustine Dawson, Ohio Agricultural Experiment Station, Wooster, Ohio. (44). 1900. **G**
- Selden, Andrew Kenneth, Jr., E. E., 82 West 5th St., Bayonne, N. J. (60). **D**
- Seldner, Rudolph, 1395 Dean St., Brooklyn, N. Y. (60). **C**
- Seligman, Isaac Newton, 1 William St., New York, N. Y. (49).
- *Sellards, Elias Howard, Ph. D., Florida State Geological Survey, Tallahassee, Fla. (54). 1906. **E**
- *Sellers, James Freeman, Professor of Chemistry, Mercer University, Macon, Ga. (50). 1906. **C**
- *Sellew, George Tucker, Ph. D., Professor of Mathematics, Knox College, Galesburg, Ill. (58). 1909. **A**
- Sellew, Timothy G., 462 Park St., Upper Montclair, N. J. (57).
- Sellman, William A. B., M. D., 5 East Biddle St., Baltimore, Md. (60). **K**
- Semple, Clarence Carleton, Bluefields, Nicaragua, C. A. (58). **DE**
- Senior, H. D., College of Medicine, Syracuse, N. Y. (58). **F**
- Sergel, Charles H., 4578 Oakenwald Ave., Chicago, Ill. (58).
- *Serviss, Garrett Putnam, 8 Middagh St., Brooklyn, N. Y. (52). 1906. **ABE**
- Sessinghaus, Gustavus, E. M., 915 Missouri Trust Building, St. Louis, Mo. (50). **E**
- Setz, C. F., Herculaneum, Mo. (60). **C**
- Sever, George Francis, Professor of Electrical Engineering, Columbia University, New York, N. Y. (49). **BD**
- Severin, Harry Charles, Professor of Entomology, South Dakota State College, Brookings, S. D. (61). **F**
- Sewell, John Stephen, C. E., Alabama Marble Co., Gantt's Quarry, Ala. (58). **D**
- Seyfert, Stanley S., E. E., Lehigh University, South Bethlehem, Pa. (60). **D**
- *Seymour, Paul Henry, Urbana University Schools, Urbana, Ohio. (44). 1896. **C**
- Seymour, Raymond Jesse, M. D., Assistant Professor of Physiology, Ohio State University, Columbus, Ohio. (60). **K**
- Shafer, George Daniel, Ph. D., Box 143, East Lansing, Mich. (58). **F**
- Shafer, John A., Custodian of the Museums, New York Botanical Garden, Bronx Park, New York, N. Y. (51). **G**
- Shaffer, Newton M., M. D., Surgeon in Chief, N. Y. State Hospital for Care of Crippled and Deformed Children, 28 East 38th St., New York, N. Y. (60). **K**
- Shaffer, Philip A., 414 East 26th St., New York, N. Y. (58). **K**
- Shambaugh, George E., M. D., 5317 Greenwood Ave., Chicago, Ill. (58). **K**
- *Shantz, Homer Le Roy, Ph. D., Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C. (50). 1904. **G**
- *Share, William Waldemar, Ph. D., Professor of Chemistry, Adelphi College, Brooklyn, N. Y. (57). 1910. **ABCDE L**

MEMBERS AND FELLOWS.

- Sharp, Charles Cutler, C. E., Nelsonville, Ohio. (50). **DE**
- *Sharp, Clayton Halsey, Ph. D., 118 Fisher Ave., White Plains, N. Y. (45). 1897. **BD**
- Sharp, Edward Affleck, M. D., 339 15th St., Buffalo, N. Y. (56). **KH**
- Sharpe, Richard W., 1121 Bedford Ave., Brooklyn, N. Y. (51). **F**
- Sharples, Philip Price, 22 Concord Ave., Cambridge, Mass. (47). **CI**
- *Sharples, Stephen Paschall, E. M., 26 Broad St., Boston, Mass. (29). 1884. **CEG**
- Sharwood, William J., Ph. D., care Homestake Mining Co., Lead, S. Dak. (58). **CDE**
- Shattuck, Charles H., Ph. D., Professor of Forestry, University of Idaho, Moscow, Idaho. (58). **G**
- *SHATTUCK, FREDERICK CHERON, M. D., Professor of Clinical Medicine, Harvard Medical School, Boston, Mass. (50). 1901. **FK**
- Shattuck, George Brune, M. D., 183 Beacon St., Boston, Mass. (54). **K**
- *Shattuck, George Burbank, Ph. D., Professor of Geology, Vassar College, Poughkeepsie, N. Y. (47). 1899. **E**
- Shattuck, Harold B., Associate Professor of R. R. Engineering, State College, Pa. (58). **D**
- *Shattuck, Samuel Walker, Professor of Mathematics, University of Illinois, Champaign, Ill. (50). 1902. **A**
- Shaw, Charles Frederick, State College, Pa. (58). **E**
- Shaw, Eugene Wesley, U. S. Geological Survey, Washington, D. C. (60). **E**
- Shaw, Harry B., Takoma Park, D. C. (61). **G**
- Shaw, Henry Clay, C. E., Glenshaw, Pa. (51). **D**
- Shaw, Henry Lyman, M. D., 19 Commonwealth Ave., Boston, Mass. (51). **K**
- *Shaw, James Byrnie, 1258 West Macon St., Decatur, Ill. (58). 1908. **A**
- Shaw, Mrs. John C., 317 Convent Ave., New York, N. Y. (57).
- Shaw, Louis Agassiz, 146 Brattle St., Cambridge, Mass. (60).
- Shaw, Reuben T., 2508 South Colorado St., Philadelphia, Pa. (60). **C**
- Shaw, Miss Susan Welles, 151 Commonwealth Ave., Boston, Mass. (60).
- *Shaw, Walter Robert, Ph. D., 163 Calle Real, Ermita, Manila, P. I. (47). 1902. **FG**
- Shaw, Wilson A., Cashier, Merchants and Manufacturers National Bank, Pittsburg, Pa. (50). **I**
- *Shea, Daniel William, Ph. D., Professor of Physics, Catholic University of America, Washington, D. C. (54). 1906. **B**
- SHEAFER, ARTHUR WHITCOMB, E. M., Pottsville, Pa. (28).
- *Shear, Cornelius Lott, Ph. D., U. S. Department of Agriculture, Washington, D. C. (49). 1901. **G**
- *Shearer, John Sanford, Professor of Physics, Cornell University, Ithaca, N. Y. (52). 1906. **B**
- *Shedd, John C., Ph. D., Olivet College, Olivet, Mich. (50). 1906. **AB**
- *Shedd, Solon, Professor of Geology, Washington State College, Pullman, Wash. (51). 1906. **E**

- Shedlock, Alfred, M. E., 45 Broadway, New York, N. Y. (57). **D**
- Sheffield, George St. John, Twin Elms Farm, Attleboro, Mass. (50). **I**
- Sheldon, Edmund P., 218 Commercial Club, Portland, Ore. (54). **G**
- Sheldon, Ernest Wilson, 569 Yale Station, New Haven, Conn. (60). **A**
- Sheldon, Frank A., 415 Newbury St., Boston, Mass. (58).
- Sheldon, Mrs. Jennie M. Arms, Deerfield, Mass. (44). **E F**
- *Sheldon, John Lewis, Ph. D., Professor of Botany and Bacteriology, West Virginia University, Morgantown, W. Va. (50). 1904. **G**
- Sheldon, Ralph Edward, Ph. D., University of Pittsburg Medical School, Pittsburg, Pa. (56). **F K**
- *Sheldon, Samuel, Ph. D., Professor of Physics and Electrical Engineering, Polytechnic Institute, Brooklyn, N. Y. (42). 1894. **BDL**
- Shelford, Victor Ernest, Ph. D., Associate in Zoology, University of Chicago, Chicago, Ill. (58). **F**
- Shelly, Edwin T., M. D., Atchison, Kans. (60). **K**
- Shenhon, Francis C., Dean, College of Engineering, University of Minnesota, Minneapolis, Minn. (61). **D**
- Shepard, Edward M., LL. D., 44 Pierrepont St., Brooklyn, N. Y. (57). **IL**
- Shepard, John Frederick, Ph. D., University of Michigan, Ann Arbor, Mich. (54). **HK**
- Shepard, Rev. William O., Ph. D., 6410 Stewart Ave., Chicago, Ill. (58).
- Shepardson, George Defrees, Professor of Electrical Engineering, University of Minnesota, Minneapolis, Minn. (60). **D**
- SHEPHERD, MISS ELIZABETH, 253 West 128th St., New York, N. Y. (39).
- Shepherd, Frank I., 302 Merchants Trust Co. Building, Los Angeles, Cal. (48). **CEK**
- Sheppard, George Quinton, Senior Master, The Hill School, Pottstown, Pa. (60). **A**
- Shepperd, John H., Box 35, Fargo, N. D. (54).
- Sherburne, Andrew E., M. D., 46 Brent St., Dorchester Center, Mass. (60). **K**
- Sherman, E. Amelia, M. D., R. F. D. No. 2, McGregor, Iowa. (58). **K**
- *Sherman, Henry Clapp, Ph. D., Instructor in Analytical Chemistry, Columbia University, New York, N. Y. (51). 1906. **CL**
- Sherman, Lewis, M. D., 448 Jackson St., Milwaukee, Wis. (50). **G K**
- Sherwood, George Herbert, Curator, Department of Public Instruction, American Museum of Natural History, New York, N. Y. (56). **F**
- *Sherzer, William Hittell, Ph. D., Professor of Geology, State Normal College, Ypsilanti, Mich. (58). 1908. **EHL**
- Shideler, Claude P., 320 West 4th St., Sedalia, Mo. (61). **F**
- Shidy, Leland Perry, U. S. Coast and Geodetic Survey, Washington, D. C. (52). **B G**
- *Shimek, Bohumil, Professor of Physiological Botany, State University of Iowa, Iowa City, Iowa. (52). 1904. **EG**
- *Shimer, Hervey Woodburn, Associate Professor of Geology, Massachusetts Institute of Technology, Boston, Mass. (53). 1909. **E**

MEMBERS AND FELLOWS.

- *Shimer, Porter William, E. M., Ph. D., Easton, Pa. (38). 1889. **C**
 Shingler, George Pinckney, Jr., Professor of Chemistry, Emory College,
 Oxford, Ga. (58). **C**
- *Shinn, Owen Louis, Assistant Professor of Chemistry, University of
 Pennsylvania, Philadelphia, Pa. (58). 1910. **C**
 Shiraiishi, Naoji, C. E., Mitsu Bishi Co., Kobe, Japan. (60). **D**
 Shoemaker, Mrs. Edward, 1031 North Calvert St., Baltimore, Md. (60).
 Shoemaker, Henry Wharton, 37-43 Wall St., New York, N. Y. (57). **E F**
 Shoemaker, Louis Henry, C. E., 1452 Frick Annex, Pittsburg, Pa. (60). **D**
 Shoemaker, S. M., Eccleston, Md. (60).
 Shoop, Charles Franklin, Experimental Engineering Department, Uni-
 versity of Minnesota, Minneapolis, Minn. (58). **A D**
 Shore, Albert Ferdinand, 557 West 22d St., New York, N. Y. (54). **D**
- *Short, Robert L., Technical High School, Cleveland, Ohio. (55). 1908.
A
 Shott, John A., Professor of Physics, Westminster College, New Wil-
 mington, Pa. (53). **B**
 Shoudy, William Allen, M. E., Stevens Institute of Technology, Hoboken,
 N. J. (60). **D**
 Shrawder, Joseph S., 21 East Bond St., Corry, Pa. (60). **C**
- *Shreve, Forrest, Ph. D., Desert Botanical Laboratory of the Carnegie
 Institution, Tucson, Ariz. (57). 1909. **G**
 Shreve, Randolph Norris, Chemist, 4477 Forest Park Boulevard, St.
 Louis, Mo. (58). **C**
 Shuler, Ellis W., Professor of Geology, Polytechnic College, Fort Worth,
 Tex. (60). **E**
 Shull, Aaron Franklin, Columbia University, New York, N. Y. (58). **F**
 Shull, Charles Albert, Professor of Biology, Transylvania University,
 Lexington, Ky. (58). **F G**
- *Shull, George Harrison, Ph. D., Cold Spring Harbor, Long Island, N. Y.
 (53). 1905. **G**
 Shultz, Charles S., Hoboken, N. J. (31). **F**
 Shurtleff, Eugene, M. D., College of Physicians and Surgeons, 517 Shaw-
 mut Ave., Boston, Mass. (52). **K**
- *Shute, Daniel Kerfoot, M. D., 1719 De Sales St. N. W., Washington, D. C.
 (50). 1906. **F I K**
- *Shutt, Frank Thomas, Dominion Experimental Farms, Ottawa, Canada.
 (47). 1898. **C**
- *Sias, Solomon, M. D., Schoharie, N. Y. (10). 1874. **K**
 Sickels, Ivin, M. D., College of the City of New York, New York, N. Y.
 (50). **F K**
 Sickenberger, Ernest F., M. D., Carlstadt, N. J. (60). **K**
 Sidener, Charles F., Professor of Chemistry, University of Minnesota,
 Minneapolis, Minn. (58). **C**
 Siebel, John E., Ph. D., Director, Zymotechnic Institute, 1424 Montana
 St., Chicago, Ill. (57). **B C D K**

- Sieberg, W. H. I., Hotel Winthrop, 125th St. and 7th Ave., New York N. Y. (57).
- Siedenburg, Frederic, S. J., Professor of Physics, St. Louis University, St. Louis, Mo. (53). **B L**
- Sievers, Hans H., M. D., Tama, Iowa. (60). **K**
- *Sigerfoos, Chas. Peter, Professor of Zoology, University of Minnesota, Minneapolis, Minn. (54). 1906. **F**
- *Sigsbee, Charles Dwight, Rear Admiral, U. S. N., Retired, Metropolitan Club, Washington, D. C. (28). 1882. **E**
- Silber, Frederick D., 5632 Washington Ave., Chicago, Ill. (58). **D**
- Silvester, Charles Frederick, Curator, Zoological Museum, Princeton University, Princeton, N. J. (54). **F**
- Silvester, Richard William, President, Maryland Agricultural College, College Park, Md. (50). **G**
- Silvestri, Hugo, Consul of Austria-Hungary, Room 816, 184 La Salle St., Chicago, Ill. (58). **I**
- Simes, Olive, 46 Chestnut St., Boston, Mass. (60).
- Simes, Mrs. William, 46 Chestnut St., Boston, Mass. (60).
- Simkhovitch, V. G., Ph. D., Supt. of Library, Columbia University, New York, N. Y. (54).
- Simmons, George H., M. D., LL. D., Secretary, American Medical Association, 103 Dearborn St., Chicago, Ill. (58). **K**
- *Simon, Charles E., M. D., 1302 Madison Ave., Baltimore, Md. (58). 1910. **K**
- *Simon, William, Ph. D., Catonsville, Md. (29). 1895. **C**
- *Simonds, Frederic William, Ph. D., Professor of Geology, University of Texas, Austin, Tex. (25). 1888. **E F**
- Simonds, Ossian Cole, C. E., 1101 Buene Ave., Chicago, Ill. (58). **G**
- Simons, Etoile B., Ph. D., Manual Training High School, Indianapolis, Ind. (57). **G**
- Simons, James E., M. D., Bay City, Tex. (60). **K**
- Simonson, William, 126 West 9th St., Cincinnati, Ohio. (57). **C**
- Simpson, Frank M., Bucknell University, Lewisburg, Pa. (58). **B**
- Simpson, J. A., M. D., 638 20th St., San Francisco, Cal. (60). **K**
- Simpson, Jesse Pickrell, M. D., Palmer, Ill. (51). **F H K**
- Simpson, John Crayke, M. D., 1421 Massachusetts Ave., Washington, D. C. (51). **H I K L**
- Simpson, Paul D., C. E., U. S. Reclamation Service, Guernsey, Wyo. (60). **D**
- Simpson, Quintus Irvin, Palmer, Ill. (54). **F K**
- Simpson, William Kelly, M. D., 952 Lexington Ave., New York, N. Y. (57). **K**
- Sims, Clough William, 2215 Caroline St., Houston, Texas. (58). **B C**
- Sinclair, Albert T., 37 North Beacon St., Allston, Boston, Mass. (58). **E H I L**
- Sinclair, Alexander Grant, M. D., LL. D., 126 North Court Ave., Memphis, Tenn. (52). **K**

MEMBERS AND FELLOWS.

- *Sinclair, Cephas Hempstone, U. S. Coast and Geodetic Survey, Washington, D. C. (52). 1908. **A**
- Sinclair, Mary Emily, Ph. D., Oberlin College, Oberlin, Ohio. (58). **A**
- Singer, George Park, Department of Natural Sciences, Central State Normal School, Lock Haven, Pa. (50). **A B C L**
- Singer, H. Douglas, M. D., Hospital, Ill. (60). **K**
- Sinnott, Edmund Ware, 24 Perkins Hall, Cambridge, Mass. (60). **G**
- Sisson, Septimus, Professor of Comparative Anatomy, Ohio State University, Columbus, Ohio. **H**
- Sjöström, Ivar L., C. E., Lawrence, Mass. (60). **D**
- Skelton, John E., Saltville, Va. (60). **C**
- Skiff, Frederick James Volney, Director, Field Museum of Natural History, Chicago, Ill. (43).
- *Skinner, Aaron Nichols, Professor of Mathematics, U. S. N., 506, The Alabama, Washington, D. C. (40). 1893. **A**
- *Skinner, Charles Edward, Engineering Department, Westinghouse Electric & Manufacturing Co., Pittsburg, Pa. (54). 1906. **D**
- *Skinner, Clarence A., Ph. D., University of Nebraska, Lincoln, Nebr. (48). 1903. **B**
- *Skinner, Ernest Brown, Ph. D., Associate Professor of Mathematics, University of Wisconsin, Madison, Wis. (58). 1909. **A**
- *Skinner, Henry, M. D., The Academy of Natural Sciences, Philadelphia, Pa. (47). 1902. **F G K L**
- Skinner, Stanbridge A., 434 Grant St., Redlands, Cal. (58). **C E F K**
- Skinner, William W., Bureau of Chemistry, U. S. Department of Agriculture, Washington, D. C. (60). **C**
- Slack, Henry R., M. D., La Grange, Georgia. (60). **K**
- Slade, Eliza, Somerset, Mass. (29). **F**
- *Slagle, Robert Lincoln, Ph. D., Brookings, S. D. (50). 1909. **C E**
- Slater, Florence Wells, 82 Barclay St., Flushing, L. I., N. Y. (60). **F**
- *Slaught, Herbert Ellsworth, Ph. D., Associate Professor of Mathematics, University of Chicago, Chicago, Ill. (58). 1908. **A**
- Sleeman, Herbert R., E. M., Whim Creek, West Australia. (60). **D**
- Slemons, J. Morris, M. D., 23 West Chase St., Baltimore, Md. (60). **K**
- *Slichter, Charles S., Professor of Applied Mathematics, University of Wisconsin, Madison, Wis. (51). 1902. **A**
- *Slipher, V. M., Lowell Observatory, Flagstaff, Ariz. (52). 1908. **A B**
- Sloan, Benson Bennett, 141 East 36th St., New York, N. Y. (57). **D**
- Sloan, Robert T., M. D., 407-408 Rialto Building, Kansas City, Mo. (60). **K**
- Slocum, Arthur Ware, Field Museum of Natural History, Chicago, Ill. (58). **E**
- Slocum, Miss Anna D., Pond St., Jamaica Plain, Mass. (61).
- Slocum, Chas. Elihu, Ph. D., M. D., Defiance, Ohio. (34). **E H**
- *Slocum, Frederick, Ph. D., Yerkes Observatory, Williams Bay, Wis. (47). 1906. **A**
- Slocum, Miss Laura, Pond St., Jamaica Plain, Mass. (61)

- Slonaker, J. Rollin, Ph. D., 334 Kingsley Ave., Palo Alto, Cal. (49). **F**
- *Slosson, Edwin Emery, Ph. D., Literary Editor, *The Independent*, 130 Fulton St., New York, N. Y. (50). 1901. **C**
- *Small, John Kunkel, Ph. D., New York Botanical Garden, Bedford Park, New York, N. Y. (44). 1902. **G**
- Smallwood, Miss Mabel Elizabeth, Lane Technical High School, Chicago, Ill. (52). **F G**
- *Smallwood, William Martin, Ph. D., Professor of Comparative Anatomy, Syracuse University, Syracuse, N. Y. (50). 1903. **E F**
- Smeaton, Wm. Gabb, 1114 Prospect St., Ann Arbor, Mich. (57). **C**
- Smersh, Francis M., M. D., Owatonna, Minn. (60). **K**
- Smillie, Thomas W., U. S. National Museum, Washington, D. C. (40). **F**
- Smith, Albert L., 9432 Howard Court, Chicago, Ill. (60). **C**
- *Smith, Albert William, Ph. D., Professor of Metallurgy, Case School of Applied Science, Cleveland, Ohio. (47). 1900. **C**
- *Smith, Alexander, Ph. D., Professor of Chemistry, University of Chicago, Chicago, Ill. (40). 1892. **C L**
- Smith, Alfred, Ring Place, Price Hill, Cincinnati, Ohio. (58). **C**
- Smith, Alice Maude, M. D., 709 North 2d St., Tacoma, Wash. (53).
H I K L
- *Smith, Allen John, M. D., Professor of Pathology, University of Pennsylvania, Philadelphia, Pa. (47). 1905. **H K**
- Smith, Mrs. Annie Morrill, 78 Orange St., Brooklyn, N. Y. (49). **G**
- *Smith, Arthur George, Professor of Physics and Mechanics, State University of Iowa, Iowa City, Iowa. (50). 1909. **A**
- *Smith, Arthur Whipple, Ph. D., Associate Professor of Mathematics, Colgate University, Hamilton, N. Y. (58). 1910. **A**
- *Smith, Arthur Whitmore, Ph. D., Associate Professor of Physics, University of Michigan, Ann Arbor, Mich. (44). 1906. **B**
- Smith, Bertram G., University of Wisconsin, Madison, Wis. (61). **F**
- Smith, Burnett, Ph. D., Skaneateles, N. Y. (54). **E F**
- Smith, Charles Dennison, M. D., Maine General Hospital, Portland, Me. (58). **F G K**
- *Smith, Charles Henry, 5406 Madison Ave., Chicago, Ill. (60). 1909. **A**
- *Smith, Charles J., Professor of Mathematics, Western Reserve University, Cleveland, Ohio. (32). 1885. **A B**
- Smith, Charles Marquis, Purdue University, Lafayette, Ind. (58). **B**
- Smith, Clara E., 85 Shafer Hall, Wellesley, Mass. (60). **A**
- Smith, Claude A., M. D., Chamber of Commerce Building, Atlanta, Ga. (58). **K**
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- *Smith, David Eugene, Ph. D., LL.D., Professor of Mathematics, Columbia University, New York, N. Y. (58). 1909. **A L**
- Smith, Delavan, Lake Forest, Ill. (60). **I**
- Smith, Dudley, M. D., 1571 7th Ave., Oakland, Cal. (60). **K**

- *Smith, Edgar F., Ph. D., Professor of Chemistry, University of Pennsylvania, Philadelphia, Pa. (33). 1891. **C E L**
- Smith, Edward Sanborn, M. D., 301 North Rawlins St., Macon, Mo. (58). **K**
- Smith, Elliot, Cincinnati Observatory, Cincinnati, Ohio. (58). **A**
- *Smith, Erastus Gilbert, Ph. D., Director, Beloit Sanitary Laboratory, Beloit, Wis. (34). 1887. **C**
- *Smith, Ernest Ellsworth, M. D., Ph. D., Professor of Physiology and Organic and Biological Chemistry, Fordham University School of Medicine, Fordham, N. Y. (43). 1898. **C F K**
- Smith, Ernest Reveley, Teacher of Physics, Syracuse High School, 106 Dell St., Syracuse, N. Y. (56). **B**
- Smith, Erwin F., U. S. Department of Agriculture, Washington, D. C. (34). 1890. **G**
- Smith, Eugene C. E., 317 Washington St., Hoboken, N. J. (50). **D E F**
- *Smith, Eugene Allen, Ph. D., State Geologist, University, Ala. (20). 1877. **C E**
- Smith, Eugene Randolph, Head of Mathematical Department, Polytechnic Preparatory School, Brooklyn, N. Y. (58). **A**
- Smith, F. G., Analytical Chemist, Mt. Pleasant, Tenn. (58). **C**
- Smith, Frances Grace, Ph. D., Department of Botany, Smith College, Northampton, Mass. (57). **G**
- *Smith, Prof. Francis Henry, U. S. Naval Hospital, Brooklyn, N. Y. (54). 1906. **A B**
- *Smith, Frank, Associate Professor of Zoology, University of Illinois, Urbana, Ill. (49). 1900. **F**
- Smith, Frank Clemes, E. M., Box 185, Richland Center, Wis. (60). **D**
- Smith, Franklin Orion, Woodbine, Iowa. (58). **H L**
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C
- Smith, Fred W., Department of Science, Northern Normal and Industrial School, Aberdeen, S. D. (54). **F G K**
- Smith, Frederic J., care Pierce Phosphate Company, Pierce, Fla. (58).
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C
- *Smith, George Otis, Ph. D., U. S. Geological Survey, Washington, D. C. (52). 1906. **E**
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- Smith, H. Carlton, Harvard Medical School, Boston, Mass. (56). **C**
- *Smith, Harlan I., Associate Curator of Anthropology, American Museum of Natural History, New York, N. Y. (41). 1896. **H**
- *Smith, Harold Babbitt, Professor of Electrical Engineering, Worcester Polytechnic Institute, Worcester, Mass. (43). 1898. **B D**
- Smith, Harry A., M. D., Delta, Colo. (60). **K**

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C
- *Smith, Hugh M., M. D., LL.D., Bureau of Fisheries, U. S. Department of Commerce and Labor, Washington, D. C. (52). 1906. **F K**
- Smith, Huron Herbert, Dendrologist, Field Museum of Natural History, Chicago, Ill. (56). **G**
- Smith, Isabel Seymour, Assistant Professor of Biology, Illinois College, Jacksonville, Ill. (60). **F**
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- Smith, J. Hammond, School of Engineering, University of Pittsburg, Pittsburg, Pa. (61). **A D**
- Smith, James Alnutt, 121 West 91st St., New York, N. Y. (60). **F**
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- SMITH, MISS JENNIE M., 260 Watson Boulevard, Pittsburg, Northside, Pa. (50). **A E F**
- Smith, Jesse L., Superintendent of Schools, Highland Park, Ill. (58).
- Smith, Jesse M., E. E., M. E., Room M-14, 220 Broadway, New York, N. Y. (58). **D**
- *Smith, John B., Ph. D., Professor of Entomology, Rutgers College, New Brunswick, N. J. (32). 1884. **F**
- Smith, Joseph Rowe, M. D., LL. D., Brigadier-General and Assistant Surgeon-General, U. S. A., 2135 Spruce St., Philadelphia, Pa. (43). **K**
- *Smith, Joseph Russell, Ph. D., Swarthmore, Pa. (58). 1910. **E I**
- Smith, Joseph T., M. D., The Cecil, Baltimore, Md. (60). **K**
- Smith, Lee H., M. D., President, Buffalo Society of Natural Science, 663 Main St., Buffalo, N. Y. (51). **H K**
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- Smith, Oberlin, C. E., M. E., Lochwood, Bridgeton, N. J. (58). **D**
- *Smith, Percy F., Ph. D., Professor of Mathematics, Sheffield Scientific School, New Haven, Conn. (58). 1909. **A**
- *Smith, Philip Sidney, Ph. D., U. S. Geological Survey, Washington, D. C. (47). 1909. **E**
- Smith, Preston, Teacher of Science, State Normal School, Fitchburg, Mass. (61). **L**
- *SMITH, Q. CINCINNATUS, M. D., 4148 Center St., San Diego, Cal. (26). 1881. **K**
- Smith, R. Manson, 4 East Biddle St., Baltimore, Md. (60).
- Smith, Ralph Ingram, 119 Hillsboro Ave., Raleigh, N. C. (54). **F**
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- Smith, S. Kedzie, C. E., Vintondale, Pa. (58). **D**
- Smith, Samuel George, D. D., LL. D., Professor of Sociology, University of Minnesota, Minneapolis, Minn. (60). **I**
- Smith, Sedgwick, Assistant in Geology, Harvard University, Cambridge, Mass. (61). **E**
- Smith, Stuart, care Marquette Cement Manufacturing Co., La Salle, Ill. (58). **B C**
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- Smith, Theodore W., 5406 South Park Ave., Chicago, Ill. (58).
- Smith, Thomas A., Professor of Mathematics and Physics, Beloit College, Beloit, Wis. (50). **A B**
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- Smith, Thur, Newark Valley, N. Y. (60). **E F G**
- Smith, W. Hinckle, Bryn Mawr, Pa. (54).
- *Smith, W. S. Tangier, Ph. D., University of Nevada, Reno, Nev. (50). 1906. **E**
- *Smith, Warren^v D., Chief, Division of Mines, Bureau of Science, Manila, P. I. (57). 1910. **E**
- *Smith, Warren Rufus, Ph. D., Instructor in Chemistry, Lewis Institute, Chicago, Ill (52). 1906. **C**
- SMITH, W. M. ALEXANDER, 412 Madison Ave., New York, N. Y. (57)
- *Smith, William Benjamin, Ph. D., Professor of Philosophy, Tulane University, New Orleans, La. (50). 1901. **A**
- Smith, William H., M. D., 377 Beacon St., Boston, Mass. (60). **K**
- Smith-Trumper, Jessie, M. D., 929 East 105th St., Cleveland, Ohio. (60). **K**
- *Smock, John Conover, Ph. D., Trenton, N. J. (23). 1879. **E**
- Smock, Ledru Pierson, M. D., 3330 Chestnut St., Philadelphia, Pa. (54). **K**
- Smoot, Edgar K., C. E., Dover Plains, N. Y. (61). **D**
- Smyser, Albert E., E. M., 437 North 7th St., Steubenville, Ohio. (60). **D**

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- *Smyth, Charles Henry, Jr., Ph. D., Professor of Geology, Princeton University, Princeton, N. J. (38). 1894. **E**
- Smyth, Ellison A., Jr., LL. D., Professor of Biology, Virginia Polytechnic Institute, Blacksburg, Va. (57). **FG**
- *Sneath, E. Hershey, Ph. D., LL. D., Professor of Philosophy, Yale University, New Haven, Conn. (51). 1902. **H**
- Snedaker, James Angus, E. M., 2209 East 13th Ave., Denver, Colo. (50). **D**
- Snedden, David, 300 Ford Building, Boston, Mass. (61). **L**
- Snell, John Ferguson, Macdonald College, Quebec, Canada. (58). **C**
- Snelling, Walter Otheman, Ph. D., U. S. Testing Station, 40th and Butler Sts., Pittsburg, Pa. (58). **CE**
- Sneve, Haldor, M. D., Lowry Arcade, St. Paul, Minn. (51). **K**
- *Snow, Benjamin W., Ph. D., 135 West Gilman St., Madison, Wis. (35). 1889. **B**
- Snow, Charles Carleton, 2319 18th St. N. W., Washington, D. C. (52). **A H I L**
- Snow, Elbridge Gerry, President, Home Insurance Co., 56 Cedar St., New York, N. Y. (57).
- Snow, Frederick W., E. M., Chino Copper Co., Santa Rita, N. M. (60). **D**
- Snow, Laetitia Morris, Ph. D., care Department of Botany, Wellesley College, Wellesley, Mass. (57). **G**
- Snow, Rachel Parker, 29 Russell Ave., Watertown, Mass. (61). **AF**
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- Snyder, Charles D., Ph. D., Instructor in Physiology, Johns Hopkins University, Baltimore, Md. (60). **K**
- Snyder, Fred. D., M. D., 10 Center St., Ashtabula, Ohio. (51). **EFHK**
- *Snyder, Harry, Professor of Agriculture, Chemistry and Soils, University of Minnesota, Minneapolis, Minn. (44). 1897. **C**
- *Snyder, Prof. Monroe B., Philadelphia Astronomical Observatory, Philadelphia, Pa. (24). 1882. **AB**
- *Snyder, Zachariah Xenophon, Ph. D., President, State Normal School, Greeley, Colo. (50). 1907. **F**
- *Solley, Fred. Palmer, M. D., 114 East 60th St., New York, N. Y. (57). 1908. **K**
- *Sollmann, Torald Hermann, M. D., Professor of Pharmacology and Materia Medica, Western Reserve University Medical College, Cleveland, Ohio. (52). 1906. **K**
- Sommer, Richard E. W., 1302 Wells St., Milwaukee, Wis. (60). **C**
- Sondern, Frederic E., M. D., 200 West 56th St., New York, N. Y. (57). **K**
- *Soper, George A., Ph. D., 391 West End Ave., New York, N. Y. (46). 1907. **K**
- *Soule, William, Ph. D., Mount Union College, Alliance, Ohio. (33). 1899. **BCE**
- Southall, James P. C., Professor of Physics, Alabama Polytechnic Institute, Auburn, Ala. (51). **B**

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- Southard, F. E., 240 Longwood Ave., Boston, Mass. (60).
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 Souvielle, Mathieu, M. D., Box 355, Jacksonville, Fla. (36). **B E F K**
 Souvielle, Mrs. Mathieu, Box 355, Jacksonville, Fla. (24). **A B F**
 Sowdon, Arthur J. C., 66 Beacon St., Boston, Mass. (60).
 Sowers, Zachariah T., M. D., 1707 Massachusetts Ave., Washington, D. C. (60). **K**
 *Spalding, Frederick Putnam, Professor of Civil Engineering, University of Missouri, Columbia, Mo. (46). 1899. **D**
 *Spalding, Volney Morgan, Ph. D., 420 East 4th St., Tucson, Ariz. (51). 1902. **G**
 Spangler, Harry Allen, M. D., Carlisle, Pa. (51). **K**
 Spaulding, Frank B., 324 Decatur St., Brooklyn, N. Y. (58). **A**
 *Spaulding, Perley, Ph. D., Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C. (52). 1909. **G**
 Spear, Gen. Ellis, 1601 Oak St., Washington, D. C. (52). **D**
 Spear, Philip Hichborn, C. E., Raritan, N. J. (60). **D**
 Speare, Alden T., 4 Hudson St., East Lynn, Mass. (61). **G**
 Speer, C. H., M. E., care Algoma Steel Co., Ltd., Sault Ste Marie, Canada. (58). **D**
 Spelman, James F., M. D., Box 634, Anaconda, Mont. (60). **K**
 *Spencer, Arthur Coe, U. S. Geological Survey, Washington, D. C. (52). 1905. **E**
 Spencer, Eugene Jaccard, E. E., 220 South Grand Ave., St. Louis, Mo. (58). **D**
 *Spencer, Joseph William, Ph. D., 2019 Hillyer Place, Washington, D. C. (28). 1882. **E**
 Spencer, Mrs. Lorillard, Chastellux, Newport, R. I. (57).
 Spencer, Miss Pauline W., 3421 Race St., Philadelphia, Pa. (61). **L**
 SPENZER, JOHN GEORGE, M. D., Ph. D., 716 Rose Building, Cleveland, Ohio. (37). 1895. **C K**
 Sperr, Frederick W., Professor of Civil and Mining Engineering, Michigan College of Mines, Houghton, Mich. (60). **D**
 Sperry, Elmer A., E. E., 100 Marlborough Road, Prospect Park, South, Brooklyn, N. Y. (51). **D**
 *Speyers, Clarence Livingston, 33 Magazine St., Cambridge, Mass. (50). 1901. **B C**
 Spicer, C. E., 100 Sherman St., Joliet, Ill. (58). **B**
 Spiker, W. C., C. E., 117 Forest Ave., Atlanta, Ga. (60). **D**
 *Spillman, Wm. Jasper, U. S. Department of Agriculture, Washington, D. C. (52). 1905. **F G**
 *Spinney, Louis Bevier, E. E., Professor of Physics, Iowa State College, Ames, Iowa. (42). 1897. **B D**
 *Spitzka, Edward Anthony, M. D., Professor of General Anatomy, Jefferson Medical College, Philadelphia, Pa. (54). 1906. **F H K**
 Spofford, Paul N., P. O. Box 1667, New York, N. Y. (36).

MEMBERS AND FELLOWS.

- Spohn, Arthur Edward, M. D., Corpus Christi, Tex. (50). **F K**
- Spooner, Chas. Stockman, Agricultural Experiment Station, Durham, N. H. (57). **F**
- Sprague, Francis R., M. D., 2576 Washington St., San Francisco, Cal. (60). **K**
- *Springer, Alfred, Ph. D., 312 East 2d St., Cincinnati, Ohio. (24). 1880.
C
- SPRINGER, HON. FRANK, East Las Vegas, N. M. (57).
- *Springsteen, Harry William, Ph. D., Assistant Professor of Physics, Western Reserve University, Cleveland, Ohio. (49). 1906. **A B**
- Sprong, Severn D., E. E., 34 Jefferson Ave., Brooklyn, N. Y. (60). **D**
- Spunar, Valentine M., M. E., E. E., 3536 Massachusetts Ave., Pittsburg, N. S., Pa. (60). **A**
- Squibb, Charles F., Bernardsville, N. J. (43).
- Squibb, Edward Hamilton, M. D., P. O. Box 760, Brooklyn, N. Y. (41).
F K
- *Squier, Major George Owen, Ph. D., Signal Corps, U. S. A., War Department, Washington, D. C. (54). 1906. **B**
- Stabler, Edward Lincoln, Ph. D., care U. S. Leather Company, 47 John St., New York, N. Y. (60). **A**
- Stabler, Laird J., 1122 West 30th St., Los Angeles, Cal. (60). **C**
- Stackpole, Miss Caroline E., Teachers College, Columbia University, New York, N. Y. (53). **F G L**
- Stafford, Prof. Orin F., Department of Chemistry, University of Oregon, Eugene, Oregon. (58). **C**
- *Stahley, George Diehl, M. D., Gettysburg, Pa. (47). 1907. **F G**
- Stair, Leslie Dalrymple, 92 Wadena St., Cleveland, Ohio. (52). **D G I**
- Stalknecht, A. C., 1015 Germania Ave., Saginaw, Mich. (60). **C**
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- Standley, Paul C., Assistant Curator, U. S. National Museum, Washington, D. C. (60). **G**
- Stange, Charles H., Professor of Veterinary Medicine and Surgery, Iowa State College, Ames, Iowa. (61). **K**
- Stanley, William, E. E., Great Barrington, Mass. (50). **D**
- Stantial, F. G., Everett, Mass. (61). **C**
- STANTON, FRANK McMILLAN, E. M., Agent of Atlantic, Baltic and Central Mining Cos., Atlantic Mine, Mich. (51). **D E**
- Stanton, John R., 15 William St., New York, N. Y. (49).
- Stanton, Robert Brewster, C. E., E. M., 66 Broadway, New York, N. Y. (51). **D**
- *Stanton, Timothy William, Ph. D., U. S. National Museum, Washington, D. C. (50). 1902. **E**
- Stanton, Wilbur D., C. E., Las Cascadas, Canal Zone, Panama. (60). **D**
- Starbuck, Edwin Diller, Ph. D., Professor of Philosophy, State University of Iowa, Iowa City, Iowa. (58). **H I L**
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MEMBERS AND FELLOWS.

- *Starr, Frederick, Ph. D., Professor of Anthropology, University of Chicago, Chicago, Ill. (36). 1892. **E H**
- *Starr, M. Allen, M. D., Professor of Nervous and Mental Diseases, Columbia University, New York, N. Y. (50). 1901. **K**
- Starrett, Milton Gerry, C. E., 223 East 17th St., New York, N. Y. (49).
D
- Stauffer, Clinton R., Ph. D., Assistant Professor of Geology, School of Mining, Queens University, Kingston, Canada. (57). **E**
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- Stearns, Guy Beckley, M. D., 119 West 82d St., New York, N. Y. (54)
I K
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- Stebbins, James H., Jr., 3 West 29th St., New York, N. Y. (60). **C**
- *Stebbins, Joel, Ph. D., Assistant Professor of Astronomy, University of Illinois, Urbana, Ill. (58). 1909. **A**
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- Steel, Alvin Arthur, Fayetteville, Ark. (58). **D E**
- Steel, Matthew, 713 Missouri Ave., Columbia, Mo. (58). **K**
- Steele, John M., M. D., Owings Mills, Md. (60). **K**
- Steele, Warren Merrill, Professor of Philosophy, Furman University, Greenville, S. C. (57). **K**
- Stensland, Halbert Severin, Professor of Pathology and Bacteriology, Syracuse University, Syracuse, N. Y. (58). **F K**
- Steer, Prof. Albert B., 115 2nd Ave., Niagara Falls, Ontario, Canada. (61). **H**
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- Steidtmann, Edward, Instructor in Geology and Mineralogy, University of Wisconsin, Madison, Wis. (61). **E**
- *Steiger, George, Chemical Laboratory, U. S. Geological Survey, Washington, D. C. (40). 1901. **B C E**
- Stein, John Bethune, M. D., 205 East 23d St., New York, N. Y. (57). **K**
- Stein, Simon Gerberich, M. D., Muscatine, Iowa. (43). **A K**
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- *Steinmetz, Charles Proteus, Ph. D., Consulting Engineer, General Electric Co., Schenectady, N. Y. (40). 1895. **B C D**
- Steinway, Fred T., 109 East 14th St., New York, N. Y. (56).
- *Stejneger, Leonhard, Curator of Department of Reptiles, U. S. National Museum, Washington, D. C. (40). 1892. **E F**.

- Stellwagen, Herbert P., 2048 East Fair Ave., St. Louis, Mo. (58). **A**
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- *Stephens, Roswell Powell, Ph. D., Adjunct Professor of Mathematics, University of Georgia, Athens, Ga. (57). 1909. **A**
- Stephens, Thomas Calderwood, Professor of Biology, Morningside College, Sioux City, Iowa. (57). **FK**
- *STEPHENS, W. HUDSON, Lowville, N. Y. (18). 1874. **EH**
- Stephenson, Edward B., 617 South Wright St., Champaign, Ill. (58). **B**
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- *Sternberg, George Miller, M. D., LL. D., Brigadier-General, U. S. A., Retired, 2005 Massachusetts Ave. N. W., Washington, D. C. (24). 1880. **K**
- Sternberger, Edwin, M. D., 43 East 60th St., New York, N. Y. (57). **K**
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- *Stevens, Frank Lincoln, Ph. D., Professor of Biology, College of Agriculture and Mechanic Arts, West Raleigh, N. C. (44). 1899. **G**
- Stevens, Frederick W., Department of Physics, Lake Forest University, Lake Forest, Ill. (50). **B**
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- *Stevens, James Stacy, LL. D., Professor of Physics, University of Maine, Orono, Me (48). 1900. **B**

MEMBERS AND FELLOWS.

- *Stevens, Nettie Maria, Ph. D., Associate in Experimental Morphology, Bryn Mawr College, Bryn Mawr, Pa. (54). 1909. **F G K**
- Stevens, Oscar Edgerton, E. E., 45 Broadway, New York, N. Y. (58). **D**
- Stevens, Miss Romiett, Teachers College, Columbia University, New York, N. Y. (54). **H L**
- *Stevens, Walter LeConte, Ph. D., Professor of Physics, Washington and Lee University, Lexington, Va. (29). 1882. **A B L**
- Stevenson, Francis Leslie, 234 Michigan Ave., Chicago, Ill. (47). **B D I**
- *Stevenson, John James, Ph. D., LL. D., 568 West End Ave., New York, N. Y. (36). 1888. **E**
- *Stevenson, Mrs. Matilda Coxe, (41). 1893. **H**
- Stevenson, Robert, Jr., Winnetka, Ill. (58).
- Stevenson, Wm. H., Professor of Soils, Iowa State College, Ames, Iowa. (55). **C**
- Stewart, Alban, Assistant Botanist, New Hampshire College, Durham, N. H. (60). **G**
- Stewart, Alonzo Hamilton, M. D., Assistant Bacteriologist, Bureau of Health, City Hall, Philadelphia, Pa. (54). **K**
- *Stewart, Colin Campbell, Ph. D., Professor of Physiology, Dartmouth College, Hanover, N. H. (54). 1906. **K**
- Stewart, Douglas, Assistant to Director, Carnegie Museum, Pittsburg, Pa. (50). **E**
- Stewart, Francis Laird, Murrysville, Pa. (51). **G**
- *Stewart, Fred. Carlton, Botanist, New York Agricultural Experiment Station, Geneva, N. Y. (44). 1901. **G**
- *Stewart, George Walter, Professor of Physics, State University of Iowa, Iowa City, Iowa. (52). 1906. **B**
- Stewart, James L., M. D., Boise, Idaho. (60). **K**
- *Stewart, Louis B., Professor of Surveying and Geodesy, University of Toronto, Toronto, Canada. (57). 1909. **A**
- *Stewart, Oscar Milton, Ph. D., Professor of Physics, University of Missouri, Columbia, Mo. (46). 1900. **B**
- *Stewart, R. M., Dominion Observatory, Ottawa, Canada. (61). 1910. **A**
- Stewart, Robert, Ph. D., Agric. Experiment Station, Logan, Utah. (61). **G**
- Stewart, Robert W., M. D., Ortiz Building, Cincinnati, Ohio. (51). **K L**
- Stewart, Wm. R., 31 Nassau St., New York, N. Y. (57).
- Sticht, Robert C., E. M., General Manager, Mt. Lyell Mining and Ry. Co., Ltd., Queenstown, Tasmania, Australia. (60). **D**
- *Stickney, Gardner P., 864 Summit Ave., Milwaukee, Wis. (44). 1901
- H I**
- Stickney, Malcolm Enos, Assistant Professor of Botany, Denison University, Granville, Ohio. (53). **G**
- Stidham, Harrison, C. E., 3401 Newark St., Washington, D. C. (60). **D**
- *Stieglitz, Julius, Ph. D., Director, Laboratories of Analytical Chemistry, University of Chicago, Chicago, Ill. (39). 1895. **C**

MEMBERS AND FELLOWS.

- Stigall, Bennett Merriman, Professor of Biology and Nature Study, State Normal School, Warrensburg, Mo. (53). **F G**
- *Stiles, Charles Wardell, Ph. D., Hygienic Laboratory, U. S. Public Health and Marine Hospital Service, Washington, D. C. (40). 1892. **F L**
- Stiles, George W., Jr., M. D., 4820 Iowa Ave., Washington, D. C. (58). **K**
- Stiles, Harold M., 1023 Ayars Place, Evanston, Ill. (58). **B**
- Stiles, L. C., M. D., Austinburg, Ohio. (60). **K**
- Still, George Anderson, M. D., care A. S. O. Hospital, Kirksville, Mo. (50). **C K**
- Stillhamer, Arthur G., 705 North East St., Bloomington, Ill. (50). **A B C D**
- Stilman, Charles C., M. D., Morganville, Kansas. (60). **K**
- Stillman, Ernest Goodrich, 9 East 72d St., New York, N. Y. (57). **E F K**
- Stillman, John Maxson, Ph. D., Professor of Chemistry, Leland Stanford Junior University, Stanford University, California. (41). **C**
- Stillman, Wm. Olin, M. D., 287 State St., Albany, N. Y. (28). **I K**
- Stillwell, Albert G., 36 Gold St., New York, N. Y. (57). **C**
- *Stillwell, Lewis Buckley, E. E., 100 Broadway, New York, N. Y. (50). 1906. **C D**
- Stimpson, Edwin Fiske, Assistant Professor of Physics and Electrical Engineering, University of Kansas, Lawrence, Kan. (60). **B D**
- *Stine, Wilbur Morris, Ph. D., Professor of Engineering, Swarthmore College, Swarthmore, Pa. (37). 1900. **B C D**
- *Stockard, Chas. Rupert, Ph. D., Assistant Professor of Embryology and Experimental Morphology, Cornell University Medical College, New York, N. Y. (52). 1909. **F**
- *Stockberger, Warner W., Ph. D., Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C. (58). 1909. **G**
- *Stockton, Charles G., M. D., 436 Franklin St., Buffalo, N. Y. (51). 1906. **K**
- *Stockwell, John Nelson, Ph. D., 2384 East 40th St., Cleveland, Ohio. (18). 1875. **A**
- Stoddard, George Howland, M. E., 197 Beacon St., Boston, Mass. (51). **A B C D**
- Stoddart, Chas. William, Assistant Professor of Soils, State College, Pa. (58). **C**
- STOECKEL, CARL, Norfolk, Conn. (52). **A E**
- Stoeffel, Paul X., E. M., care Cia Minera de Peñoles, S. A., Mapimi, Durango, Mexico. (58). **D**
- Stoelting, C. William, M. D., 813 Main St., Oconto, Wis. (60). **K**
- *Stokes, Anson Phelps, 100 William St., New York, N. Y. (50). 1905. **I**
- *Stokes, Henry Newlin, Ph. D., Bureau of Standards, Washington, D. C. (38). 1891. **C E**
- Stokes, J. G. Phelps, M. D., Caritas Island, Stamford, Conn. (58). **I L**
- Stokes, James Stephen, 1220 East Normal Ave., Kirksville, Mo. (58). **B E**

MEMBERS AND FELLOWS.

- Stolz, Rabbi Joseph, D.D., 4827 Langley Ave., Chicago, Ill. (58).
- *Stone, Alfred Holt, Dunleith, Miss. (51). 1905. **H I**
- Stone, Charles A., E. E., 147 Milk St., Boston, Mass. (60). **D**
- Stone, Edgar D., E. M., Boma, Tenn. (60). **D**
- *Stone, George Edward, Ph. D., Professor of Vegetable Pathology and Physiology, Massachusetts Agricultural College, Amherst, Mass. (48). 1902. **G**
- Stone, I. F., 100 William St., New York, N. Y. (57).
- *Stone, Miss Isabelle, Ph. D., 3352 Indiana Ave., Chicago, Ill. (50). 1906. **B**
- *Stone, John S., 192 Bay State Road, Boston, Mass. (54). 1906. **B**
- Stone, Julius F., Columbus, Ohio. (48).
- Stone, Lincoln R., M. D., 131 Vernon St., Newton, Mass. (31). **H K**
- *Stone, Ormond, Professor of Practical Astronomy, University of Virginia Charlottesville, Va. (24). 1876. **A L**
- Stone, Ralph Walter, U. S. Geological Survey, Washington, D. C. (57). **E**
- Stone, Roland Elisha, 130 Dryden Road, Ithaca, N. Y. (58). **G**
- *Stookey, Lyman Brumbaugh, Ph. D., Professor of Physiology and Physiological Chemistry, University of Southern California, Los Angeles, Cal. (53). 1906. **K**
- Storer, John H., 16 State St., Boston, Mass. (60).
- *Storey, Thomas Andrew, Ph. D., M. D., Associate Professor of Physical Instruction College of the City of New York, New York, N. Y. (52). 1906. **K**
- Storms, Albert Boynton, D.D., L.L.D., President, Iowa State College, Ames, Iowa. (54). **I**
- Storrs, Frederick W., Canton, N. Y. (60). **C**
- Storrs, Lucius Seymour, Springfield, Mass. (51). **D E**
- *Story, Wm. Edward, Ph. D., Professor of Mathematics, Clark University, Worcester, Mass. (29). 1881. **A**
- *Stose, George Willis, U. S. Geological Survey, Washington, D. C. (52). 1909. **E**
- Stover, Clyde B., Gettysburg, Pa. (58). **C**
- *Stradling, George F., Ph. D., 5120 Newhall St., Philadelphia, Pa. (41). 1900. **B L**
- Strain, Earle, M. D., Great Falls, Mont. (60). **K**
- Stramler, A. P., Assayer, Chitas Mining Co., Stephenville, Texas. (56). **C**
- Strange, William R., 1643 Octavia St., New Orleans, La. (55). **K**
- Strasser, August Adrian, M. D., 115 Beech St., Arlington, N. J. (60). **K**
- Stratton, George W., 230 West 9th Ave., Columbus, Ohio. (60). **C**
- Strauss, Frederick, 1 William St., New York, N. Y. (57).
- Strauss, Joseph, U. S. N., Commander, U. S. S. Montgomery, care Postmaster, New York, N. Y. (54). **D**
- Strayer, George Drayton, Teachers College, Columbia University, New York, N. Y. (61). **L**
- Street, Prof. Jacob R., Syracuse University, Syracuse, N. Y. (58). **L**

- Streeter, George L., M. D., Ann Arbor, Mich. (58). **K**
- Streeter, Miss Stella G., 210 Sip Ave., Jersey City, N. J. (54). **G**
- Strickler, Gratz Brown, C. E., Havana, Cuba. (60). **D**
- Strobel, Charles Louis, C. E., 1230 North State St., Chicago, Ill. (60). **D**
- Stromsten, Frank Albert, Instructor in Animal Biology, State University of Iowa, Iowa City, Iowa. (52). **F**
- Strong, Archibald McClure, C. E., Bishop, Cal. (60). **D**
- Strong, Edwin Atson, Department of Physics and Chemistry, State Normal School, Ypsilanti, Mich. (46). **B L**
- Strong, Frederick Finch, M. D., 250 3rd Ave., N., St. Petersburg, Fla. (47). **B C K**
- Strong, Frederick G., E. E., Box 959, Hartford, Conn. (50). **D**
- Strong, James Boorman, C. E., Hillburn, N. Y. (60). **D**
- *Strong, Oliver S., College of Physicians and Surgeons, 437 West 59th St., New York, N. Y. (52). 1903. **K**
- *Strong, Reuben Myron, Ph. D., Instructor in Zoology, University of Chicago, Chicago, Ill. (51). 1906. **F**
- Strong, Richard P., Bureau of Science, Manila, P. I. (55). **F**
- Strong, Sylvester Emory, M. D., 88 Circular St., Saratoga Springs, N. Y. (60). **K**
- *Strong, Wendell M., care Mutual Life Ins. Co., 32 Nassau St., New York, N. Y. (44). 1899. **A B**
- *Strong, William Walker, Ph. D., Assistant in Chemistry, Johns Hopkins University, Baltimore, Md. (54). 1909. **B C**
- Stuart, Francis Lee, C. E., Essex Fells, N. J. (60). **D**
- Stuart, Percy Ernest, M. D., Nashua, Iowa. (58). **H I K L**
- Stuart, William, 119 V St., N. W., Washington, D. C. (52). **G**
- *Stubbs, Joseph Edward, President, University of Nevada, Reno, Nev. (54). 1909.
- *Stubbs, William Carter, Ph. D., 1033 Carondelet St., New Orleans, La. (40). 1901. **F**
- Stump, Horace E., 5336 Cornell Ave., Chicago, Ill. (61). **C**
- *Sturgis, Wm. Codman, Ph. D., P. O. Box 636, Colorado Springs, Colo. (40). 1892. **G**
- Sturtevant, Edward, Teacher of Science, St. George's School, Newport, R. I. (57).
- Sugg, J. F. H., 307-8 Howes Block, Clinton, Iowa. (58).
- Sullivan, Alan, care The Gutta Percha and Rubber Manufacturing Co., Toronto, Ontario, Canada. (58). **D**
- Sullivan, John Magruder, Ph. D., Professor of Chemistry, Millsaps College, Jackson, Miss. (56). **C E**
- Sullivan, M., M. D., Adrian, Minn. (60). **K**
- *Sullivan, Michael Xavier, Ph. D., Bureau of Soils, U. S. Dept. Agriculture, Washington, D. C. (55). 1907. **C K L**
- Sulzer, Gustav A., M. D., 237 East State St., Columbus, Ohio. (60). **K**
- Summa, Hugo, M. D., Professor of Medicine, St. Louis University, St. Louis, Mo. (53). **K**

MEMBERS AND FELLOWS.

- *Summers, Henry Elijah, Professor of Zoology, Iowa State College, Ames, Iowa. (50). 1906. **F**
- *Sumner, Francis Bertody, Ph. D., Director, U. S. Fisheries Laboratory, Woods Hole, Mass. (51). 1906. **F**
Sumner, George S., Claremont, Cal. (60). **I**
- Sumstine, Prof. David Ross, Principal, Turtle Creek School, Wilksburg, Pa. (58). **G**
- Sundberg, John C., M. D., 311-312 Eitel Building, Seattle, Wash. (60). **K**
- Suppan, Leo, 2648 Russell Ave., St. Louis, Mo. (60). **C**
- *Surface, Frank Macy, Ph. D., Maine Agricultural Experiment Station, Orono, Me. (53). 1910. **F**
- *Surface, Harvey Adam, State Zoologist of Pennsylvania, Harrisburg, Pa. (50). 1906. **F**
- Sutton, Frank, C. E., U. S. Geological Survey, Washington, D. C. (60).
D E
- Sutton, John Edward, M. D., Albion, N. Y. (60). **K**
- *Sutton, William John, Geologist, Esquimalt and Nanaimo Railway Co., 749 Discovery St., Victoria, B. C. (50). 1906. **E**
- Sutton, William Seneca, LL. D., Professor of Education, University of Texas, Austin, Tex. (58). **L**
- *Suzzallo, Henry, Ph. D., Professor of Education, Teachers College, Columbia University, New York, N. Y. (58). 1910. **H L**
- *Swain, George Fillmore, LL. D., Professor of Civil Engineering, Graduate School of Applied Science, Harvard University, Cambridge, Mass. (52). 1906. **D**
- Swain, Henry L., M. D., 232 York St., New Haven, Conn. (60). **K**
- *Swain, Joseph, LL. D., President, Swarthmore College, Swarthmore, Pa. (54). 1910. **A**
- Swain, Robert E., 638 Channing Ave., Palo Alto, Cal. (60). **C**
- Swaine, James Malcolm, Macdonald College, Quebec, Canada. (58). **F K**
- Swan, John N., Ph. D., Professor of Chemistry, Monmouth College, Monmouth, Ill. (58). **C L**
- *Swanton, John Reed, Ph. D., Bureau of American Ethnology, Smithsonian Institution, Washington, D. C. (58). 1910. **A**
- Swartz, Mary Davies, Ph. D., Department of Nutrition, Teachers College, Columbia University, New York, N. Y. (60). **C**
- *Swartzel, Karl Dale, Professor of Mathematics, Ohio State University, Columbus, Ohio. (48). 1906. **A D L**
- Sweet, Henry N., E. M., 63 Mt. Vernon St., Boston, Mass. (58). **D**
- Swenson, Carl G., M. D., 704 Fullerton Ave., Chicago, Ill. (58). **I**
- *Swenson, Emil, C. E., 5511 Hays St., Pittsburg, Pa. (51) 1906. **D**
- Swett, George W., 30 Eng. A., Massachusetts Institute of Technology, Boston, Mass. (60). **D**
- Swett, Otis Dow, 731 15th St. N. W., Washington, D. C. (60). **C**
- Swift, Edgar James, Washington University, St. Louis, Mo. (60). **H**
- Swift, Fletcher Harper, Ph. D., Professor of Education, University of Minnesota, Minneapolis, Minn. (58). **H L**

- Swift, Leroy F., Science Master, The Albany Academy, Albany, N. Y. (61). **L**
- *Swingle, Walter T., U. S. Department of Agriculture, Washington, D. C. (40). 1892. **G**
- Switzer, George H., E. E., Bath, N. Y. (60). **D**
- Sykes, Mabel, 1223 East 57th St., Chicago, Ill. (60). **A L**
- Sylvester, Albert H., Forest Supervisor, U. S. F. S., Leavenworth, Wash. (57). **E**
- *Symons, Thomas Baddeley, State Entomologist, College Park, Md. (54). 1906. **F**
- Syms, Parker, M. D., 540 Park Ave., New York, N. Y. (61). **K**
- Taber, G. Major, Secretary, Geological Section, Southern California Academy of Sciences, Los Angeles, Cal. (51). **E**
- *Taff, Joseph Alexander, Palo Alto, Cal. (54). 1906. **E**
- TAFT, ELIHU BARBER, Burlington, Vt. (36). **H**
- Taft, Lorado, 1038 Fine Arts Building, Chicago, Ill. (58).
- Taggart, Rush, 319 West 75th St., New York, N. Y. (49).
- *Tainter, Charles Sumner, 1542 Robinson Ave., San Diego, Cal. (29). 1881. **A B D**
- Tainter, Frank Stone, C. E., Far Hills, N. J. (51). **D**
- Takahashi, Katashi, Tokyo, Japan.
- *Takamine, Jokichi, 550 West 173d St., New York, N. Y. (57). 1908. **C**
- *Talbot, Arthur Newell, C. E., Professor of Municipal and Sanitary Engineering, University of Illinois, Urbana, Ill. (51). 1906. **D**
- Talbot, D. H., Sioux City, Iowa. (58).
- Talbot, Eugene Solomon, D. D. S., 103 State St., Chicago, Ill. (54).
- *Talbot, Henry Paul, Ph. D., Professor of Inorganic and Analytical Chemistry, Massachusetts Institute of Technology, Boston, Mass. (44). 1896. **C L**
- *Talbot Marion, Ph. D., LL. D., Professor of Sociology, University of Chicago, Chicago, Ill. (54). 1910. **C K**
- *Talbot, Miss Mignon, Ph. D., Professor of Geology, Mount Holyoke College, South Hadley, Mass. (51). 1906. **E**
- Talbot, Mrs. Laura Osborne, 1445 Fairmount St., N. W., Washington, D. C. (36). **F G I**
- Tallman, Paul Bertram, C. E., Houston Union Terminal, cor. Crawford and Texas Aves., Houston, Tex. (60). **D**
- *TALMAGE, JAMES EDWARD, Ph. D., Professor of Geology, University of Utah, Salt Lake City, Utah. (50). 1906. **E**
- Taltavall, Wm. Allan, M. D., 126 Cajou St., Redlands, Cal. (57). **K**
- *TANNER, JOHN HENRY, Professor of Mathematics, Cornell University, Ithaca, N. Y. (47). 1899. **A B**
- Tanquary, Maurice Cole, University of Illinois, Urbana, Ill. (60). **F**
- *TARR, RALPH STOCKMAN, Professor of Physical Geography, Cornell University, Ithaca, N. Y. (49). 1901. **I**
- Tasker, Arthur N., M. D., care Surgeon-General, U. S. A., Washington, D. C. (57). **C F K**

MEMBERS AND FELLOWS.

- *Tatlock, John, 376 West End Ave., New York, N. Y. (50). 1902. **A**
- *Tatnall, Robert Richardson, Ph. D., Assistant Professor of Physics, Northwestern University, Evanston, Ill. (58). 1909. **B**
- Taussig, James, 928 Rialto Building, St. Louis, Mo. (50). **I**
- Taverner, William, Ashland, Ore. (56). **A B C**
- Tawney, Guy Allen, Ph. D., University of Cincinnati, Cincinnati, Ohio. (58). **H**
- Taylor, Miss Alexandrina, (57).
- Taylor, Arthur W., care Y. M. C. A., Salem, Mass. (61). **B C**
- Taylor, C. Marshall, Box 217, Texarkana, Tex. (60). **C**
- Taylor, Charles E., Drawer M., Penn Yan, N. Y. (54). **C**
- *Taylor, Edson Homer, Teacher of Mathematics, Eastern Illinois State Normal School, Charleston, Ill. (53). 1906. **A L**
- Taylor, Edward B., Third Vice-President, Pennsylvania Lines, 901 Union Station, Pittsburg, Pa. (50). **D**
- *Taylor, Edward Randolph, Penn Yan, N. Y. (39). 1904. **C**
- *Taylor, Edward Wyllys, M. D., Instructor in Neuropathology, Harvard Medical School, Boston, Mass. (50). 1902. **K**
- Taylor, Estes Park, State Fruit Experiment Station, Mountain Grove, Mo. (57). **F**
- Taylor, Ewing, M. D., 19 Arden Place, Yonkers, N. Y. (58). **I K L**
- *Taylor, Frank Bursley, 548 Home Ave., Fort Wayne, Ind. (39). 1897. **A E**
- Taylor, Frederic W., M. D., 1735 Massachusetts Ave., Cambridge, Mass. (60). **K**
- Taylor, Frederick W., M. E., Highland Ave., Chestnut Hill, Philadelphia, Pa. (60). **D**
- Taylor, Frederick W., Professor of Agriculture, New Hampshire College, Durham, N. H. (60). **G**
- Taylor, George W., Biological Station, Nanaimo, B. C., Canada. (60). **F**
- Taylor, Henry W., Chief Engineer, House of Representatives, 100 5th St. N. E., Washington, D. C. (52). **D**
- Taylor, Howard F., C. E., 800 Brighton Ave., Kansas City, Mo. (58). **D**
- Taylor, J. Erskine, M. D., Rockland, Pa. (51). **K**
- Taylor, James, State Inspector of Mines, Peoria, Ill. (56). **D**
- Taylor, James, Jr., M. D., 49 Pearl St., Worcester, Mass. (60). **K**
- Taylor, James Landon, M. D., care Dr. Wesley Taylor, 723 Empire Building, Atlanta, Ga. (51). **I K**
- *Taylor, James Morford, LL. D., Professor of Mathematics, Colgate University, Hamilton, N. Y. (33). 1901. **A D**
- Taylor, James Townsend, C. E., P. O. Box 799, Honolulu, Hawaii. (60). **D**
- Taylor, John B., General Electric Company, Schenectady, N. Y. (60). **A B D**
- Taylor, John J., M. D., Editor, *Medical Council*, 4105 Walnut St., Philadelphia, Pa. (61). **K**
- Taylor, Joseph S., 2275 Loring Place, Bronx, New York, N. Y. (61). **L**

MEMBERS AND FELLOWS.

- Taylor, Julius H., M. D., 1409 Plain St., Columbia, S. C. (60). **K**
 Taylor, Robert Stewart, 2905 Fairfield Ave., Fort Wayne, Ind. (39).
 Taylor, Samuel A., C. E., 804 Lewis Block, Pittsburg, Pa. (58). **D**
 Taylor, Samuel Newton, Ph. D., Professor of Electrical Engineering,
 University of Cincinnati, Cincinnati, Ohio. (58). **B D**
 Taylor, W. T.,(60).
 Taylor, Wm. Alton, U. S. Department of Agriculture, Washington, D. C.
 (52). **G**
 Tays, Eugene Augustus Hoffman, E. M., San Blas, Sinaloa, Mexico.
 (50). **D E H**
 Teas, William H., General Superintendent, U. S. Leather Company,
 Ridgway, Pa. (58). **C**
 Teel, Ambrose W., M. D., Kahoka, Mo. (60). **K**
 *Teepel, John Edgar, Ph. D., Consulting Chemist, 50 Church St., New
 York, N. Y. (57). 1909. **C**
 Teeters, Wilber John, State University of Iowa, Iowa City, Iowa (50).
C
 Temple, James Clarence, Georgia Experiment Station, Experiment, Ga.
 (61). **K**
 Templin, Olin, Professor of Philosophy, University of Kansas, Lawrence,
 Kans. (58).
 Tenney, Arthur J., M. D., Branford, Conn. (60). **K**
 Tepper, John Godlove Otto, Somerset Place, Norwood, South Australia.
 (58). **E F G**
 *Terry, Benjamin Taylor, M. D., Rockefeller Institute for Medical Re-
 search, Ave. A and 66th St., New York, N. Y. (54). 1907. **F K**
 Terry, Frank W., P. O. Box 411, Honolulu, Hawaii. (58). **F**
 Terry, Howard L., Inspector, State High School, Madison, Wis. (61).
 *Terry, Robert James, 1806 Locust St., St. Louis, Mo. (53). 1906. **K**
 Teschan, Rudolf C., M. D., 343 National Ave., Milwaukee, Wis. (58). **K**
 *Tesla, Nikola, E. E., 55 West 27th St., New York, N. Y. (43). 1895. **B**
 Test, Louis Agassiz, Ph. D., School of Mines, Rolla, Mo. (58). **C F**
 Thacher, Cornelius S., 354 Clifton Ave., Newark, N. J. (60). **A**
 *Thacher, John Seymour, M. D., 20 West 50th St., New York, N. Y.
 (57). 1908. **K**
 Thatcher, Roscoe Wilfred, 311 Montgomery St., Pullman, Wash. (58). **C**
 THAW, BENJAMIN, 316 Fourth Ave., Pittsburg, Pa. (50). **A D**
 THAW, STEPHEN D., 1046 Fifth Ave., New York, N. Y. (60). **A**
 Thaw, Mrs. William, Box 1086, Pittsburg, Pa. (41). **H**
 *Thaxter, Roland, Ph. D., Professor of Cryptogamic Botany, Harvard
 University, Cambridge, Mass. (50). 1901. **G**
 Thayer, Warren N., Central School, Norwood, Ohio. (60). **C**
 *Thayer, William Sydney, M. D., LL.D., Professor of Clinical Medicine,
 Washington College, Johns Hopkins University, Baltimore, Md. (52).
 1903. **K**
 Theilman, Louis, Bonne Terre, Mo. (58).
 Thiessen, Alfred Henry, Mount Weather, Bluemont, Va. (51). **B**

MEMBERS AND FELLOWS.

- Theissen, Dr. Reinhardt, U. S. National Museum, Washington, D. C. (60). **E G**
- Thelberg, Elizabeth B., M. D., Resident Physician and Professor of Physiology and Hygiene, Vassar College, Poughkeepsie, N. Y. (50).
H I K L
- *Thom, Charles, Ph. D., Agricultural Experiment Station, Storrs, Conn. (50). 1901. **G**
- Thomas, Arthur H., 1200 Walnut St., Philadelphia, Pa. (58).
- *Thomas, Benjamin Franklin, Ph. D., Professor of Physics, Ohio State University, Columbus, Ohio. (29). 1882. **A B**
- Thomas, Calvin, Professor of Germanic Languages and Literatures, Columbia University, New York, N. Y. (60). **L**
- Thomas, Eb W., M. D., 1833 Chestnut St., Philadelphia, Pa. (60). **K**
- Thomas, Elmer L., 31 Nassau St., New York, N. Y. (60). **C**
- Thomas, Evan, Professor of Mathematics, University of Vermont, Burlington, Vt. (60). **A**
- Thomas, Henry M., M. D., 1228 Madison Ave., Baltimore, Md. (60). **K**
- Thomas, J. Bosley, 920 North Carrollton Ave., Baltimore, Md. (60). **C**
- Thomas, J. Fred., E. M., 15 Logan Ave., Sharon, Pa. (60). **D**
- Thomas, J. Hanson, 1010 St. Paul St., Baltimore, Md. (60).
- *Thomas, Mason B., Professor of Botany, Wabash College, Crawfordsville, Ind. (41). 1894. **G**
- Thomas, Paul K. M., 50 Morningside Ave. East, New York, N. Y. (57).
H I L
- Thomas, Maj. Robert Gibbs, Professor of Mathematics and Engineering, South Carolina Military Academy, Charleston, S. C. (58). **A D**
- Thomas, William S., M. D., 240 West 71st St., New York, N. Y. (60). **K**
- *Thompson, Alton Howard, D. D. S., 720 Kansas Ave., Topeka, Kans. (33). 1902. **H**
- Thompson, Miss Anna Ford, P. O. Box 32, Summit, N. J. (49). **G**
- Thompson, Caroline Burling, Ph. D., Instructor in Zoology, Wellesley College, Wellesley, Mass. (58). **F**
- Thompson, Frank E., 12th St., and East 8th Ave., Boulder, Colo. (61). **L**
- Thompson, Gustave W., 129 York St., Brooklyn, N. Y. (58). **C D G I**
- Thompson, Henry C., 3510 Carroll Ave., Chicago, Ill. (58). **L**
- *THOMPSON, HENRY DALLES, Ph. D., Professor of Mathematics, Princeton University, Princeton, N. J. (57). 1909. **A**
- Thompson, Hugh L., M. E., Waterbury, Conn. (51). **D I**
- Thompson, James, Bureau of Plant Industry, U. S. Department of Agriculture, Washington, D. C. (61). **G**
- Thompson, James David, Library of Congress, Washington, D. C. (52).
A B D I
- Thompson, James E., Mayville, Wis. (48).
- Thompson, James L., M. D., 1906 North Meridian St., Indianapolis, Ind. (39). **F K**
- Thompson, Mrs. James Madison, 20 West Madison St., Baltimore, Md. (60).

- Thompson, John, Editor, *Farmers' Tribune*, Sioux City, Iowa. (58).
- *Thompson, Joseph Osgood, Ph. D., Associate Professor of Physics, Amherst College, Amherst, Mass. (41). 1893. **B**
- Thompson, Ralph Leroy, M. D., Director, Department of Pathology and Bacteriology, St. Louis University, St. Louis, Mo. (57). **K**
- Thompson, Robert Means, 43 Exchange Place, New York, N. Y. (49).
- *Thompson, W. Gilman, M. D., 34 East 31st St., New York, N. Y. (50). 1902. **K**
- Thompson, Rev. Walter, D. D., Garrison, N. Y. (49).
- Thompson, Walter N., M. D., Sullivan, Ind. (58). **C K**
- *Thomson, Elihu, Ph. D., 22 Monument Ave., Swampscott, Mass. (37). 1888. **B C D**
- Thomson, Henry Nellis, care International Smelting and Refining Co., Tooele, Utah. (58). **B C D**
- Thomson, Robert Boyd, Botanical Department, University of Toronto, Toronto, Canada. (57). **G**
- Thorn, Joseph F., E. M., Elk City, Idaho. (60). **D**
- *Thornber, John James, Professor of Botany, University of Arizona, Tucson, Ariz. (50). 1905. **G**
- *Thornburg, Charles Lewis, Ph. D., Professor of Mathematics and Astronomy, Lehigh University, South Bethlehem, Pa. (44). 1897. **A B L**
- *Thorndike, Edward Lee, Ph. D., Professor of Educational Psychology, Columbia University, New York, N. Y. (49). 1901. **H L**
- Thorndike, Townsend W., M. D., 20 Newbury St., Boston, Mass. (58). **H K**
- THORNE, MRS. PHOEBE ANNA, 558 Madison Ave., New York, N. Y. (50).
- Thorp, Frank H., Ph. D., 200 Mt. Vernon St., West Roxbury, Mass. (57). **E C**
- Thorvaldson, Thorbergur, Harvard University, Cambridge, Mass. (58). **C**
- *Thruston, Gates Phillips, Nashville, Tenn. (38). 1890. **H**
- *Thruston, R. C. Ballard, care Ballard & Ballard Co., Louisville, Ky. (36). 1896. **E**
- Thurber, Charles Herbert, Ph. D., 29 Beacon St., Boston, Mass. (52). **I**
- Thurber, Samuel Wood, M. D., 104 East 39th St., New York, N. Y. (57). **K**
- Thurston, Azor, Grand Rapids, Ohio. (58). **C**
- Thwaits, Fred C., 405 Iron Block, Milwaukee, Wis. (60). **L**
- *Thwing, Charles Burton, Western Reserve University, Cleveland, Ohio. (54). 1906. **B**
- *Tibbals, Charles Austin, Jr., Instructor in Chemistry, University of Wisconsin, Madison, Wis. (54). 1909. **C**
- Tibbals, George Attwater, 148 Milton St., Brooklyn, N. Y. (51).
- Tibbetts, James I., M. D., Wayzata, Minn. (60). **K**
- Tibbetts, Sydney A., 1613 Josephine St., Berkeley, Cal. (60). **C**
- Tibbits, Henry S., 24th St. and Marshall Boulevard, Chicago, Ill. (61).
- Tickell, Alfred H., M. D., Nevada City, Cal. (60). **K**

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- Tierney, Dillon P., Forest Experiment Station, Cloquet, Minn. (61). **G**
- Tiffany, Harold Edward, Newark, Del. (58). **BCK**
- Tiffany, Louis C., 401 Fifth Ave., New York, N. Y. (50).
- Tilden, Charles Joseph, C. E., 1619 Israel Ave., Ann Arbor, Mich. (60). **D**
- Tilderquist, William M., P. O. Box 613, Hibbing, Minn. (60). **D**
- *Tilghman, B. C., 2210 St. James Place, Philadelphia, Pa. (54). 1906.
- *Tillman, Col. Samuel E., U. S. A., Professor of Chemistry, Mineralogy and Geology, West Point, N. Y. (54). 1906. **BCE**
- Tilney, Frederick, M. D., 161 Henry St., Brooklyn, N. Y. (60). **K**
- *Tilton, Prof. John Littlefield, Library, Simpson College, Indianola, Iowa. (50). 1906. **E**
- Timolat, J. G., 24 Tompkins Ave., New Brighton, S. I., N. Y. (57).
- *Tingle, John Bishop, Ph. D., McMaster University, Toronto, Canada. (50). 1904. **C**
- Tinker, Martin Buell, M. D., Assistant Professor of Surgery, Cornell University Medical School, Ithaca, N. Y. (61). **K**
- *Titchener, Edward Bradford, Ph. D., LL. D., Sage Professor of Psychology, Cornell University, Ithaca, N. Y. (51). 1902. **H**
- Titworth, Alfred A., Professor of Civil Engineering and Graphics, Rutgers College, New Brunswick, N. J. (58). **ABD**
- *Tittmann, Otto H., Superintendent, U. S. Coast and Geodetic Survey, Washington, D. C. (24). 1888. **A**
- Titus, E., Jr., 10 East 70th St., New York, N. Y. (50).
- *Titus, Edward G., Professor of Entomology, Agricultural Experiment Station, Logan, Utah. (50). 1906. **F**
- Tivnan, Edward P., S. J., Fordham University, New York, N. Y. (58). **C**
- *Toch, Maximilian, 261 West 71st St., New York, N. Y. (57). 1909. **C**
- Todd, Albert May, Kalamazoo, Mich. (37). **C**
- *Todd, David, Ph. D., Professor of Astronomy and Navigation, and Director of Observatory, Amherst College, Amherst, Mass. (27). 1881. **ABDK**
- *Todd, Prof. James Edward, 1224 Rhode Island St., Lawrence, Kans. (22). 1886. **E**
- Todd, J. H., M. D., Christmas Knoll, Wooster, Ohio. (48). **HK**
- Todd, William J., M. D., Mt. Washington, Baltimore, Md. (51). **KL**
- Toensfeldt, Hans C., C. E., 4670 Gibbons St., St. Louis, Mo. (60). **D**
- Tolman, Lucius M., 1408 Emerson St. N. W., Washington, D. C. (58). **C**
- Tomkins, Calvin, C. E., 17 Battery Place, New York, N. Y. (60). **D**
- Tomlinson, L. C., E. E., care Automatic Electric Co., Chicago, Ill. (60). **D**
- Tompkins, Perry T., 2526 Durant Ave., Berkeley, Cal. (58). **ABCDL**
- Tonnele, Theodore, Metallurgical Engineer, 282 West 70th St., New York, N. Y. (50). **E**
- Torney, George H., Jr., M. D., Utica State Hospital, Utica, N. Y. (60). **K**
- *Torrey, Harry Beal, Ph. D., Associate Professor of Zoology, University of California, Berkeley, Cal. (52). 1905. **FK**

- Totman, David M., M. D., 303 Montgomery St., Syracuse, N. Y. (50). **K**
- Tottingham, Wm. Edward, Agricultural Experiment Station, Madison, Wis. (58). **C**
- Toumey, James William, 459 Prospect St., New Haven, Conn. (58). **F**
- Toussaint, Camille A., 3688 Boulevard, Jersey City, N. J. (58). **A**
- *Tower, Olin Freeman, Ph. D., Professor of Chemistry, Adelbert College, Cleveland, Ohio. (50). 1904. **C**
- *Tower, Ralph Winfred, Ph. D., Curator of Physiology, American Museum of Natural History, New York, N. Y. (52). 1905. **K**
- *Tower, William Lawrence, Assistant Professor of Embryology, University of Chicago, Chicago, Ill. (55). **F**
- Tower, Willis E., 344 North Normal Parkway, Chicago, Ill. (60). **A**
- Towl, Forrest M., C. E., 794 Carroll St., Brooklyn, N. Y. (60). **D**
- *Towle, Prof. William Mason, Clarkson School of Technology, Potsdam, N. Y. (44). 1902. **D**
- *Townley, Sidney Dean, Assistant Professor of Applied Mathematics, Stanford University, Cal. (53). 1906. **A**
- Townsend, Miss Anna B., 118 Lambert St., Philadelphia, Pa. (52). **F G**
- Townsend, C. H. T., Piura, Piura, Peru, S. A. (60). **F**
- Townsend, Charles Hoskins, Director, New York Aquarium, Battery Park, N. Y. (58). **F**
- *Townsend, Charles Orrin, Ph. D., Garden City, Kansas. (46). 1902. **G**
- *Townsend, Edgar Jerome, Ph. D., 510 John St., Champaign, Ill. (54). 1906. **A L**
- *Tozzer, Alfred Marston, Ph. D., Peabody Museum, Cambridge, Mass. (58). 1908. **H**
- Tracey, Joshua Irving, Teacher of Physics, Pennington Seminary, Upperco Md. (57). **A B**
- *Tracy, Samuel M., Biloxi, Miss. (27). 1881. **G**
- *Transeau, Edgar Nelson, Ph. D., Professor of Botany, State Normal School, Charleston, Ill. (53). 1900. **G**
- *Traphagen, Frank Weiss, Ph. D., 1235 Humboldt St., Denver, Colo. (35). 1889. **C E F**
- Traver, Wilber H., M. E., care E. M. Mackie, C. P. T. Co., Franklin, Pa. (60). **D**
- *Treadwell, Aaron L., Ph. D., Professor of Biology, Vassar College, Poughkeepsie, N. Y. (57). 1909. **F**
- Treat, Erastus B., 942 St. Nicholas Ave., New York, N. Y. (29). **F I**
- *TRELEASE, W.M., LL.D., Director, Missouri Botanical Garden, St. Louis, Mo. (39). 1891. **G**
- Tremoulet, J. Sydney, Local Manager, Grasselli Chemical Co., P. O. Box 1108, New Orleans, La. (55). **C**
- Trettien, A. W., University of South Dakota, Vermilion, S. D. (61).
- Trew, Niel C., M. D., 146 East Ave. 56, Los Angeles, Cal. (60). **K**
- Trippett, J. Fenton, M. D., Amos, W. Va. (60). **K**
- Trocon, Albert A., C. E., care Midland Bridge Co., Kansas City, Mo. (60). **D**

MEMBERS AND FELLOWS.

- Troop, James, Purdue University, La Fayette, Ind. (60). **F**
- Trotter, Spencer, M. D., Swarthmore College, Swarthmore, Pa. (55).
- E F H**
- Trowbridge, Arthur C., 5618 Drexel Ave., Chicago, Ill. (58). **E**
- *Trowbridge, Augustus, Ph. D., Professor of Physics, Princeton University, Princeton, N. J. (47). 1900. **B**
- *Trowbridge, Charles Christopher, Tutor in Physics, Columbia University, New York, N. Y. (50). 1901. **B**
- Trowbridge, Mrs. Luther H., 304 West 99th St., New York, N. Y. (21).
- G I**
- True, Alfred Charles, Ph. D., Director, Office of Experiment Stations, U. S. Department of Agriculture, Washington, D. C. (52). **L**
- *True, Frederick William, I.L.D., U. S. National Museum, Washington, D. C. (28). 1882. **F**
- *True, Rodney Howard, Ph. D., U. S. Department of Agriculture, Washington, D. C. (46). 1899. **G**
- Truesdell, George, Onondaga, Eckington, D. C. (49). **I**
- Truman, James, D.D.S., Department of Dentistry, University of Pennsylvania, Philadelphia, Pa. (54).
- Trush, Jacob, M. D., P. O. Box 284, Cincinnati, Ohio. (60). **K**
- Tubbs, Frank Dean, S.T.D., Professor of Astronomy and Geology, Bates College, Lewiston, Me. (60). **A E**
- Tucker, Miss Arabella H., Professor of Botany, State Normal School, Worcester, Mass. (54). **G**
- Tucker, Charles Edward M. D., Box 45, Joppa, Ill. (58). **H**
- Tucker, George M., Ph. D., Mgr., Tucker Plant Breeding Farm, Blodgett, Mo. (53). **C G**
- Tucker, Herman F., C. E., Culebra, Canal Zone, Panama. (60). **D**
- Tucker, Colonel N. Beverley, Professor of Geology and Associate Professor of Chemistry, Virginia Military Institute, Lexington, Va. (55). **C E**
- *Tucker, Richard Hawley, C. E., Director, San Luis Observatory, San Luis, Argentine Republic, South America. (50). 1902. **A D**
- Tucker, William Albert, University Park, Denver, Colo. (51). **G H**
- Tucker, William Conquest, C. E., 156 Fifth Ave., New York, N. Y. (51). **D**
- *Tucker, Willis Gaylord, M. D., Ph. D., Professor of Chemistry, Albany Medical College, Albany, N. Y. (29). 1888. **C K**
- *TUCKERMAN, ALFRED, Ph. D., University Club, New York, N. Y. (39). 1891. **C**
- *Tuckerman, Frederick, Ph. D., Amherst, Mass. (58). 1909. **F**
- *Tuckerman, Louis Bryant, Jr., Adjunct Professor of Physics, University of Nebraska, Lincoln, Neb. (50). 1906. **B**
- *Tufts, James H., Ph. D., I.L.D., Professor of Philosophy, University of Chicago, Chicago, Ill. (58). 1910. **L**
- Tunstall, Whitmell Pugh, 181 La Salle St., Chicago, Ill. (52). **D**
- Tuohy, John, corner G and Tulare Sts., Tulare, Cal. (50). **D I**

- Turck, Fenton B., M. D., 1820 Michigan Ave., Chicago, Ill. (51). **K**
- Turman, A. Emmett, M. D., 17 West Grace St., Richmond, Va. (60). **K**
- Turnbull, Thomas, Jr., M. D., Assistant Professor of Practice of Medicine, Allegheny University, Allegheny, Pa. (50). **F K**
- *Turneure, Frederick Eugene, C. E., Professor of Engineering, University of Wisconsin, Madison, Wis. (51). 1906. **D**
- *Turner, Arthur Bertram, Ph. D., College of the City of New York, New York, N. Y. (52). 1906. **A**
- Turner, Eben T., Box 312, Ithaca, N. Y. (60). **B**
- Turner, William Franklin, Auburn, Ala. (60). **F**
- *Turrentine, John W., Ph. D., Wesleyan University, Middletown, Conn. (53). 1909. **C**
- Tuteur, Edwin B., M. D., 103 State St., Chicago, Ill. (60). **K**
- Tuthill, J. B. T., East William St., San José, Cal. (58). **C**
- *Tuttle, Albert Henry, Professor of Biology, University of Virginia, Charlottesville, Va. (17). 1874. **F**
- Tuttle, David Kitchell, Ph. D., U. S. Mint, Philadelphia, Pa. (58). **B C**
- Tuttle, Franklin E., Ph. D., 125 East Maxwell St., Lexington, Ky. (58). **C**
- Tuttle, Horace Burt, E. E., 727 Cuyahoga Building, Cleveland, Ohio. (60). **D**
- Tweedy, Miss Alice B., 417 West 120th St., New York, N. Y. (49).
- Twenhofel, W. H., 122 Derby Ave., New Haven, Conn. (61). **E**
- *Twitchell, Ernst, Wyoming, Ohio. (39). 1891. **C**
- Twitmyer, Edwin B., Ph. D., Assistant Professor of Psychology, College Hall, University of Pennsylvania, Philadelphia, Pa. (58). **H L**
- *Tyler, Ansel Augustus, Ph. D., Professor of Biology, Bellevue College, Bellevue, Nebr. (50). 1906. **F G K**
- Tyler, DeWitt C., M. D., Clifton, Kans. (60). **K**
- Tyler, Frederick Jared, Perry, Ohio. (54). **G**
- *Tyler, Harry Walter, Ph. D., Professor of Mathematics, Massachusetts Institute of Technology, Boston, Mass. (47). 1906. **A L**
- Tyler, Hoell, M. D., 112 Cajou St., Redlands, Cal. (60). **K**
- Tyrode, Maurice Vejux, M. D., 416 Marlboro St., Boston, Mass. (58). **K**
- *Tyrrell, Joseph Burr, E. M., 588 Huron St., Totouto, Canada. (50). 1903. **D E**
- *Udden, Johan August, Ph. D., 1000 38th St., Rock Island, Ill. (54). 1906. **E**
- *Uhler, Philip Reese, LL.D., 254 West Hoffman St., Baltimore, Md. (19). 1874. **E F**
- Uhlig, Edward C., care Citizens Gas Works, 5th and Hoyt Sts., Brooklyn, N. Y. (58). **C**
- Uihlein, August, 332 Galena St., Milwaukee, Wis. (51).
- *Ullmann, H. M., Assistant Professor of Analytical and Industrial Chemistry, Lehigh University, South Bethlehem, Pa. (54). 1909. **C**
- Ulman, Joseph F., M. D., 2629 North 29th St., Philadelphia, Pa. (60). **K**

- Uimann, Charles J., M. E., 113 Grand St., New York, N. Y. (60). **D**
- Ulrey, Albert B., Professor of Biology, University of Southern California, Los Angeles, Cal. (54). **F**
- *Ulrich, Edward Oscar, 2421 First St. N. W., Washington, D. C. (58). 1910. **E**
- Ulrich, John Linck, 398 McDonough St., Brooklyn, N. Y. (60). **F**
- Underhill, Anthony Lisenard, 615 6th St., Minneapolis, Minn. (58).
- Underhill, Mary, 132½ East 19th St., New York, N. Y. (60). **A**
- Underwood, Arthur J., E. M., San Jose de Gracia, Sinaloa, Mexico. (60). **D**
- *Underwood, William Lyman, Lecturer on Biology, Massachusetts Institute of Technology, Boston, Mass. (51). 1906. **F K**
- Unger, Jacob W., M. D., West Point, Miss. (60). **K**
- Updegraff, Harlan, Bureau of Education, Washington, D. C. (61). **L**
- *Updegraff, Milton, Professor of Mathematics, U. S. N., 1719 35th St., Washington, D. C. (40). 1895. **A**
- *Upham, Warren, Secretary, Minnesota Historical Society, St. Paul, Minn. (25). 1880. **E**
- *Upton, Winslow, Professor of Astronomy, Ladd Observatory, Providence, R. I. (29). 1883. **A L**
- Urban, F. M., University of Pennsylvania, Philadelphia, Pa. (58). **A H**
- Usher, Susannah, Assistant Professor of Household Science, University of Illinois, Urbana, Ill. (58). **C**
- *Vail, Miss Anna Murray, 29 Washington Square, New York, N. Y. (50). 1906. **G**
- Vaile, Joel F., 420 Equitable Building, Denver, Colo. (50). **I**
- Valentine, Ferdinand Charles, M. D., 171 West 71st St., Manhattan, New York, N. Y. (57). **I K**
- Valentine, Morris Crawford, Instructor in Biology, Wadleigh High School, New York, N. Y. (52). **F G L**
- Valladares, Antenor, M. E., Apartado 987, Lima, Peru, S. A. (58). **C D**
- Valle, Felipe, Director, Observatorio Astronomico Nacional, Tacubaya, D. F., Mexico. (54). **A B**
- *Van Amringe, John Howard, Ph. D., Professor of Mathematics, Columbia University, New York, N. Y. (50). 1901. **A**
- Van Antwerp, Rev. Francis J., 1280 Woodward Ave., Detroit, Mich. (46).
- Van Arsdale, Miss May Belle, Instructor in Physical Science, Teachers College, New York, N. Y. (56). **B C**
- Van Arsdale, Wm. H., E. M., Hotel Windermere, Chicago, Ill. (58). **D**
- VAN BEUREN, FREDERICK T., M. D., 51 West 52d St., New York, N. Y. (36).
- Van Cortlandt, R. B., 30 Pine St., New York, N. Y. (57).
- Van Cott, Harrison H., 25 North Wendell Ave., Schenectady, N. Y. (61). **L**
- Van den Burg, Wm H., M. D., 30 West 48th St., New York, N. Y. (57). **K**

- Vanderbilt, Cornelius, 30 Pine St., New York, N. Y. (51). **D**
- Van der Laan, John, M. D., 200 South Terrace St., Muskegon, Mich. (51). **K**
- Vanderpoel, Frank, Ph. D., 175 Park Ave., Orange, N. J. (50). **B C F K**
- Vander Veer, Albert, M. D., 28 Eagle St., Albany, N. Y. (60). **K**
- Vander Veer, Edgar A., M. D., 28 Eagle St., Albany, N. Y. (60). **K**
- *Van Dine, Delos Lewis, Audubon Park, New Orleans, La. (51). 1906. **F**
- Van Duyn, John, M. D., 318 James St., Syracuse, N. Y. (50). **F K**
- *Van Dyck, Francis Cuyler, Ph. D., Rutgers College, New Brunswick, N. J. (28). 1882. **B C D**
- Van Dyck, William Van Bergen, E. E., care W. R. Grace & Co., Valparaiso, Chile, S. A. (50). **B D**
- Van Epps, Clarence, M. D., Iowa City, Iowa. (58). **C K**
- Van Gasken, Frances C., M. D., 115 South 22d St., Philadelphia, Pa. (60). **K**
- *Van Hise, Charles Richard, Ph. D., LL. D., University of Wisconsin, Madison, Wis. (37). 1890. **E L**
- *Van Hook, James M., Bloomington, Ind. (56). 1908. **G**
- Van Hook, Weller, M. D., 1515 East 66th Place, Chicago, Ill. (60). **K**
- *VAN HORN, FRANK ROBERTSON, Professor of Geology and Mineralogy, Case School of Applied Science, Cleveland, Ohio. (57). 1909. **E**
- Van Ingen, Philip, M. D., 125 East 71st St., New York, N. Y. (57). **H K**
- Van Isschot, Pierre E. Charles, E. M., Casilla 240, Guayaquil, Ecuador, S. A. (60). **D**
- *Van Name, Willard Gibbs, 121 High St., New Haven, Conn. (54). 1906. **F**
- Vannier, Charles H., 76 Harvard Place, Buffalo, N. Y. (58). **C D**
- *Van Ornum, John Lane, Professor of Civil Engineering, Washington University, St. Louis, Mo. (50). 1901. **A D L**
- Van Orstrand, Charles Edwin, U. S. Geological Survey, Washington, D. C. (58). **A B E**
- *Van Slyke, Lucius Lincoln, Ph. D., Agricultural Experiment Station, Geneva, N. Y. (41). 1901. **C**
- Van Trump, Isaac, 2337 South Paulina St., Chicago, Ill. (58). **B C D**
- *Van Vleck, Edward Burr, Ph. D., Professor of Mathematics, University of Wisconsin, Madison, Wis. (57). 1909. **A**
- *Van Vleck, John Monroe, LL. D., Wesleyan University, Middletown, Conn. (23). 1875. **A B**
- Van Winkle, Edgar Beach, C. E., 115 East 70th St., New York, N. Y. (49). **C**
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- Varney, William Wesley, M. E., 710 North Carey St., Baltimore, Md. (60). **D**
- Vaughan, Harold S., M. D., 616 Madison Ave., New York, N. Y. (58). **K**
- *Vaughan, T. Wayland, U. S. Geological Survey, Washington, D. C. (52). 1906. **E F G H I**

- *Vaughan, Victor C., Professor of Hygiene, University of Michigan, Ann Arbor, Mich. (58). 1910. **K**
- *VAUX, GEORGE, JR., 404 Girard Building, Philadelphia, Pa. (33). 1906. **A E**
- Vavra, Joseph, Holly, Colo. (58). **C**
- Vawter, C. E., Jr., Department of Physics, Virginia Polytechnic Institute, Blacksburg, Va. (57). **B**
- *Veatch, Arthur Clifford, U. S. Geological Survey, Washington, D. C. (52). 1907. **E**
- Veazie, Henry Augustus, M. D., 1305 St. Mary St., New Orleans, La. (55). **K**
- *Veblen, Oswald, Ph. D., Professor of Chemistry, Princeton, N. J. (58). 1909. **A C**
- Vedder, Captain Edward B., Medical Corps, U. S. A., care Chief Surgeon, U. S. A., Manila, P. I. (57). **K**
- Veeder, Curtis Hussey, M. E., 17 Marshall St., Hartford, Conn. (50). **B D**
- Veeder, M. A., Lock Box 1108, Lyons, N. Y. (60). **A**
- *Venable, Francis Preston, Ph. D., LL. D., President, University of North Carolina, Chapel Hill, N. C. (39). 1891. **C**
- Venable, Wm. Mayo, C. E., 216 Woodbine St., Louisville, Ky. (50). **D**
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- Verner, S. P., Columbia, S. C. (58). **H**
- Ver Planck, William G., 149 Broadway, New York, N. Y. (57).
- *Verrill, Addison Emery, Professor of Zoology, Yale University, New Haven, Conn. (47). 1898. **F**
- Very, Frank W., Westwood Astrophysical Observatory, Westwood Mass. (60). **A**
- Vickery, Roy Albion, Bureau of Entomology, U. S. Department of Agriculture, Washington, D. C. (58). **F**
- Viereck, Henry Lorenz, U. S. National Museum, Washington, D. C. (58). **C E F G H I K L**
- Vietor, Agnes C., M. D., Trinity Court, Boston, Mass. (57). **K**
- Viles, James, Lake Forest, Ill. (58).
- Villard, Mrs. Henry, 145 West 58th St., New York, N. Y. (36).
- Vilarello, Juan D., 5a Cipres No. 2728, Mexico, D. F., Mexico. (57). **E**
- Vinal, Washington Irving, 1106 East Capitol St., Washington, D. C. (40). **E**
- *Vincent, George Edgar, Ph. D., Professor of Sociology, University of Chicago, Chicago, Ill. (58). 1910. **L**
- *Vincent, Swale, Professor of Physiology, University of Manitoba, Winnipeg, Canada. (57). 1908. **K**
- Vinson, Albert Earl, Agricultural Experiment Station, Tucson, Ariz. (58). **C**
- Viol, Charles Herman, Kent Chemical Laboratory, University of Chicago, Chicago, Ill. (58). **C**

- Visscher, L. G., M. D., 520 Homer Laughlin Building, Los Angeles, Cal. (58). **K**
- Voegtlin, Carl, Johns Hopkins Medical School, Baltimore, Md. (60). **F K**
- *Vogdes, Brigadier-General Anthony Wayne, U. S. A., Retired, 2425 First St., San Diego, Cal. (32). 1885. **E F**
- *Vogt, Clarence Charles, University of Pittsburg, Pittsburg, Pa. (58). 1910. **C**
- Vogt, Frederick A., Principal, Central High School, Buffalo, N. Y. (53).
- Voje, John Henry, M. D., Proprietor, Waldheim Park, Oconomowoc, Wis. (51). **K**
- von Berge, Henry de R., Perry and Mississippi Sts., Buffalo, N. Y. (57). **C**
- von Ende, Carl L., Professor of Chemistry, University of Idaho, Moscow, Idaho. (58). **C L**
- von Hermann, C. F., 83 West 5th St., Atlanta, Ga. (51). **B**
- von Hoffman, Charles, M. D., 2660 California St., San Francisco, Cal. (51). **H K**
- von Ihering, Dr. Herman, Director, Museu Paulista, Caixa g, São Paulo, Brazil. (51). **F H**
- *von Isakovics, Alois, care Synfleur Scientific Laboratories, Monticello, N. Y. (55). 1909. **C**
- von Keller, Frederick P. P., M. D., 721 C St. N. W., Ardmore, Okla. (60). **K**
- von Mansfelde, Alexander S., M. D., "Quality Hill," Ashland, Nebr. (50). **G K L**
- von Schmid, J. O., 30 West 10th St., New York, N. Y. (57).
- *von Schrenk, Hermann, Ph. D., Missouri Botanical Garden, St. Louis, Mo. (49). 1901. **G**
- Voorhees, Edward B., New Brunswick, N. J. (58). **C L**
- Voorhees, Louis Augustus, 111 Carroll Place, New Brunswick, N. J. (57). **C K**
- Voorhees, S. S., U. S. Geological Survey, Washington, D. C. (57). **D**
- Voorhees, Sheldon, M. D., Auburn, N. Y. (60). **K**
- Vorhies, Charles Taylor, Ph. D., Professor of Zoology, University of Utah, Salt Lake City, Utah. (60). **F**
- Voris, Floyd Thomas, 4117 North Verde St., Tacoma, Wash. (50). **B C**
- Vosburgh, Charles H., 78 Bergen Ave., Jamaica, N. Y. (60). **C**
- Vosburgh, William L., 99 Monroe Ave., Brockport, N. Y. (60). **A**
- Votey, J. William, Professor of Civil Engineering, University of Vermont, Burlington, Vt. (50). **D**
- *Vreeland, Frederick K., 8 Hillside Ave., Montclair, N. J. (50). 1908. **B D G**
- Wackenluth, Frederick Christopher, Jr., 57 Freeman St., Newark, N. J. (53). **C**
- *Waddell, John, Assistant Professor of Chemistry, School of Mining, Kingston, Ontario, Canada. (57). 1909. **C**

MEMBERS AND FELLOWS.

- Waddell, John Alexander Low, LL. D., Great Leslie Building, Kansas City, Mo. (58). **D L**
- Waddell, Miss M. E. G., St. Margaret's College, Toronto, Canada. (60). **A**
- Waddell, Montgomery, C. E., E. E., 1 West 101st St., New York, N. Y. (51). **D**
- Waddington, Joseph E. G., M.D., LL.D., 1080 West Warren Ave., Detroit, Mich. (58). **K**
- Wade, Frank C., M. D., Lima, Ind. (58). **K**
- Wade, Frank S., 127 East Wilson Ave., Hollywood, Cal. (60). **C**
- Wade, John W., M. D., 318 North Second St., Millville, N. J. (51). **I**
- Wadleigh, Walter Hiram, Professor of Physics, Park College, Parkville, Mo. (61). **B**
- Wadman, Walter Ernest, 102 Lord Ave., Bayonne, N. J. (50). **B C**
- *WADSWORTH, FRANK LAWTON OLCOTT, Director, Allegheny Observatory, Western University of Pennsylvania, Allegheny, Pa. (52). 1904. **A B**
- Wadsworth, Herbert, 1801 Massachusetts Ave. N. W., Washington, D. C. (52). **D E**
- *Wadsworth, M. Edw., Ph. D., Dean of School of Mines and Metallurgy, and Professor of Mining and Geology, Pennsylvania State College, State College, Pa., also Dean of School of Mines and Professor of Mining Geology, University of Pittsburg, Pittsburg, Pa. (23). 1874. **E L**
- *Wadsworth, Oliver Fairfield, M. D., 526 Beacon St., Boston, Mass. (52). 1906. **K**
- Wadsworth, Richard G., M. D., 323 Beacon St., Boston, Mass. (60). **K**
- Wadsworth, William Austin, Geneva, N. Y. (50). **G**
- Wadsworth, William S., M. D., The Normandie, 36th and Chestnut Sts., Philadelphia, Pa. (54). **K**
- Waggoner, Chauncey W., Professor of Physics, University of West Virginia, Morgantown, W. Va. (61). **B**
- Wagner, Edward A., E. E., 835 West Creighton Ave., Fort Wayne, Ind. (60). **D**
- *Wagner, Frank Caspar, Professor of Steam Engineering, Rose Polytechnic Institute, Terre Haute, Ind. (34). 1897. **D**
- *Wagner, George, Assistant Professor of Zoology, University of Wisconsin, Madison, Wis. (46). 1909. **F L**
- *Wagner, Samuel, President, Wagner Free Institute of Science, Greenbank Farm, West Chester, Pa. (51). 1906.
- Wagner, Samuel Tobias, C. E., School House Lane, Germantown, Philadelphia, Pa. (60). **D**
- Wahrer, Charles Frederick, M. D., 1007 5th St., Fort Madison, Iowa. (53). **G K**
- *Waidner, Charles W., Bureau of Standards, Department of Commerce and Labor, Washington, D. C. (52). 1906. **B**
- Wainwright, Jacob T., C. E., P. O. Box 774, Chicago, Ill. (51). **B D I**
- *Wait, Charles Edmund, Ph. D., Professor of Chemistry, University of Tennessee, Knoxville, Tenn. (51). 1906. **C**

- Wait, John Cassan, C. E., 38 Park Row, New York, N. Y. (58). **D**
- Waite, Edward B., Head of Instruction Department, American School of Correspondence, Chicago, Ill. (58). **D L**
- *Waite, Frederick Clayton, Ph. D., Professor of Histology and Embryology, Western Reserve University, Cleveland, Ohio. (50). 1906. **F K**
- *Waite, M. B., U. S. Department of Agriculture, Washington, D. C. (37). 1893. **G**
- Waite, Willis W., M. D., City Bacteriological Laboratory, 3 Clinton Block, Syracuse, N. Y. (60). **K**
- Wakefield, Homer, M. D., 547 West 123rd St., New York, N. Y. (54). **K**
- *Wakeman, Alfred J., Ph. D., Greenwich, Conn. (55). 1908. **C**
- Walbridge, Miss Mabel Harriet, Randolph-Macon Woman's College, College Park, Va. (58). **B**
- *Walcott, Charles Doolittle, LL. D., Secretary, Smithsonian Institution, Washington, D. C. (25). 1882. **E F**
- Walcott, Frederic C., Englewood, N. J. (60). **I**
- Walcott, Gregory Dexter, Ph. D., 1549 West Minnehaha St., St. Paul, Minn. (61). **L**
- Wald, Olander E., M. D., 5225 North Clark St., Chicago, Ill. (60). **K**
- Waldenberger, Charles A., Ph. D., 322 Warren St., Jersey City, N. J. (61). **C**
- Waldbott, Sigmund, care Ohio Mechanic's Institute, Cincinnati, Ohio. (60). **C**
- *Waldo, Clarence A., Ph. D., Professor of Mathematics, Washington University, St. Louis, Mo. (37). 1889. **A**
- Waldo, Edward H., E. E., 604 West Main St., Urbana, Ill. (60). **D**
- Waldo, Hon. Geo. E., M. C., 290 Broadway, New York, N. Y. (57). **I**
- Waldron, Lawrence Robert, Superintendent, Dickinson Sub-Experiment Station, Dickinson, N. D. (61). **G**
- Wales, Charles Marshall, M. E., 468 Riverside Drive, New York, N. Y. (51). **D**
- *Walker, Buz M., Professor of Mathematics, Mississippi A. and M. College, Agricultural College, Miss. (57). 1908. **A**
- Walker, Byron Edmund, LL. D., 99 St. George St., Toronto, Canada. (38). **E**
- Walker, E. R., M. D., Copperhill, Tenn. (60). **K**
- Walker, Emma Elizabeth, M. D., 165 Madison Ave., New York, N. Y. (57). **KL**
- Walker, Ernest, Professor of Horticulture, University of Arkansas, Fayetteville, Ark. (52).
- Walker, Miles J., M. D., Yorkville, S. C. (60). **K**
- *Walker, Percy H., Bureau of Chemistry, U. S. Department of Agriculture, Washington, D. C. (55). 1908. **C**
- WALKER, R. M., 713 Prudential Building, Atlanta, Ga. (52). **D**
- Walker, Thomas Barlow, President, Board of Directors, Minneapolis City Library, 807 Hennepin Ave., Minneapolis, Minn. (51).

MEMBERS AND FELLOWS.

- *Walker, Wm. Hultz, Ph. D., Professor of Industrial Chemistry, Massachusetts Institute of Technology, Boston, Mass. (53). 1907. **C**
- Wallace, Errett, Department of Plant Pathology, Cornell University, Ithaca, N. Y. (60). **G**
- *Wallace, George B., M. D., Professor of Pharmacology, Bellevue Medical College, New York, N. Y. (58). 1910. **K**
- Waller, Coleman Bailey, Ph. D., Department of Chemistry and Biology, Wofford College, Spartansburg, S. C. (51). **A B C F**
- *WALLER, ELWYN, Ph. D., 7 Franklin Place, Morristown, N. J. (23). 1874.
- Wallerstein, Max, Ph. D., 105 East 91st St., New York, N. Y. (53). **C**
- Wallin, J. E. Wallace, Ph. D., Professor of Psychology and Pedagogy, Normal Training School, Cleveland, Ohio. (57). **H L**
- Wallis, William F., U. S. Coast and Geodetic Survey, Washington, D. C. (56). **B**
- Walmsley, Walter Newbold, E. E., São Paulo, Brazil, S. A. (60). **D**
- Walsh, James Joseph, M. D., LL. D., Dean, Fordham Medical School, New York, N. Y. (51). **H K L**
- Walsh, Joseph, M. D.,(58). **K**
- Walsh, William E., M. D., Morris, Ill. (58). **K**
- Walter, Miss Emma, care Wm. P. Walter's Sons, 1233 Market St., Philadelphia, Pa. (50). **E**
- *Walter, Herbert Eugene, Ph. D., Assistant Professor of Biology, Brown University, Providence, R. I. (57). 1909. **F**
- WALTERS, FRANK, South Sandisfield, Mass. (56). **F G H**
- *Walton, Lee Barker, Ph. D., Professor of Biology, Kenyon College, Gambier, Ohio. (53). 1908. **F**
- Walton, Lyman A., 5737 Woodlawn Ave., Chicago, Ill. (58).
- *Wanner, Atrous, Superintendent of Public Schools, 152 East Philadelphia St., York, Pa. (36). 1890. **E H**
- Warbasse, James, 23 West Fulton St., Gloversville, N. Y. (54). **I**
- Warbasse, James P., M. D., 386 Washington Ave., Brooklyn, N. Y. (60). **K**
- Warburton, Frederick J., 130 New York Ave., Brooklyn, N. Y. (57).
- Ward, Chas., Charleston, W. Va. (57).
- Ward, Charles Howell, 387 West Ave., Rochester, N. Y. (58). **H**
- WARD, CHAS. WILLIS, Queens, Long Island, N. Y. (57).
- Ward, Delancey Walton, Ph. D., 163 Madison Ave., Flushing, Long Island, N. Y. (51). **C**
- Ward, Frank A., 16-26 College Ave., Rochester, N. Y. (40).
- *Ward, Henry Baldwin, Ph. D., University of Illinois, Urbana, Ill. (48). 1899. **F K**
- *Ward, Henry L., Director, Milwaukee Public Museum, Milwaukee, Wis. (51). 1906. **E F H**
- Ward, J. Langdon, 120 Broadway, New York, N. Y. (29). **I**
- *Ward, Lester F., LL. D., Professor of Sociology, Brown University, Providence, R. I. (26). 1879. **E G**

- Ward, Louis Clinton, P. O. Box 11, Huntington, Ind. (51). **E**
- *Ward, R. Halstead, M. D., 53 Fourth St., Troy, N. Y. (17). 1874. **F G K**
- *Ward, Robert De Courcy, Professor of Climatology, Harvard University, Cambridge, Mass. (58). 1910. **E**
- Ward, Willard Parker, E. M., Ph. D., 164 West 58th St., New York, N. Y. (50). **D E**
- Warden, Carl C., M. D., 821 Security Building, Los Angeles, Cal. (58). **H K**
- Warder, Charles Barclay, M. D., 1715 Walnut St., Philadelphia, Pa. (51). **K**
- Wardle, Harriet Newell, Academy of Natural Sciences, Philadelphia, Pa. (47). **E H**
- Wardwell, Mary M., 505 Ashland Ave., Buffalo, N. Y. (60). **A**
- Ware, Martin W., M. D., 1198 Lexington Ave., New York, N. Y. (60). **K**
- Ware, Miss Mary Lee, 41 Brimmer St., Boston, Mass. (47).
- *Ware, Wm. R., Adams St., Milton, Mass. (36). 1901. **D**
- Warfield, Frederic P., 2 Rector St., New York, N. Y. (60).
- Waring, Tracy D., E. E., Standard Underground Cable Co., Perth Amboy, N. J. (60). **D**
- Waring, William George, Webb City, Mo. (58). **B C E**
- Warner, George Biddulph, E. E., care Westinghouse Electric Co., 4 rue Auber, Paris, France. (60). **D**
- *WARNER, JAMES D., 463 East 20th St., Flatbush, Brooklyn, N. Y. (18). 1874. **A B**
- *Warner, Worcester R., 1722 Euclid Ave., Cleveland, Ohio. (33). 1888. **A B D**
- *Warren, Charles H., Ph. D., Assistant Professor of Mineralogy, Massachusetts Institute of Technology, Boston, Mass. (52). 1906. **C E**
- Warren, Edward R., 20 West Caramillo St., Colorado Springs, Colo. (57). **F**
- Warren, Geo. Frederick, Ph. D., Professor of Farm Crops, Cornell University, Ithaca, N. Y. (52).
- Warren, Homer S., M. D., 103 State St., Chicago, Ill. (58). **K**
- *Warren, Howard Crosby, Professor of Psychology, Princeton University, Princeton, N. J. (46). 1901. **H**
- *Warren, Joseph Weatherhead, M. D., Professor of Physiology, Bryn Mawr College, Bryn Mawr, Pa. (31). 1886. **K**
- Warren, Mortimer, M. D., 39 East 27th St., New York, N. Y. (60). **K**
- Warren, William Homer, Ph. D., 1806 Locust St., St. Louis, Mo. (58). **C K**
- Warren, William R., 68 William St., New York, N. Y. (49).
- Warrington, James N., 617 South Grand Ave., Los Angeles, Cal. (34). **D**
- Warth, Albin H., Box 12, Stapleton, N. Y. (58). **C**
- Washburn, Hon. Charles Grenfill, 314 Main St., Worcester, Mass. (54).
- Washburn, Edward W., Chemical Laboratory, University of Illinois, Urbana, Ill. (60). **C**

MEMBERS AND FELLOWS.

- Washburn, Frank Sherman, C. E., Stahlman Building, Nashville, Tenn. (60). **D**
- *Washburn, Frederick Leonard, State Entomologist, 1112 6th St. S. E., Minneapolis, Minn. (51). 1906. **F**
- *Washburne, Alva Courtenay, Actuary, Hartford Life Insurance Co., Hartford, Conn. (54). 1907. **A**
- Washington, Charles Milnor, 58 West 57th St., New York, N. Y. (52). **K**
- *Washington, Henry Stephens, Ph. D., Consulting Geologist and Chemist, 95 Liberty St., New York, N. Y. (44). 1897. **C E**
- Washington, William de Hertburne, C. E., 267 5th Ave., New York, N. Y. (60). **D**
- Wassall, Joseph W., Lake Forest, Ill. (58).
- *Waterman, Frank Allan, Ph. D., Professor of Physics, Smith College, Northampton, Mass. (54). 1906. **B**
- Waterman, James Sears, M. D., 676 St. Marks Ave., Brooklyn, N. Y. (60). **K**
- Waterman, Warren Gookin, Professor of Physics and Geology, Fisk University, Nashville, Tenn. (53). **B E L**
- *Waters, Campbell E., Ph. D., Bureau of Standards, Washington, D. C. (52). 1906. **C**
- Waters, Theodore, Room 96, Bible House, New York, N. Y. (54). **I**
- Watjen, Louis, 68 Broad St., New York, N. Y. (57).
- Watkins, Howard R., Assistant Chemist, Army Medical Museum, Washington, D. C. (57). **C**
- Watkins, Oscar S., Agricultural Experiment Station, Urbana, Ill. (58). **C G**
- Watkins, Willard H., 622 Linwood Ave., Buffalo, N. Y. (58). **C**
- Watson, Benj. Marston, Jamaica Plain, Mass. (50).
- Watson, Miss Caroline A., North Andover, Mass. (31). **D**
- *Watson, Floyd Rowe, Ph. D., Assistant Professor of Physics, University of Illinois, Urbana, Ill. (58). 1909. **B L**
- Watson, Frank E., 1172 Tinton Ave., New York, N. Y. (57).
- Watson, Frank Elbert, Clark University, Worcester, Mass. (51). **F**
- Watson, John Henry, 51 West 75th St., New York, N. Y. (57).
- Watson, Joseph Ralph, 212 South High St., Albuquerque, New Mexico. (50). **F**
- *Watson, Thomas Augustus, East Braintree, Mass. (42). 1906. **E F L**
- *Watson, Thomas Leonard, Ph. D., State Geologist, Professor of Economic Geology, University of Virginia, Charlottesville, Va. (60). 1910. **E**
- *WATSON, WILLIAM, Ph. D., 107 Marlborough St., Boston, Mass. (12). 1884. **A**
- Watson, William Franklin, Professor of Chemistry and Biology, Furman University, Greenville, S. C. (56). **F**
- Watters, Daniel M., E. M., 722 Central Building, Seattle, Wash. (60). **D**
- Watts, Rowland, Head of Department of Mathematics, Baltimore Polytechnic Institute, Baltimore, Md. (58). **A B D E F G H**

MEMBERS AND FELLOWS.

- Waugh, James Church, 5012 12th Ave. N. E., Seattle, Wash. (52).
- WAYLAND, CHARLES A., M. D., 140 North 3d St., San José, Cal. (58). **K**
- *Wead, Charles K., U. S. Patent Office, Washington, D. C. (47). 1898.
- B**
- Weaver, Edwin Oscar, Professor of Physics, Wittenberg College, Springfield, Ohio. (51). **B**
- Weaver, George H., M. D., 1628 Washington Building, Chicago, Ill. (58).
- H K**
- Webb, Gerald B., M. D., 1222 North Cascade Ave., Colorado Springs, Colo. (60). **K**
- Webb, Harrison E., 8 Irving Place, Summit, N. J. (60). **A**
- *Webb, Prof. John Burkitt, Consulting Engineer, Hoboken, N. J. (31). 1883. **A B D**
- Webb, Lewis Warrington, E. E., Master Electrician, Navy Yard, Norfolk, Va. (60). **D**
- Webber, G. E., M. D., Morland, Kans. (60). **K**
- *Webber, Herbert John, Ph. D., Professor of Experimental Plant Breeding, Cornell University, Ithaca, N. Y. (47). 1900. **G**
- Webber, Samuel G., M. D., 60 Gorham Ave., Brookline, Mass. (60). **K**
- Weber, Arthur, M. D., 1425 North Broad St., New Orleans, La. (60). **K**
- Weber, Arthur L., 2514 Prairie Ave., Chicago, Ill. (58).
- Weber, George Adam, C. E., M. E., 71 Courtland Ave., Stamford, Conn. (58). **D**
- *Weber, Henry Adam, Ph. D., Professor of Agricultural Chemistry, Ohio State University, Columbus, Ohio. (35). 1888. **C**
- Weber, Leonard, M. D., 25 West 46th St., New York, N. Y. (57). **I**
- Weber, Raxley Ferrin, Soldan High School, St. Louis, Mo. (57). **C**
- Webster, Mrs. A. G., Hotel Vendome, Boston, Mass. (60).
- Webster, Albert Lowry, Consulting Civil and Sanitary Engineer, 82 Wall St., New York, N. Y. (50). **C D**
- *Webster, Arthur Gordon, Ph. D., LL. D., Professor of Physics, Clark University, Worcester, Mass. (47). 1898. **A B**
- Webster, Clement L., E. M., 111 Hawkins Ave., Charles City, Iowa. (58). **D E H**
- Webster, David Locke, 134 Summer St., Boston, Mass. (60). **B**
- Webster, Edgar Huidekoper, Professor of Physical Science, Atlanta University, Atlanta, Ga. (50). **B C E**
- Webster, Edgar M., M. D., 9139 Commercial Ave., Chicago, Ill. (60). **K**
- *Webster, Prof. Francis Marion, U. S. Department of Agriculture, Washington, D. C. (35). 1890. **F**
- Webster, Frederic S., Newsboys' Home, Grant and Webster Ave., Pittsburgh, Pa. (51). **E F H**
- Webster, J. Clarence, M. D., 27 Bellevue Place, Chicago, Ill. (50). **K**
- Webster, Ralph Waldo, M. D., Ph. D., Associate in Chemistry, Rush Medical College, Chicago, Ill. (57). **C K**
- Webster, Robert Lorenzo, Ames, Iowa. (58). **F**

MEMBERS AND FELLOWS.

Weckel, Miss Ada Louise, 424 North Grove Ave., Oak Park, Ill. (58).

F G

Wedding, E. Victor, M. D., 2122 East 15th St., Kansas City, Mo. (60). **K**

*Weed, Dr. Clarence Moores, State Normal School, Lowell, Mass. (38).
1890. **F**

Weed, George M., 113 Devonshire St., Boston, Mass. (54). **I**

Weed, Henry T., 181 Prospect Park, West, Brooklyn, N. Y. (54). **BC**

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Weed, J. N., 244 Grand St., Newburgh, N. Y. (37). **E I**

Weed, Lewis H., M. D., Johns Hopkins Medical School, Baltimore, Md.
(61). **K**

*Weed, Walter Harvey, 100 East Ave., Norwalk, Conn. (52). 1903. **E**

Weeks, Edwin Ruthven, Consulting Engineer, 3408 Harrison St., Kansas
City, Mo. (50). **ABL**

*Weeks, Fred Boughton, 226 Bailey St., Los Angeles, Cal. (58). 1910. **E**

Weeks, Henry Clay, Engineer in Economics, Bayside, Long Island, N. Y.
(57). **D**

Weeks, John Elmer, M. D., 46 East 57th St., New York, N. Y. (60). **K**

*Weeks, Rufus Wells, 346 Broadway, New York, N. Y. (54). 1906. **AI**

*Weems, Julius Buel, Ph. D., Crewe, Va. (44). 1900. **C**

*Weems, Mason Locke, Professor of Botany and Physiology, Valparaiso
University, Valparaiso, Ind. (52). **GK**

Weems, Mrs. R. A. D., Oakland, Md. (60).

Wehle, Theodore, 59 West 83d St., New York, N. Y. (57). **BC**

Wehner, Lewis, M. E., University Club, Milwaukee, Wis. (60). **D**

Weida, George F., Kenyon College, Gambier, Ohio. (60). **CL**

*Weidman, Samuel, Wisconsin State Geological and Natural History
Survey, Madison, Wis. (53). 1906. **E**

Weightman, Charles H., 5859 Michigan Ave., Chicago, Ill. (60). **A**

Weil, Richard, M. D., 163 West 86th St., New York, N. Y. (58). **CK**

Weimer, Edgar A., E. M., Superintendent, Weimer Machine Works Co.,
Lebanon, Pa. (51). **D**

Weinberg, Semen G., M. E., Kirpichny 1, St. Petersburg, Russia. (60).

D

Weinberger, William, M. D., 252 Willis Ave., New York, N. Y. (58). **K**

Weingarten, Frederick Simon, Ph. D., 28 West 91st St., New York, N. Y.
(57). **K**

Weinrich, Morris F., 76 Ashburton Ave., Yonkers, N. Y. (60). **A**

*Weinzirl, John, Ph. D., Professor of Bacteriology, University of Wash-
ington, Seattle, Wash. (45). 1906. **G**

Weir, Samuel, Ph. D., Deau, School of Education, Dakota Wesleyan
University, Mitchell, S. D. (60). **L**

Weis, Joseph D., M. D., 1448 Jackson Ave., New Orleans, La. (54). **K**

Weiss, John Morris, 1726 North 16th St., Philadelphia Pa. (58). **C**

Weissmann, Frederick W., 2828 Vine St., Cincinnati, Ohio. (60). **K**

Welch, Emily Hamilton, Packer Collegiate Institute, Brooklyn, N. Y.
(58). **CE**

- *Welch, William Henry, M. D., LL. D., Professor of Pathology, Johns Hopkins University, Baltimore, Md. (47). 1900. **H K**
- Weld, Fred. C., care Lowell Bleachery, Lowell, Mass. (58). **C**
- *Weld, Laenas Gifford, Dean, College of Liberal Arts, State University of Iowa, Iowa City, Iowa. (41). 1895. **A**
- Weld, Lewis H., Teacher of Biology, Northwestern Academy, Evanston, Ill. (58). **F G**
- Welin, John Eric, Professor of Physics and Chemistry, Bethany College, Lindsborg, Kans. (50). **B C**
- Welker, William Henry, Ph. D., Robert Hare Laboratory of Chemistry, University of Pennsylvania, Philadelphia, Pa. (55). **C**
- Weller, Miss Annie L., Charleston, Ill. (60). **A**
- *Weller, Stuart, Associate Professor of Paleontologic Geology, University of Chicago, Chicago, Ill. (54). 1906. **E F**
- Welles, Francis R., 92 Avenue Henri Martin, Paris France. (60). **D**
- Welles, Miss Marion, 419 College Ave., De Kalb, Ill. (60). **A**
- Wellman, Dr. F. Creighton, Cuiado de Senhores, Silva and Lopes (via Lisbon), Benguela, Africa. (58).
- Wells, David Collin, Professor of Sociology, Dartmouth College, Hanover, N. H. (58). **I**
- Wells, David W., M. D., The Westminster, Copley Square, Boston, Mass. (60). **K**
- Wells, Eliab Horatio, M. D., Professor of Natural Science, Baylor Female College, Belton, Tex. (50). **A D**
- Wells, Frederick Latimer, 116 South Clinton St., Chicago, Ill. (58).
- Wells, Frederic Lyman, Ph. D., McLean Hospital, Waverly, Mass. (54). **H K**
- Wells, George Augustus, E. E., M. E., Chief Engineer, Adams Express Co., 61 Broadway, New York, N. Y. (58). **D**
- Wells, H. Edward, Washington and Jefferson College, Washington, Pa. (54). **C**
- *Wells, Harry Gideon, M. D., Ph. D., Assistant Professor of Pathology, University of Chicago, Chicago, Ill. (57). 1910. **K**
- Wells, Professor William E., 820 East University Ave., Ann Arbor, Mich. (60). **B E G**
- WELSH, FRANCIS RALSTON, 328 Chestnut St., Philadelphia, Pa. (51).
- Welsh, Lilian, M. D., The Arundel, North Charles St., Baltimore, Md. (60). **K**
- Welsh, Thomas Whitney Benson, Department of Chemistry, Cornell University, Ithaca, N. Y. (61). **C**
- *Wendell, Oliver Clinton, Assistant Professor of Astronomy, Harvard College Observatory, Cambridge, Mass. (56). 1908. **A**
- Wending, Hon. Geo. R., Charlestown, W. Va. (52). **I**
- Wenner, Frank, Ph. D., Bureau of Standards, Washington, D. C. (54). **B**
- Wentworth, Irving Houghton, Matehuala, S. L. P., Mexico. (54).

MEMBERS AND FELLOWS.

- Wentworth, Walter V., Great Works, Me. (60). **C**
 Werk, Louis, Werk Place, Westwood, Cincinnati, Ohio. (56).
 *Wesbrook, Frank Fairchild, M. D., Dean, College of Medicine and Surgery, University of Minnesota, Minneapolis, Minn. (54). 1906. **K**
 Wescott, Cassius D., M. D., 31 Washington St., Chicago, Ill. (60). **K**
 Wescott, William Carter, M. D., cor. Pacific and Delaware Aves., Atlantic City, N. J. (58). **C K**
 Wesendonck, Walter, 86 Worth St., New York, N. Y. (57). **IL**
 Wesener, John A., M. D., 103 State St., Chicago, Ill. (58). **C**
 Wessler, Harry,.....(57). **K**
 Wesson, David, Manager, Technical Department, Southern Cotton Oil Co., 24 Broad St., New York, N. Y. (50). **C**
 West, Augustus Price, Ph. D., 227 West Monument St., Baltimore, Md. (55).
 West, Rodney Mott, 2128 Knapp St., St. Paul, Minn. (60). **C**
 West, Thomas Dyson, M. E., care The West Steel and Iron Casting Co., Cleveland, Ohio. (51). **D**
 Westbrook, Richard Ward, M. D., 1145 Dean St., Brooklyn, N. Y. (60).
 Westerman, P. B., Oakdale, Cal. (61).
 Westervelt, William Y., E. M., 351 West 114th St., New York, N. Y. (60). **K**
 Westfall, W. D. A., Ph. D., Assistant Professor of Mathematics, University of Missouri, Columbia, Mo. (60). **A**
 *Westgate, Lewis Gardner, Ph. D., Professor of Geology, Ohio Wesleyan University, Delaware, Ohio. (51). 1906. **E**
 *WESTINGHOUSE, GEORGE, Pittsburg, Pa. (50). 1902. **D**
 Westinghouse, Henry Herman, 165 Broadway, New York, N. Y. (51). **D**
 Weston, David Brainard, Sharon, Mass. (57). **CD**
 Weston, Edmund B., C. E., Box 1316, Providence, R. I. (60). **D**
 *Weston, Edward, LL. D., 645 High St., Newark, N. J. (33). 1887. **BCD**
 Wetherill, Henry Emerson, M. D., 3734 Walnut St., Philadelphia, Pa. (53). **K**
 Wetzel, I. A., 122 West High St., Sycamore, Ill. (60). **A**
 Wetzel, Reinhard A., Columbia University, New York, N. Y. (53). **AB**
 Wetzler, Joseph, care Jefferson Wetzler, 1123 Broadway, New York, N. Y. (35).
 *Weysse, Arthur Wisswald, Ph. D., Professor of Biology, Boston University, Boston, Mass. (52). 1905. **FK**
 Wheatland, Marcus F., M. D., 84 John St., Newport, R. I. (51). **HK**
 *Wheeler, Alvin Sawyer, Ph. D., Associate Professor of Chemistry, University of North Carolina, Chapel Hill, N. C. (50). 1901. **C**
 Wheeler, C. G., 1401 Masonic Temple, Chicago, Ill. (60). **C**
 Wheeler, Charles A., Connecticut Agricultural College, Storrs, Conn. (61). **L**
 Wheeler, Charles Van Cise, M. E., 1609 16th St. N. W., Washington, D. C. (60). **D**

MEMBERS AND FELLOWS.

- *Wheeler, Henry Lord, Ph. D., Professor of Chemistry, Sheffield Scientific School, Yale University, New Haven, Conn. (50). 1901. **C**
- Wheeler, Herbert Locke, 12 West 46th St., New York, N. Y. (57). **K**
- *Wheeler, Homer Jay, Ph. D., Director and Chemist, Rhode Island Experiment Station, Kingston, R. I. (54). 1909. **CE**
- Wheeler, Horace Leslie, (52). **AE**
- *Wheeler, L. P., 124 Linden St., New Haven, Conn. (60). 1910. **B**
- Wheeler, Ruth, 305 Montgomery St., W. Pittston, Pa. (58). **CL**
- Wheeler, William, C. E., Concord, Mass. (41). **D**
- *Wheeler, William Morton, Ph. D., Bussey Institution, Forest Hills, Boston, Mass. (50). 1901. **FH**
- Wheelock, Raymond P., E. M., care Quartette Mining Co., Searchlight, Nev. (58). **D**
- WHEELOCK, WM. E., M. D., Morristown, N. J. (57). **K**
- Wheelwright, Wm. D., Portland, Oregon. (57). **AI**
- WHELPLEY, HENRY MILTON, M. D., Professor of Materia Medica and Pharmacy, Washington University, St. Louis, Mo. (52). **HK**
- Whelpley, James D., Cosmos Club, Washington, D. C. (52). **I**
- Wherry, Edgar Theodore, 1729 Norris St., Philadelphia, Pa. (57). **CE**
- *Whetzel, Herbert Hice, Assistant Professor of Botany, New York State College of Agriculture, Forest Home, Ithaca, N. Y. (56). 1908. **G**
- *Whipple, George Chandler, Consulting Engineer, 103 Park Ave., New York, N. Y. (54). 1906. **CD**
- Whipple, George H., M. D., Johns Hopkins Hospital, Baltimore, Md. (60). **FK**
- Whipple, Guy Montrose, Ph. D., Assistant Professor of Education, Cornell University, Ithaca, N. Y. (58). **HL**
- Whitaker, De Berniere, E. M., care Juragua Iron Co., Firmeza, Santiago, Cuba. (60). **D**
- Whitbeck, John F. W., M. D., 255 Park Ave., Rochester, N. Y. (60). **K**
- Whitcomb, Henry Donald, C. E., 6 North 5th St., Richmond, Va. (58). **D**
- Whitcomb, William Henry, Associate Professor of Chemistry, Miami University, Oxford, Ohio. (58). **C**
- White, Charles Henry, Medical Director, U. S. N., Retired, Center Sandwich, N. H. (34). **CH**
- *White, David, U. S. National Museum, Washington, D. C. (40). 1892. **EG**
- *White, Henry Clay, Ph. D., LL. D., University of Georgia, Athens, Ga. (29). 1885. **C**
- *White, Henry Seeley, Ph. D., Professor of Mathematics, Vassar College, Poughkeepsie, N. Y. (58). 1909. **A**
- *White, Horace, LL. D., Editor, *New York Evening Post*, 18 West 69th St., New York, N. Y. (50). 1901. **I**
- *WHITE, ISRAEL C., Ph. D., State Geologist of West Virginia, Morgantown, W. Va. (25). 1882. **E**

MEMBERS AND FELLOWS.

- White, J. A., 115 Franklin Place, South Bend, Ind. (58). **C**
- *White, John, Ph. D., Professor of Chemistry, Rose Polytechnic Institute, Terre Haute, Ind. (58). 1910. **C**
- White, Laura Bradstreet, 29 Wallingford Road, Brighton, Mass. (60). **C**
- White, Lazarus, C. E., Stone Ridge, N. Y. (60). **D**
- White, LeRoy S., 19 Buckingham Ave., Waterbury, Conn. (23).
- White, Linden G., E. E., General Superintendent, Columbus Railway and Light Co., Columbus, Ohio. (60). **D**
- White, Mrs. N. G., 1615 New Hampshire Ave. N. W., Washington, D. C. (52).
- White, Orland Emile, Assistant in Botany, South Dakota State College, Brookings, S. D. (61). **G**
- White, Oscar W., 1116 F St. N. W., Washington, D. C. (52). **D**
- White, Richard J., 10 South St., Baltimore, Md. (60).
- White, Walter Henry, M. D., 220 Marlborough St., Boston, Mass. (51). **K**
- White, William E., M. D., Lyons, Wis. (60). **K**
- White, William T., 508 Broad St., Knoxville, Tenn. (58). **A C E F G L**
- Whitehead, Richard Henry, M. D., Dean, Medical Department, University of Virginia, Charlottesville, Va. (58). **K**
- Whitehorne, Wm. Risby, Ph. D., Professor of Physics, Bates College, Lewiston, Me. (52). **B C**
- *Whitfield, J. Edward, 406 Locust St., Philadelphia, Pa. (44). 1896. **C**
- *Whitford, Harry Nichols, Ph. D., Bureau of Forestry, Manila, P. I. (54). 1909. **G**
- Whiting, Chas. Allen, M. D., 70 West 47th St., New York, N. Y. (57). **K**
- Whiting, Henry Augustus, M. D., 33 West Mt. Royal Ave., Baltimore, Md. (60). **K**
- *Whiting, Miss Sarah F., Professor of Physics and Astronomy, Wellesley College, Wellesley, Mass. (31). 1883. **A B**
- Whiting, Stephen B., M. E., 11 Ware St., Cambridge, Mass. (33). **D**
- Whitman, Alfred A., 305 West 78th St., New York, N. Y. (57).
- *Whitman, Charles Otis, Ph. D., Professor of Zoology, University of Chicago, Chicago, Ill. (43). 1908. **F**
- Whitman, Prof. E. C., Canso, Nova Scotia. (60).
- *Whitman, Frank P., Professor of Physics, Adelbert College, Cleveland, Ohio. (33). 1885. **A B**
- Whitman, Ralph, C. E., Bureau of Yards and Docks, Navy Department, Washington, D. C. (60). **D**
- Whitmore, Francis E., Curator, Cortland Science Club, Cortland, N. Y. (54).
- Whitmore, John Edward, M. D., 355 East Utica St., Buffalo, N. Y. (60). **K**
- Whitmore, Lawrence H., E. M., Box 163, Bulawayo, Rhodesia, South Africa. (60). **D**
- Whitnall, Harold Orville, Assistant Professor of Mineralogy and Economic Geology, Colgate University, Hamilton, N. Y. (61). **E**

- Whitney, David Day, South College, Middletown, Conn. (60). **F**
- *Whitney, Miss Mary W., Vassar College Observatory, Poughkeepsie, N. Y. (47). 1900. **A**
- Whitney, Paul C., U. S. Coast and Geodetic Survey, Washington, D. C. (60). **E**
- Whitney, Solon Franklin, 9 Garfield St., Watertown, Mass. (52).
- Whitson, Andrew Robinson, 1920 Arlington Place, Madison, Wis. (58).
- B C**
- *Whittelsey, Theodore, Rubber Regenerating Co., Mishawaka, Ind. (53). 1906. **C**
- Whittemore, George W., E. E., 284 New York Ave., Brooklyn, N. Y. (60). **D**
- Whittier, Charles T., 322 Warren St., Jersey City, N. J. (58). **C**
- Whittier, Frank Nathaniel, M. D., Professor of Pathology and Bacteriology, Bowdoin College, Brunswick, Me. (54). **K**
- Wiard, Martin S., 21 Walnut St., New Britain, Conn. (60). **A**
- Wick, Frances G., Simmons College, Boston, Mass. (60). **B**
- Wickersham, Judge James, U. S. District Court, Fairbanks, Alaska. (58). **H**
- Wickes, L. Webster, E. M., 818 Story Building, Los Angeles, Cal. (58).
- D**
- *Wickham, Henry Frederick, Professor of Entomology, State University of Iowa, Iowa City, Iowa. (54). 1908. **F**
- Wickhorst, Max H., Engineer of Tests, C. B. and Q. R.R., Aurora, Ill. (60). **D**
- Wicks, M. B., 1821 North 18th St., Philadelphia, Pa. (60). **A**
- Widtsoe, John Andreas, Ph. D., Utah Agricultural College, Logan, Utah. (60). **C**
- Wiechmann, Ferdinand Gerhard, Ph. D., 24 State St., New York, N. Y. (50). **F K**
- Wiedemann, H. Edmund, 721 Holland Bldg., St. Louis, Mo. (58). **C**
- *Wiegand, Karl McKay, Ph. D., Associate Professor of Botany, Wellesley College, Wellesley, Mass. (45). 1899 **G**
- Wieland, Charles F., M. E., 911 Mutual Savings Bank Building, San Francisco, Cal. (60). **D**
- Wieman, Harry Lewis, Laboratory Assistant in Zoology, University of Cincinnati, Cincinnati, Ohio. (58). **F**
- Wiener, Alex C., M. D., 100 State St., Chicago, Ill. (58). **K**
- Wiener, Solomon, M. D., 67 West 89th St., New York, N. Y. (60). **K**
- Wigglesworth, Edward, 188 Beacon St., Boston, Mass. (60).
- WIGGLESWORTH, GEORGE, 53 State St., Boston, Mass. (60).
- Wight, Ambrose Benson, 5735 West Lake St., Chicago, Ill. (58).
- Wight, William F., U. S. Department of Agriculture, Washington, D. C. (54). **C**
- Wightman, Merle J., E. E., 302 Broadway, New York, N. Y. (50). **D**
- Wilbert, Martin I., Hygienic Laboratory, 25th and E Sts. N. W., Washington, D. C. (58). **C**

MEMBERS AND FELLOWS.

- Wilbour, Mrs. Charlotte B., 40 Central Park, South, New York, N. Y. (28).
- *Wilbur, Albert B., Middleton, N. Y. (23). 1874. **E**
- *Wilbur, Ray Lyman, M. D., Assistant Professor of Physiology, Leland Stanford Junior University, Stanford University, Cal. (50). 1901. **F K**
- Wilcox, Mrs. Aaron Morley, The Arlington, Washington, D. C. (52). **I**
- *Wilcox, Edwin Mead, Ph. D., Professor of Agricultural Botany, University of Nebraska, Lincoln, Nebr. (50). 1901. **G**
- Wilcox, Miss Emily T., Middletown, Conn. (33). **B**
- *Wilcox, Guy Maurice, Professor of Physics, Armour Institute of Technology, Chicago, Ill. (53). 1909. **B**
- Wilcox, Reynold Webb, M. D., LL.D., 679 Madison Ave., New York, N. Y. (60). **K**
- *Wilcox, Wendell Garrett, Professor of Chemistry, Alfred University, Alfred, N. Y. (56). 1909. **C**
- Wilczynski, Ernst Julius, Ph. D., Associate Professor of Mathematics, University of Chicago, Chicago, Ill. (60). **A**
- Wilde, Norman, Ph. D., Professor of Philosophy, University of Minnesota, Minneapolis, Minn. (60). **H**
- *Wilder, Burt Green, M. D., Professor Emeritus of Neurology and Vertebrate Zoology, Cornell University, Ithaca, N. Y. (51). 1902. **F**
- *Wilder, Burt Green, M. D., Professor of Neurology and Vertebrate Zoology, Cornell University, Ithaca, N. Y. (51). 1902. **F**
- Wilder, Gerrit P., 1930 Walakaa St., Honolulu, Hawaii. (60). **G**
- Wilder, Wm. H., M. D., 5811 Monroe Ave., Chicago, Ill. (58). **K**
- Wildman, Edward Embree, 214 St. Mark's Square, Philadelphia, Pa. (57).
- Wiley, Andrew Jackson, C. E., Boise, Idaho. (51). **D**
- *Wiley, Harvey Washington, Ph. D., Chief, Bureau of Chemistry, U. S. Department of Agriculture, Washington, D. C. (21). 1874. **BCHIKL**
- Wiley, Hugh Lemuel, C. E., (60). **D**
- Wiley, Walter H., E. M., 367 South Bonnie Brae St., Los Angeles, Cal. (60). **D**
- *Wiley, William Halstead, C. E., 43 East 19th St., New York, N. Y. (50). 1906. **D E**
- Wilkins, Miss Lewanna, 1414 Girard St., Washington, D. C. (52). **F G L**
- *Wilkinson, Levi Washington, Professor of Industrial and Sugar Chemistry, Tulane University, New Orleans, La. (50). 1903. **C**
- Willard, Hobart Hurd, 802 Monroe St., Ann Arbor, Mich. (58). **C**
- *Willard, Julius Terrass, Professor of Chemistry, Kansas State Agricultural College, Manhattan, Kans. (50). 1906. **C**
- *Willcox, Mary Alice, Ph. D., Malden, Mass. (50). 1901. **F**
- Willcox, Oswin W., 10 Lincoln Ave., Dover, N. J. (58). **C**
- *Willcox, Walter Francis, Ph. D., Professor of Political Economy and Statistics, Cornell University, Ithaca, N. Y. (50). 1901. **I**
- Wille, Louis G., M. D., Box 224, New Braunfels, Texas. (60). **K**

- Willetts, Ernest W., M. D., Pathologist to Pennsylvania Hospital, 5101 Liberty Ave., Pittsburg, Pa. (58). **K**
- Williams, Anna Wessels, M. D., 549 Riverside Drive, New York, N. Y. (56). **K**
- *Williams, Benezette, 153 La Salle St., Chicago, Ill. (33). 1887. **D**
- *Williams, Charles H., M. D., 1069 Boylston St., Boston, Mass. (22). 1874. **B K**
- Williams, Charles Mallory, M. D., 48 East 49th St., New York, N. Y. (57). **H K L**
- Williams, Mrs. Chauncey P., 284 State St., Albany, N. Y. (52).
- *Williams, Clarke Benedict, Professor of Mathematics, Kalamazoo College, Kalamazoo, Mich. (54). 1906. **A**
- *Williams, Prof. Edw. H., Jr., Woodstock, Vt. (25). 1894. **E**
- *Williams, Francis H., M. D., 505 Beacon St., Boston, Mass. (29). 1890. **K**
- Williams, Frank Blair, Ph. D., Clark University, Worcester, Mass. (53). **D**
- Williams, Frank H., Brownsville, Texas. (50). **E**
- Williams, G. C. F., Hartford, Conn. (60). **I**
- Williams, Gardner F., LL. D., 2201 R St., Washington, D. C. (60). **D**
- Williams, Guy Yandell, Associate Professor of Chemistry, University of Oklahoma, Norman, Okla. (58). **B C**
- Williams, Henry J., E. M., 161 Tremont St., Boston, Mass. (60). **D**
- *Williams, Henry Shaler, Ph. D., Professor of Geology, Cornell University, Ithaca, N. Y. (18). 1882. **E**
- *Williams, Herbert U., M. D., Professor of Pathology and Bacteriology, University of Buffalo, Buffalo, N. Y. (51). 1906. **H K**
- *Williams, Ira Abraham, Associate Professor of Geology and Mining Engineering, Iowa State College, Ames, Iowa. (52). 1908. **D E**
- Williams, John C., 221 Orchard St., Ridgway, Pa. (51). **E G**
- Williams, John Edward, Ph. D., Professor of Mathematics, Virginia Polytechnic Institute, Blacksburg, Va. (58). **A**
- Williams, John T., 780 Madison Ave., New York, N. Y. (57). **A C D**
- *Williams, J. Whitridge, M. D., Professor of Obstetrics, Johns Hopkins University, Baltimore, Md. (50). 1901. **K**
- Williams, Miss Katharine I., Llandaff House, Pembroke Vale, Clifton, Bristol, England. (58). **D**
- Williams, Leon Franklin, Ph. D., North Carolina College of Agriculture and Mechanic Arts, West Raleigh, N. C. (58). **C**
- *Williams, Leonard Worcester, Ph. D., Harvard Medical School, Boston, Mass. (52). 1906. **F**
- Williams, Mabel Clare, Ph. D., Instructor in Psychology, State University of Iowa, Iowa City, Iowa. (52). **H L**
- Williams, Martha R., M. D., Colorado Building, 9th and Vine Sts., Cincinnati, Ohio. (60). **K**
- Williams, Percy Frederic, Professor of Horticulture, Alabama Polytechnic Institute, Auburn, Ala. (61). **G**

MEMBERS AND FELLOWS.

- Williams, R. Lancaster, Seaboard Air Line Railway, Baltimore, Md. (60).
- Williams, Roland H., Teachers College, 120th St., New York, N. Y. (60).
A C
- *Williams, Stephen Riggs, Ph. D., Professor of Biology and Geology, Miami University, Oxford, Ohio. (50). 1906. **E F**
- Williams, Mrs. Sydney M., Wellesley, Mass. (60).
- Williams, T. S., Huntington, Long Island, N. Y. (60). **I**
- Williams, Thornton R., M. D., Punxsatawney, Pa. (60). **K**
- Williamson, C. S., Jr., Box 210, Columbia, Tenn. (60). **C**
- *Williamson, Edward Bruce, Bluffton, Ind. (50). 1906. **F**
- Williamson, Henry Dale, E. M., Rising Sun Petroleum Co., Yokohama, Japan. (60). **D**
- Williamson, Homer D., M. D., Bank St., Lorain, Ohio. (51). **K**
- Williamson, Mrs. M. Burton, 2343 Ocean View Ave., Los Angeles, Cal. (44). **F H**
- Williamson, Theresa Gertrude, Hannah More Academy, Reisterstown, Md. (58). **CG**
- Willing, Mark Skinner, 630 Rush St., Chicago, Ill. (58).
- Willing, Thomas Nathaniel, Regina, Saskatchewan, Canada. (58). **F**
- *Willis, Bailey, U. S. Geological Survey, Washington, D. C. (36). 1890. **E**
- Willis, Park Weed, M. D., 1256 Empire Building, Seattle, Wash. (60). **K**
- *Williston, Prof. Arthur Lyman, Director, Department of Science and Technology, Pratt Institute, Brooklyn, N. Y. (51). 1906. **D**
- Williston, Samuel, 577 Belmont St., Belmont, Mass. (60).
- *Williston, Samuel Wendell, M. D., Ph. D., Professor of Paleontology, University of Chicago, Chicago, Ill. (51). 1902. **F K**
- *Willoughby, Charles C., Peabody Museum, Cambridge, Mass. (45). 1897. **H**
- *Wills, Dr. Albert P., Professor of Mathematical Physics, Columbia University, New York, N. Y. (53). 1906. **AB**
- Wills, Joseph Lanson, 133 Midwood St., Brooklyn, N. Y. (50). **BCG**
- *Willson, Frederick Newton, C. E., Professor of Graphics, Princeton, N. J. (33). 1887. **AD**
- Willson, Mortimer, M. D., 6th and Water Sts., Port Huron, Mich. (50). **AFK**
- *Willson, Robert W., 64 Brattle St., Cambridge, Mass. (30). 1890. **AB**
- WILMARTH, MRS. HENRY D., West Boxford, Mass. (40).
- Wilmore, John Jenkins, Dean, School of Engineering, Alabama Polytechnic Institute, Auburn, Ala. (51). **D**
- *Wilson, Alfred W. G., E. M., Department of Mines, Ottawa, Canada. (60). 1910. **DE**
- *Wilson, Charles Branch, Professor of Biology, Johns Hopkins University, Baltimore, Md. (52). 1906. **F**
- *Wilson, Delonza Tate, Ph. D., Assistant Professor of Mathematics and Astronomy, Case School of Applied Science, Cleveland, Ohio. (53). 1906. **A**

- *Wilson, Edmund Beecher, Ph. D., LL. D.; Professor of Zoology, Columbia University, New York, N. Y. (49). 1900. **F**
- *Wilson, Francis Daniel, Ph. D., Professor of Chemistry, Virginia Polytechnic Institute, Blacksburg, Va. (57). 1909. **C**
- Wilson, Guy West, Department of Biology, Upper Iowa University, Fayette, Iowa. (58). **G**
- Wilson, H. P., M. D., Whittier, Cal. (60). **K**
- Wilson, Harold Albert, McGill University, Montreal, Can. (61). **B**
- *Wilson, Henry Van Peters, Ph. D., Professor of Zoology, University of North Carolina, Chapel Hill, N. C. (50). 1901. **F**
- WILSON, J. HOWARD, Castine, Me. (57). **E H**
- Wilson, James Meredith, Assistant Professor of Histology and Embryology, St. Louis University, St. Louis, Mo. (58). **C F**
- Wilson, John C., Cosmos Club, Washington, D. C. (49). **I**
- *Wilson, John Gordon, Assistant Professor of Anatomy, Northwestern University Medical College, Chicago, Ill. (58). 1908. **F K**
- Wilson, Miss Margaret B., 72 East 77th St., New York, N. Y. (57). **H K**
- *Wilson, Norman Richard, Lecturer in Mathematics, Wesley College, Winnepeg, Manitoba, Canada. (55). 1907. **A**
- Wilson, Robert, Jr., M. D., 165 Rutledge Ave., Charleston, S. C. (60). **K**
- *Wilson, Robert N., Blood Agency, Macleod, Alberta, Canada. (42). 1895. **H**
- Wilson, Robert N., Guilford College, N. C. (60). **C**
- Wilson, Thomas, The Aberdeen, St. Paul, Minn. (60).
- Wilson, Win. Lawrence, M. E., 915 Old Colony Building, Chicago, Ill. (58). **D**
- *Wilson, Dr. William Powell, Director, Philadelphia Museums, Philadelphia, Pa. (38). 1889. **G**
- Wily, James Hunter, E. E., Department of Physics, Lehigh University, South Bethlehem, Pa. (60). **B D**
- Wimpfheimer, Chas. A., 131-137 Spring St., New York, N. Y. (57).
- *Winchell, Alexander Newton, Professor of Mineralogy and Petrology, University of Wisconsin, Madison, Wis. (50). 1904. **C E**
- *Winchell, Horace Vaughn, 505 Palace Building, Minneapolis, Minn. (34). 1890. **C E**
- *Winchell, Prof. Newton Horace, 501 East River Parkway, Minneapolis, Minn. (10). 1874. **E H**
- Windesheim, Gustave, M. D., 255 Main St., Kenosha, Wis. (51). **H K**
- Wing, Henry Hiram, Professor of Animal Husbandry, Cornell University, Ithaca, N. Y. (56). **F**
- Wingerter, Charles A., M. D., 75 Twelfth St., Wheeling, W. Va. (60). **K**
- Winne, Charles K., Jr., M. D., 180 Washington Ave., Albany, N. Y. (60). **K**
- *Winslow, Charles Edward Amory, Associate Professor of Biology, College of the City of New York, New York, N. Y., (51). 1903. **F K**
- Winslow, Mrs. C. E. A., 157 Walnut St., Brookline, Mass. (52). **F**

MEMBERS AND FELLOWS.

- Winslow, Guy Monroe, Principal, Lasell Seminary, Auburndale, Mass. (58). **F K L**
- Winston, Isaac, U. S. Coast and Geodetic Survey, Washington, D. C. (55). **A**
- Winter, Col. Mahlon A., 14th and U Sts. N. W., Washington, D. C. (52).
D E I K
- *Winterhalter, Capt. A. G., U. S. S. Louisiana, U. S. N., care Postmaster, New York, N. Y. (37). 1893. **A**
- Winton, Will McClain, Professor of Biology, State Normal School, Edmonds, Okla. (58). **E F G**
- Wintringham, J. P., E. E., President, Department of Microcopy, Brooklyn Institute, Brooklyn, N. Y. (60). **A D**
- WIRTNER, REV. M., Penns Station, Pa. (58). **F**
- Wiser, Frank C., M. D., 10 North Second Ave., Phoenix, Ariz. (60). **K**
- *Wissler, Clark, Ph. D., Curator of Anthropology, American Museum of Natural History, New York, N. Y. (54). 1906. **H**
- Wister, Jones, E. M., 1819 Walnut St., Philadelphia, Pa. (60). **B E**
- *Withers, W. A., Professor of Chemistry, North Carolina College of Agriculture and Mechanic Arts, Raleigh, N. C. (33). 1891. **C**
- Witherspoon, Thomas Carey, M. D., 307 West Granite St., Butte, Mont. (58). **K**
- *Withrow, James Renwick, Ohio State University, Columbus, Ohio. (60). 1910. **C**
- Witmer, Joseph Franklin, C. E., Chapin Block, Buffalo, N. Y. (60). **D**
- *Witmer, Lightner, Ph. D., Assistant Professor of Psychology, University of Pennsylvania, Philadelphia, Pa. (46). 1905. **H**
- Witmer, Luther F., 2923 Macomb St., Washington, D. C. (60). **C**
- Witte, Max Ernest, M. D., Superintendent, Clarinda State Hospital, Clarinda, Iowa. (51). **H K**
- *Witthaus, Rudolph August, M. D., 55 West 33d St., New York, N. Y. (35). 1890. **C K**
- Wixford, John F., 2223 North Ninth St., St. Louis, Mo. (58). **D**
- Wobus, Reinhard E., M. D., 3440 North Ninth St., St. Louis, Mo. (60).
K
- *Woelfel, Albert, M. D., Department of Physiology, University of Chicago, Chicago, Ill. (54). 1910. **K**
- Woglum, Russell Sage, Whittier, Cal. (54). **F**
- *Wolcott, Edson Roy, 817 Sheridan Road, Chicago, Ill. (54). 1907.
B C D
- Wolcott, Robert Henry, M. D., Professor of Anatomy, University of Nebraska, Lincoln, Nebr. (60). **K**
- Wolcott, William Prescott, Readville, Mass. (60).
- Wolf, Frederick Adolph, Tutor in Botany, University of Texas, Austin, Tex. (60). **G**
- Wolfe, Elmer Ellsworth, Ph. D., Principal of the Academy, Marietta College, Marietta, Ohio. (51). **B C L**

- *Wolff, Frank A., Ph. D., Bureau of Standards, Washington, D. C. (47).
1900. **B**
- Wolff, Henry Albert, M. D., 501 West 138th St., New York, N. Y. (57).
K
- *Wolff, John Eliot, Ph. D., University Museum, Cambridge, Mass. (36).
1894. **E**
- Wolff, Mark A., E. M., 6 Hanover Terrace, Holland Park, West, London,
England. (60). **D**
- Wolfstein, David I., M. D., 22 West 7th St., Cincinnati, Ohio. (60). **K**
- *Woll, Fritz Wilhelm, Ph. D., Professor of Agricultural Chemistry, Uni-
versity of Wisconsin, Madison, Wis. (42). 1897. **C**
- Wolverton, Byron C., 220 West 49th St., New York, N. Y. (50). **D**
- Wood, A. E., Teacher of Science, Jackson High School, Jackson, Tenn.
(61). **L**
- Wood, Alvinus Brier, C. E., Cottage Grove, Ore. (60). **D**
- *Wood, Arthur Julius, Associate Professor of Experimental Engineering,
Pennsylvania State College, State College, Pa. (51). 1905. **B D**
- Wood, Casey Albert, M. D., President, American Academy of Medicine,
72 Madison St., Chicago, Ill. (56). **F K**
- Wood, Mrs. Cynthia A., 117 West 58th St., New York, N. Y. (43).
- Wood, Miss Elvira, 36 Wellington St., Waltham, Mass. (47). **E**
- *WOOD, FRANCIS CARTER, Professor of Chemical Pathology, Columbia
University, New York, N. Y. (57). 1908. **K**
- Wood, Henry A. Wise, 1 Madison Ave., New York, N. Y. (57).
- Wood, Herbert Carroll, East High School, Cleveland, Ohio. (60). **B E L**
- Wood, Horatio C., Jr., M. D., 434 South 44th St., Philadelphia, Pa. (58).
K
- *Wood, Stuart, Ph. D., 400 Chestnut St., Philadelphia, Pa. (51). 1906. **I**
- *Wood, Thomas Dennison, M. D., Professor of Physical Education,
Teachers College, Columbia University, New York, N. Y. (51).
1902. **K**
- WOOD, WALTER, 400 Chestnut St., Philadelphia, Pa. (33). **F I**
- Wood, Walter Hallock, Principal, Oakwood Seminary, Union Springs
N. Y. (58). **A**
- Woodard, Silas H., C. E., Scarsdale, N. Y. (60). **D**
- *Woodbridge, Frederick J. E., LL. D., Professor of Philosophy, Columbia
University, New York, N. Y. (52). 1905. **H**
- Woodbridge, Samuel Homer, Associate Professor of Heating and Ven-
tilation, Massachusetts Institute of Technology, Boston, Mass. (56).
D
- *Woodbury, Charles J. H., Consulting Engineer, 45 Milk St., Boston, Mass.
(29). 1884. **B D**
- Woodbury, Frank, M. D., 218 South 16th St., Philadelphia, Pa. (52).
H K
- Woodbury, Frederick E., E. M., Box 874, Milwaukee, Wis. (60). **D**
- Woodhams, Edwin Le Grand, care A. M. Todd Co., Ltd., Kalamazoo,
Mich. (61). **C G**

MEMBERS AND FELLOWS.

- Woodhull, Alfred Alexander, Brigadier-General, U. S. A., Retired, 46 Bayard Lane, Princeton, N. J. (51). **KL**
- *Woodhull, John Francis, Ph. D., Professor of Physical Science, Columbia University, New York, N. Y. (43). 1899. **BL**
- Woodhull, Leon Richard, E. E., 1633 North 15th St., Philadelphia, Pa. (60). **D**
- Woodhull, Marianna, 540 West 122d St., New York, N. Y. (57). **I**
- Woodhull, Gen. Maxwell Van Zandt, U. S. A., 2033 G St. N. W., Washington, D. C. (52).
- Woodman, Alpheus Grant, Massachusetts Institute of Technology, Boston, Mass. (60). **C**
- Woodman, Joseph Edmund, Professor of Geology and Mineralogy, New York University, University Heights, N. Y. (56). **EIL**
- Woodruff, Major Charles Edward, Medical Corps, U. S. A., Manila, P. I. (54). **HI**
- *Woodruff, Lorande Loss, Ph. D., Biological Laboratory, Yale University, New Haven, Conn. (52). 1908. **FK**
- *Woods, Albert F., Dean and Director, Department of Agriculture, University of Minnesota, Minneapolis, Minn. (43). 1897. **BCFGH IKL**
- *Woods, Charles Dayton, Director, Maine Agricultural Experiment Station, Orono, Me. (50). 1901. **C**
- *Woods, Frederick Adams, M. D., 1006 Beacon St., Brookline, Mass. (51). 1902. **FH**
- *Woods, Frederick Shenstone, Ph. D., Professor of Mathematics, Massachusetts Institute of Technology, Boston, Mass. (58). 1909. **AL**
- Woods, Herbert Spencer, Payette, Idaho. (58). **CL**
- Woodward, Augustus Janvier, M. D., Hotel Auburn, Cincinnati, Ohio. (57). **EK**
- *Woodward, Calvin Milton, Ph. D., Professor of Mathematics and Applied Mechanics, Washington University, St. Louis, Mo. (32). 1884. **ADI**
- *WOODWARD, R. S., Ph. D., LL. D., President, Carnegie Institution of Washington, Washington, D. C. (33). 1885. **ABD**
- *Woodward, Samuel B., M. D., 58 Pearl St., Worcester, Mass. (51). 1906. **EH**
- Woodward, Sherman M., State University of Iowa, Iowa City, Iowa. (57). **A**
- *Woodworth, C. W., Assistant Professor of Entomology, University of California, Berkeley, Cal. (50). 1906. **F**
- Woodworth, George Kean, Councillor-at-Law, 60 Congress St., Boston, Mass. (50). **BD**
- *Woodworth, Jay Backus, Assistant Professor of Geology, Harvard University, Cambridge, Mass. (54). 1906. **E**
- *Woodworth, Robert Sessions, Ph. D., Professor of Psychology, Columbia University, New York, N. Y. (49). 1901. **HK**

- *Woodworth, William McMichael, Ph. D., 149 Brattle St., Cambridge, Mass. (44). 1898. **F**
- Woolen, William Watson, 518 American Central Life Building, Indianapolis, Ind. (55). **F**
- Woolley, Andrew Feaster, C. E., care Empire Engineering Corporation, 60 Wall St., New York, N. Y. (60). **K**
- *Woolley, Paul G., M. D., Professor of Pathologic Anatomy, University of Nebraska Medical College, Omaha, Neb. (55). 1910. **C K**
- Woolworth, James G., 220 Waterman St., Providence, R. I. (60). **C**
- Wooster, Lyman Child, Ph. D., Professor of Biology and Geology, State Normal School, Emporia, Kans. (54). **E F G**
- Wooton, Elmer O., Professor of Botany, New Mexico Agricultural College, Agricultural College, New Mexico. (56) **G**
- *Worcester, Dean C., U. S. Philippine Commission, 16 Nagbajan, Manila, P. I. (46). 1903. **F H**
- Worcester, Philip George, Assistant in Geology, University of Colorado, Boulder, Colo. (60). **E**
- Worcester, Wilfred J., 137 East 37th St., New York, N. Y. (57).
- Work, Wm. R., Instructor in Electrical Department, Carnegie Technical Schools, Pittsburg, Pa. (57). **D**
- Workman, Harper M. M. D., Tracy, Minn. (60). **K**
- Wormser, Moritz, C. E., 90 Porter Place, Montclair, N. J. (60). **D**
- Worsham, Ernest Lee, State Entomologist, Atlanta, Ga. (58). **F**
- Worthen, Thomas W. D., Cheney Professor of Mathematics, Dartmouth College, Hanover, N. H. (58). **A**
- Wright, Albert Hazen, Ph. D., Instructor in Zoology, Cornell University, Ithaca, N. Y. (56). **F**
- *Wright, Arthur Williams, Ph. D., Professor of Experimental Physics, Yale University, New Haven, Conn. (14). 1874. **A B**
- Wright, Charles W., E. M., U. S. Geological Survey, Washington, D. C. (60). **D E**
- *Wright, Frederick Eugene, Ph. D., U. S. Geophysical Laboratory, Washington, D. C. (52). 1906. **B E**
- *Wright, Geo. Frederick, D. D., J.L. D., Drawer C, Oberlin, Ohio. (29). 1882. **E H**
- Wright, H. B., E. M., Pocohontas, Va. (60). **D**
- Wright, Hamilton, M. D., Metropolitan Club, Washington, D. C. (58). **K**
- Wright, Henry Wilkes, Ph. D., Professor of Philosophy, Lake Forest College, Lake Forest, Ill. (58).
- Wright, James H., M. D., 1214 Buena Vista St., Pittsburg, Pa. (60). **K**
- Wright, Jasper Heman, Mechanics Institute, Rochester, N. Y. (56). **F G**
- *Wright, John S., care Eli Lilly and Company, Indianapolis, Ind. (42). 1899. **G**
- Wright, Jonathan, M. D., 44 West 49th St., New York, N. Y. (43). **F H K**
- Wright, Reginald Ashmun, M. E., 1959 West Market St., Pottsville, Pa. (60). **D**

MEMBERS AND FELLOWS.

- Wright, Samuel St. John, M. D., 306 Hamilton Building, Akron, Ohio. (60). **K**
- *Wright, Walter Channing, Room 701, 45 Milk St., Boston, Mass. (54). 1906. **AL**
- *Wright, Walter Livingston, Jr., Professor of Mathematics, Lincoln University, Pa. (50). 1906. **AB**
- *Wrinch, Frank Sidney, Ph. D., Instructor in Experimental Psychology, University of California, Berkeley, Cal. (52). 1906. **HK**
- Wulfang, John M., 3448 Longfellow Boulevard, St. Louis, Mo. (60). **H**
- *Wulling, Frederick John, Ph. D., Dean, College of Pharmacy, University of Minnesota, Minneapolis, Minn. (58). 1910. **C**
- WUNDERLICH, FREDERICK W., M. D., 165 Remsen St., Brooklyn, N. Y. (45). **K**
- Würster, Oscar H., 411 Poplar St., Cincinnati, Ohio. (60). **C**
- Würtele, John Hunter, P. O. Box 242, Spokane, Wash. (48).
- *Wurtele, Rev. Louis C., P. O. Box 291, Acton Vale, Quebec, Canada. (11). 1875. **EH**
- Wyant, Alexander L., 141 West 85th St., New York, N. Y. (57).
- Wyatt, Francis, Ph. D., 20 Fifth Ave., New York, N. Y. (57). **CG**
- Wyeth, John Allan, M. D., 244 Lexington Ave., New York, N. Y. (60). **K**
- Wylie, Clarence Raymond, E. E., University of Cincinnati, Cincinnati, Ohio. (60). **D**
- *Wylie, Robert Bradford, Ph. D., Professor of Morphological Botany, State University of Iowa, Iowa City, Iowa. (53). 1905. **G**
- *Wyman, Walter, M. D., Surgeon-General, U. S. Public Health and Marine Hospital Service, Washington, D. C. (51). 1903. **I**
- Wynkoop, Gillett, Newburgh, N. Y. (58). **C**
- Wynkoop, Gilbert H., M. D., 4500 Sheridan Road, Chicago, Ill. (60). **K**
- *Yamanouchi, Shigeo, Ph. D., Tokyo Teachers College, Koishikawa, Tokyo, Japan. (57). 1909. **G**
- *Yanney, Benjamin Franklin, Professor of Mathematics and Astronomy, Mt. Union College, Alliance, Ohio. (51). 1906. **A**
- *Yarrow, Harry C., M. D., 814 17th St. N. W., Washington, D. C. (23). 1874. **FHK**
- Yates, James Anderson, care State Normal School, Pittsburg, Kans. (50). **BCEF**
- Yates, William H., C. E., 449 West 123d St., New York, N. Y. (60). **D**
- *Yatsu, Naohidé, Ph. D., Zoological Institute, Imperial University, Tokyo, Japan. (56). 1910. **F**
- Yeatman, Pope, E. M., Room 1714, 165 Broadway, New York, N. Y. (58). **D**
- Yeaton, Arthur C., 75 Hartley St., Portland, Me. (60). **C**
- *Yerkes, Robert Mearns, Ph. D., Assistant Professor of Comparative Psychology, Harvard University, Cambridge, Mass. (52). 1905. **FHK**
- Yoder, Albert H., Tacoma, Wash. (61). **HLK**
- Yoder, Ivan I., M. D., 1410 West 25th St., Cleveland, Ohio. (60). **K**
- Yothers, William Walter, Orlando, Fla. (55). **F**
- Youmans, Vincent J., 175 Elm Place, Mt. Vernon, N. Y. (43).

MEMBERS AND FELLOWS.

- Young, Abram Van Epps, Professor of Chemistry, Northwestern University, Evanston, Ill. (33). 1886. **BC**
- *Young, Anne Sewell, Ph. D., Professor of Astronomy, Mt. Holyoke College, South Hadley, Mass. (54). 1907. **A**
- Young, Charles I., E. E., 1115 North American Building, Philadelphia, Pa. (60). **BDL**
- Young, Douglas B., 117 Dove St., Albany, N. Y. (58). **F**
- Young, Frank B., M. D., Springdale, Ark. (60). **K**
- Young, Geo. Albert, Petrographer and Field Geologist, Geological Survey of Canada, Oatwa, Canada. (57). **E**
- Young, Gilbert A., M. E., Assistant Professor of Mechanical Engineering, Purdue University, West Lafayette, Ind. (60). **D**
- Young, Hugh Hampton, M. D., 330 North Charles St., Baltimore, Md. (53). **K**
- Young, John M., M. E., College of Hawaii, Honolulu, Hawaii. (60). **D**
- Young, Robert Thompson, Ph. D., Instructor in Biology, State University of North Dakota, University, N. Dak. (60). **F**
- *Young, Stuart Woodford, Assistant Professor of Chemistry, Leland Stanford Junior University, Stanford University, Cal. (50). 1901. **C**
- Young, William, F. M., P. O. Box 396, Prince Rupert, B. C., Canada. (60). **D**
- Yowell, Everett I., care Corbett and Griest, Station O, Cincinnati, Ohio. (60). **A**
- Zahn, George, Assistant Professor of Law, Yale University, New Haven, Conn. (53). **I**
- Zaleski, Joseph P., M. D., 4645 South Ashland Ave., Chicago, Ill. (60). **K**
- Zapffe, Carl, Box 1531, Brainerd, Minn. (58). **DE**
- Zeit, F. Robert, M. D., Head of Department of Pathology and Bacteriology, Northwestern University Medical School, Chicago, Ill. (58). **K**
- *Zeleny, Anthony, Assistant Professor of Physics, University of Minnesota, Minneapolis, Minn. (56). 1908. **B**
- *Zeleny, Charles, Ph. D., Assistant Professor of Zoology, University of Illinois, Urbana, Ill. (53). 1905. **F**
- *Zeleny, John, Ph. D., Professor of Physics, University of Minnesota, Minneapolis, Minn. (50). 1901. **B**
- Zemer, Stanley G., Head, Department of Science, Escanaba High School, Escanaba, Mich. (61). **L**
- Zerban, Fritz, Ph. D., Estacion Experimental Industrial Agricola, Tucuman, Argentine Republic, S. A. (58). **C**
- Zetek, James, Illinois State Laboratory of Natural History, Urbana, Ill. (60). **F**
- Zimmerman, John, 389 Hill St., Dubuque, Iowa. (60). **A**
- *Ziwet, Alexander, 644 South Ingalls St., Ann Arbor, Mich. (38). 1890.
- Zuber, Wm. H., Jeannette, Pa. (52). **BC**

NOTE.—The omission of an address in the foregoing list indicates that letters mailed to that last printed were returned as uncalled for. Information as to the present address of the members so indicated is requested by the PERMANENT SECRETARY.

INCORPORATED SCIENTIFIC BODIES.

[Holding membership under the provisions of Article 3 of the Constitution.]

American Geographical Society, 15 West 81st St., New York, N. Y. (60).
American Philosophical Society, 104 South Fifth St., Philadelphia, Pa. (60).

Arizona, The University of, Library, Tucson, Ariz. (60).

California, The University of, Library, Berkeley, Cal. (52).

Chicago Theological Seminary Library, Miss Florence M. Freeman, Acting Librarian, 43 Warren Ave., Chicago, Ill. (58).

Cincinnati, Public Library of, Cincinnati, Ohio. (53).

Deputy Minister, Department of Agriculture, Victoria, B. C. (60). **G**

District of Columbia, The Public Library of, Washington, D. C. (60).

Earlham College Science Club, Earlham College, Richmond, Ind. (54).

Evanston Academy of Northwestern University, Evanston, Ill. (58).

Georgetown University, Washington, D. C. (52).

Howard Memorial Library, New Orleans, La. (54).

Illinois, University of, Library, Urbana, Ill. (61).

Imperial Public Library, Tokyo, Japan. (60).

Indiana State Library, Room 47, State House, Indianapolis, Ind. (60).

Instituto Geologica Nacional, 6a del Ciprés 176, Mexico, D. F., Mexico. (60). **E**

Iowa State Teachers School, Library, Cedar Falls, Iowa. (58).

Iowa, State University of, Library, Iowa City, Iowa. (54).

Jersey City, Free Public Library of, Jersey City, N. J. (52).

Manchester Institute of Arts and Sciences, Manchester, N. H. (48).

Marietta College Library, Marietta, Ohio. (51).

Michigan State Normal College, Ypsilanti, Mich. (53).

Minnesota Dept. of Agriculture Library, University Farm, St. Paul, Minn. (61).

Mt. Carmel Scientific Society, Mt. Carmel, Ill. (50).

Mt. Holyoke College, Library of, South Hadley, Mass. (58).

Nantucket Maria Mitchell Association, The, Nantucket, Mass. (58). **A G**

Nebraska, The University of, Library, Lincoln, Nebr. (51).

NEW YORK STATE LIBRARY, James I. Wyer, Jr., Director, Albany, N. Y. (60).

New York University Library, University Heights, New York, N. Y. (60).

Ohio State University Library, Columbus, Ohio. (54).

Oregon, University of, Library, Eugene, Ore. (60).

P. M. Musser Public Library, Muscatine, Ohio. (51).

Philadelphia, The Free Library of, 1217-1221 Chestnut St., Philadelphia, Pa. (51).

Pratt Institute Free Library, Ryerson St., Brooklyn, N. Y. (52).

INCORPORATED SCIENTIFIC BODIES.

St. Agnes School, Albany, N. Y. (61).

St. Francis Xavier's College, 30 West 16th St., New York, N. Y. (52).

St. Olaf College Library, Northfield, Minn. (52).

Toronto, University of, Library, H. H. Langton, Librarian, Toronto,
Canada. (60).

Western Illinois State Normal School, Macomb, Ill. (55).

Wilmington Institute Free Library, Wilmington, Del. (52).

SUMMARY:

Corrected to August 27, 1910.

Patrons, 4; Honorary Fellow, 1; Fellows, 2395; Members, 5477; Total, 7872.

DECEASED MEMBERS.

(A list of deceased members of the Association, so far as known at the time of publishing the volume of Proceedings of the Springfield meeting, May, 1896, is given in that volume. At the Buffalo meeting, the Council directed the Permanent Secretary to omit the printing of the full list of deceased members in the annual volumes and to print only the additions to the list. Since the publication of the list printed in the Chicago Proceedings (Vol. 58), notices have been received of the decease of the following members.)

- Adams, Mary W., 477 Prospect St., New Haven, Conn. (57). Died January 23, 1909.
- Ashmead, William H., U. S. National Museum, Washington, D. C. (40). Died 1908.
- Baldwin, Henry F., Seattle, Wash. (60). Died July, 1909.
- BARKER, GEORGE FREDERICK, 3909 Locust St., Philadelphia, Pa. (13). Died May 24, 1910.
- Barker, Mrs. Martha M., 42 11th St., Lowell, Mass. (31). Died May 28, 1908.
- Barnes, Charles Reid, University of Chicago, Chicago, Ill. (33). Died February 24, 1910.
- Barnsley, George Thomas, Pittsburg, Pa. (51). Died October 23, 1909.
- Barry, Daniel E., 447 Lexington Ave., New York, N. Y. (57). Died March 12, 1910.
- Bausch, Henry, Rochester, N. Y. (41). Died March 2, 1909.
- Beach, Henry Harris Aubrey, M. D., 28 Commonwealth Ave., Boston, Mass. (50). Died June 28, 1910.
- Bicknell, George H., Omaha, Neb. (55). Died November, 1908.
- Biolley, Pablo, San Jose, Costa Rica. (56). Died 1909.
- Birch-Nord, Carl W., Chicago, Ill. (60). Died October 15, 1909.
- Blake, William Phipps, Mill Rock, New Haven, Conn. (54). Died 1910.
- Bowser, Edward A., Rutgers College, New Brunswick, N. J. (28). Died March, 1910.
- BOYE, MARTIN H., Coopersburg, Pa. (1). Died March 5, 1909.
- Brodie, William, Toronto, Canada. (58). Died August 6, 1909.
- Brooks, William Keith, Johns Hopkins University, Baltimore, Md. (52). Died November 12, 1908.
- Brown, Mrs. Robert, Observatory Place, New Haven, Conn. (17). Died October 28, 1908.

DECEASED MEMBERS.

- Buckham, Mrs. George, 29 East 29th St., New York, N. Y. (57).
Died August 11, 1908.
- Buckingham, Charles L., 38 Park Row, New York, N. Y. (28).
Died May 31, 1909.
- Burdge, Franklin, 325 West 57th St., New York, N. Y. (57). Died
September, 1908.
- CARTER, JAMES C., 277 Lexington Ave., New York, N. Y. (36). Died
1908.
- Caswell, W. H., 201 West 55th St., New York, N. Y. (50). Notified
June 25, 1910.
- Churchill, William W., Monroe, Wis. (51). Died March 24, 1910.
- Comfort, Col. Silas Gildersleeve, C. E., Pennsylvania Military College,
Chester, Pa. (58). Died July 12, 1910.
- Comstock, Brigadier General Cyrus B., New York, N. Y. (54). Died
May 29, 1910.
- Comstock, T. Griswold, 3401 Washington Ave., St. Louis, Mo. (29).
Died December 1, 1909.
- Connor, Phineas Sanborn, 215 West 9th St., Cincinnati, Ohio. (54).
Died 1909.
- CONVERSE, JOHN H., 500 North Broad St., Philadelphia, Pa. (54).
Died May 3, 1910.
- Cook, James B., Randolph Building, Memphis, Tenn. (50). Died
February 21, 1909.
- Dudley, Charles Benjamin, Altoona, Pa. (23). Died December 21,
1909.
- Eichberg, Joseph, 22 West 7th St., Cincinnati, Ohio. (55). Died
August 18, 1908.
- Eimbeck, William, Washington, D. C. (17). Died 1908.
- Emory, Hon. Frederic, Queenstown, Md. (52). Died September 20,
1908.
- ESTES DANA, Brookline, Mass. (29). Died 1909.
- Farnsworth, Philo J., Clinton, Ia. (50). Died 1909.
- Fawcett, Ezra, 233 Ely St., Alliance, Ohio. (48). Died January 23,
1908.
- FLETCHER, ANDREW, 339 West 77th St., New York, N. Y. (50). Died
1908.
- Fletcher, James, Experimental Farm, Ottawa, Canada. (31). Died
November 8, 1908.
- FRAZER, PERSIFOR, Drexel Building, Philadelphia, Pa. (24). Died
April 7, 1909.
- Fuller, Homer T., Fredonia, N. Y. (35). Died August 14, 1908.
- Fuller, Melville W., LL.D., Chief Justice, U. S. Supreme Court,
Washington, D. C. (40). Died July 4, 1910.
- Garriott, Edward B., U. S. Weather Bureau, Washington, D. C. (49).
Died May 13, 1910.

DECEASED MEMBERS.

- GIBBS, WOLCOTT, Newport, R. I. (1). Died December 9, 1908.
- Gilman, Daniel Coit, Baltimore, Md. (10). Died October 13, 1908.
- Gordon, Robert H., Cumberland, Md. (48). Died May 10, 1910.
- Gore, J. W., University of North Carolina, Chapel Hill, N. C. (51).
Died April 8, 1908.
- Graham, Andrew B., Washington, D. C. (52). Died 1909.
- Guilbeau, B. H., Louisiana State University, Baton Rouge, La. (54).
Died January 16, 1909.
- Gray, Thomas, Rose Polytechnic Institute, Terre Haute, Ind. (38).
Died January, 1909.
- Hague, James D., 18 Wall St., New York, N. Y. (50). Died
August 3, 1908.
- Hall, Edwin Bradford, 193 State St., Wellsville, N. Y. (50). Died
September 11, 1908.
- Hammond, George W., Yarmouthville, Me. (47). Died January, 1908.
- Head, William R., Hyde Park, Chicago, Ill. (38). Died May 10, 1910.
- Hirsche, Andrew J., Rector Building, Chicago, Ill. (58). Died
February 7, 1908.
- Hofmann, Ottokar, 2110 Troost Ave., Kansas City, Mo. (58). Died
December 24, 1909.
- Holbrook, Henry R., Pueblo, Col. (51). Died 1909.
- Holton, Nina Gates, U. S. Department of Agriculture, Washington,
D. C. (57). Died May 5, 1908.
- Hough, George W., Northwestern University, Evanston, Ill. (15).
Died January, 1909.
- Jackson, John H., 155 Franklin St., Fall River, Mass. (51). Died
October 27, 1908.
- James, William, Professor Emeritus of Philosophy, Harvard Univer-
sity, Cambridge, Mass. (52). Died August 26, 1910.
- Jayne, Harry W., Elkins Park, Pa. (54). Died March 7, 1910.
- Johnston, A. K. New Brighton, S. I., N. Y. (58). Died October
3, 1909.
- Jones, William, Field Museum of Natural History, Chicago, Ill. (57).
Died 1909.
- Just, John A., Syracuse, N. Y. (50). Died September 13, 1908.
- Kinley, Joseph B., 1212 Columbine St., Denver, Colo. (58). Died
May 13, 1909.
- Laidlaw, Alexander Hamilton, 58 West 53rd St., New York, N. Y.
(57). Died July 28, 1908.
- Larocque, Joseph, 40 Wall St., New York, N. Y. (57). Died June,
1908.
- Lathrop, Francis, Woodcliffe Lake, N. J. (57). Died October 18, 1909.
- Lea, Henry C., 2000 Walnut St., Philadelphia, Pa. (54). Died
October 24, 1909.
- Lee, Leslie A., Bowdoin College, Brunswick, Me. (52). Died May,
1908.

DECEASED MEMBERS.

- Linn, George A., Monongahela, Pa. (51). Died April, 1908.
- Lomb, Henry, Rochester, N. Y. (41). Died June 13, 1908.
- Lord, Franklin B., 49 Wall St., New York, N. Y. (57). Died January 27, 1908.
- Lyon, William, 608 West 62nd St., Los Angeles, Cal. (60). Died August 11, 1909.
- McKelvy, William H., Pittsburg, Pa. (50). Died December 30, 1909.
- McNulty, John J., College of the City of New York, New York, N. Y. (50). Died May 1, 1908.
- MARKOE, FRANCIS HARTMAN, 15 East 49th St., New York, N. Y. (57). Died 1908.
- Marshall, J. T., Metuchen, N. J. (60). Died January 1, 1910.
- Mason, Otis T., U. S. National Museum, Washington, D. C. (25). Died November 5, 1908.
- Maxwell, Fred. Baldwin, River Forest, Oak Park, Ill. (51). Died November 7, 1907.
- Mellor, Charles C., 319 Fifth Avenue, Pittsburg, Pa. (38). Died April 2, 1909.
- METCALF, ORLANDO, 424 Telephone Bldg., Pittsburg, Pa. (35). Died September, 1909.
- Metcalf, William, 5821 Wilkins Ave., Pittsburg, Pa. (33). Died December 5, 1909.
- Miller, Commander Frederick A., 2201 Massachusetts Ave., Washington, D. C. (52). Died November 8, 1909.
- Miller, Horace George, 189 Bowen St., Providence, R. I. (51). Died 1908.
- Mills, D. O., 15 Broad St., New York, N. Y. (58). Died January 3, 1910.
- Mitchell, Edward, 44 Wall St., New York, N. Y. (50). Died February 15, 1909.
- Montgomery, Frank Hugh, 5548 Woodlawn Ave., Chicago, Ill. (58). Died July 14, 1908.
- Moore, James W., Lafayette College, Easton, Pa. (22). Died February 28, 1909.
- Muenchehofe, Carl Wilhelm Franz, American Museum of Natural History, New York, N. Y. (58). Died November, 1909.
- Newcomb, Simon, 1620 P St., Washington, D. C. (13). Died July 11, 1909.
- Newson, Henry Byron, University of Kansas, Lawrence, Kan. (50). Died February 17, 1910.
- Nichols, Starr Hoyt, University Club, New York, N. Y. (57). Died 1909.
- Nierman, Herman G., Fort Wayne, Ind. (60). Died January 31, 1909.
- Onderdonk, Henry U., M. D., Buffalo, Wyo. (51). Died May 10, 1910.

DECEASED MEMBERS.

- O'Sullivan, Denis T., 761 Harrison St., Boston, Mass. (40). Died July 15, 1908.
- Painter, Joseph H., U. S. National Museum, Washington, D. C. (54). Died December, 1908.
- Peirce, Cyrus N., 3316 Powelton Ave., Philadelphia, Pa. (31). Died May 16, 1909.
- Penniman, George H., 1071 Fifth Ave., New York, N. Y. (49). Died June 1, 1909.
- Philips, Ferdinand, 505 North 21st St., Philadelphia, Pa. (51). Died 1909.
- Poe, John P., 100 East Lexington St., Baltimore, Md. (60). Died October 14, 1909.
- Porter, Albert B., 170 South Clinton Ave., Chicago, Ill. (53). Died April 17, 1909.
- Potter, Richard B., West Palm Beach, Fla. (51). Died July, 1909.
- Prang, Louis, 45 Centre St., Roxbury, Mass. (29). Died June 14, 1909.
- Rand, C. F., 1228 15th St., Washington, D. C. (27). Died October 13, 1908.
- Reilly, Frank W., 137 Lincoln Park Blvd., Chicago, Ill. (60). Died December 16, 1909.
- Ricketts, Howard Taylor, University of Chicago, Chicago, Ill. (58). Died May 3, 1910.
- Roark, Ruric Nevel, Eastern Kentucky Normal School, Richmond, Ky. (54). Died April 14, 1909.
- Robinson, Franklin C., Bowdoin College, Brunswick, Me. (29). Died May 25, 1910.
- Rolker, Herman F., 612 So. Paca St., Baltimore, Md. (58). Died July 24, 1910.
- Roninger, Carl, Ann Arbor, Mich. (21). Died April 19, 1907.
- Ruland, M. A. 53 Linden Ave., Flatbush, Brooklyn, N. Y. (43). Died 1908.
- Sackett, Eliza D., Cranford, N. J. (35). Died May 12, 1908.
- SAYER, WILLIAM SMITH, Agricultural College, East Lansing, Mich. (58). Died 1909.
- Schuette, J. H., Green Bay, Wisconsin. (34). Died July 21, 1908.
- Seaman, William Henry, 1424 11th Street, Washington, D. C. (23). Died June 11, 1910.
- See, Horace, 1 Broadway, New York, N. Y. (34). Died December 14, 1909.
- Serviss, Schuyler B., Gray's Hall, Cambridge, Mass. (58). Died 1909.
- Seymour, Thomas Day, Yale University, New Haven, Conn. (57). Died 1908.
- Shaw, Prof. Charles Hugh, University of Pennsylvania, Philadelphia, Pa. (52). Died August 8, 1910.
- Shears, George F., 2911 Prairie Ave., Chicago, Ill. (58). Died 1909.

DECEASED MEMBERS.

- SHRYOCK, WILLIAM KNIGHT, 21 North 7th St., Philadelphia, Pa. (54).
Died 1910.
- Slingerland, Mark Vernon, Cornell University, Ithaca, N. Y. (50).
Died March 11, 1909.
- Smillie, James D., 440 West End Ave., New York, N. Y. (60). Died
1909.
- Smith, Andrew H., Geneva, N. Y. (54). Died April 8, 1910.
- SMITH, MISS MATILDA H., 40 Library Place, Allegheny, Pa. (50).
Died October 30, 1909.
- Smith, William Thayer, Dartmouth Medical School, Hanover, N. H.
(51). Died September, 1909.
- Snow, F. H., University of Kansas, Lawrence, Kan. (29). Died
September 20, 1908.
- Sollers, Basil, 539 Carey St., Baltimore, Md. (60). Died 1909.
- Spiegelhalter, Joseph, 2166 Lafayette Ave., St. Louis, Mo. (47). Died
June, 1909.
- SPRAGUE, C. H., Malden, Mass. (29). Died 1909.
- Stearns, Robert E. C., 1025 East 18th St., Los Angeles, Cal. (18).
Died July 27, 1909.
- Steer, Justin, Washington University, St. Louis, Mo. (50). Died
June 20, 1909.
- Stringham, Irving, University of California, Berkeley, Cal. (51). Died
October 5, 1909.
- Sumner, William Graham, Yale University, New Haven, Conn. (60).
Died April 12, 1910.
- Thomas, Lancaster, 1932 Mt. Vernon St., Philadelphia, Pa. (52). Died
April 2, 1910.
- Thompson, Almon Harris, 1729 12th St., Washington, D. C. (52).
Died July 31, 1906.
- Tight, William George, University of New Mexico, Albuquerque, New
Mexico. (39). Died January 15, 1910.
- Tufts, Frank Leo, Columbia University, New York, N. Y. (50). Died
April 15, 1909.
- Valentine, Edw. P., Richmond, Va. (33). Died March 24, 1908.
- Venable, Richard Morton, LL. D., 1409 Continental Bldg., Baltimore,
Md. (60). Died July 10, 1910.
- Wade, Harold Rollins, U. S. Department of Agriculture, Washington,
D. C. (58). Died 1909.
- WALSH, THOMAS F., 21st St. and Massachusetts Ave., Washington,
D. C. (49). Died April 8, 1910.
- Warren, S. Edward, 77 Washington St., Newton, Mass. (17). Died
July 8, 1909.
- Waterhouse, James Smartt, Cumberland University, Lebanon, Tenn.
(50). Died 1908.
- West, James Alexander, Natural History Hall, Urbana, Ill. (58).
Died April 17, 1910.

DECEASED MEMBERS.

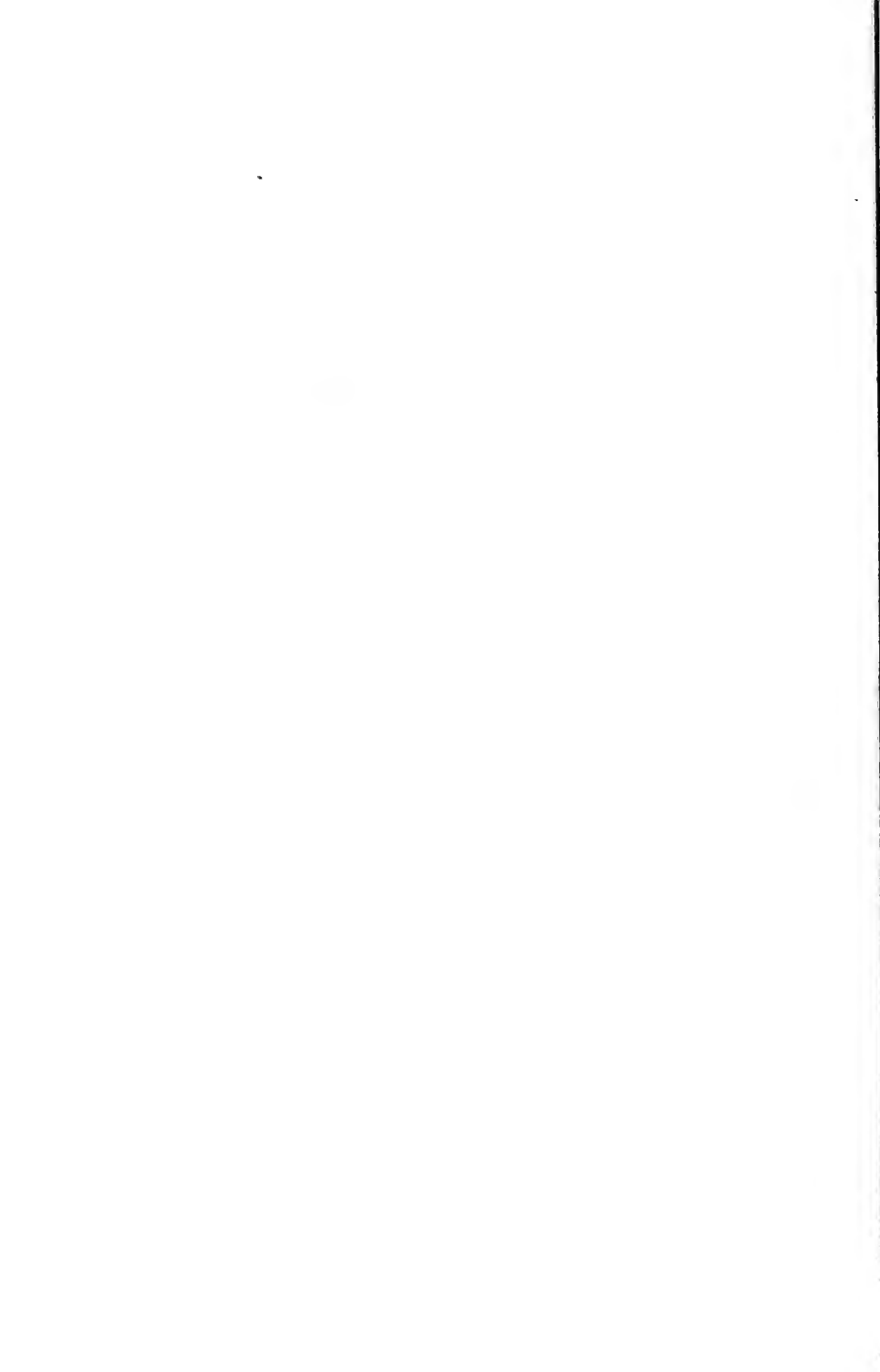
- Weygant, Charles H., Newburgh, N. Y. (50). Died 1909.
- Wheeler, Charles Fay, U. S. Department of Agriculture, Washington, D. C. (52). Died March 5, 1910.
- Whitfield, Richard Parr, American Museum of Natural History, New York, N. Y. (18). Died April 6, 1910.
- Wilbur, M. T., 195 Broadway, New York, N. Y. (57). Died 1909.
- Wilcox, Franklin A., 1 Broadway, New York, N. Y. (57). Died August 23, 1908.
- Willcox, David, 20 Liberty St., New York, N. Y. (57). Died 1908.
- Willett, James R., 434 West Jackson Blvd., Chicago, Ill. (53). Died May 9, 1907.
- Wright, Carroll Davidson, Clark College, Worcester, Mass. (41). Died February 21, 1909.
- Yates, Lorenzo Gordin, Society of Natural History, Santa Barbara, Cal. (54). Died 1909.
- Young, J. L., Jenny-Lind, Ark. (60). Died 1909.
- Zabriskie, Rev. Jeremiah L., 28 Regent Place, Brooklyn, N. Y. (58). Died April 2, 1910.
- Zalinski, E. L., 201 East 16th St., New York, N. Y. (36). Died March 10, 1909.
- Zimmerman, Clarence Irving, 308 Johnson Court, Madison, Wis. (60). Died May 15, 1909.

THE FIFTY-NINTH MEETING

HANOVER, N. H.

JUNE 29 to JULY 3, 1908.

SPECIAL SUMMER MEETING



SECTION A.

Mathematics and Astronomy.

OFFICERS OF SECTION A.

Vice-President and Chairman of the Section.

CASSIUS J. KEYSER, New York, N. Y.

Secretary.

GEORGE A. MILLER, Urbana, Ill.

Member of Council.

GEORGE BRUCE HALSTED, Greeley, Colo.

Sectional Committee.

E. O. LOVETT, Vice-President, 1907; C. J. KEYSER, Vice-President, 1908;

GEORGE A. MILLER, Secretary, 1907-1912.

E. B. FROST, 1 year; E. O. LOVETT, 2 years; HARRIS HANCOCK, 3 years;

F. R. MOULTON, 4 years; E. W. BROWN, 5 years.

Member of General Committee.

FOREST R. MOULTON, Chicago, Ill.

[No meeting of Section A was held and no papers presented before this section at the Hanover meeting.]

SECTION B.

PHYSICS.

OFFICERS OF SECTION B.

Vice-President and Chairman of the Section.

KARL E. GUTHE, Ann Arbor, Mich.

Secretary.

ALFRED D. COLE, Ohio State University, Columbus, Ohio.

Member of Council.

HENRY CREW, Evanston, Ill.

Sectional Committee.

D. C. MILLER, Vice-President, 1907; K. E. GUTHE, Vice-President, 1908; A. D. COLE, Secretary, 1907-1911.
F. E. NIPHER, 1 year; E. L. NICHOLS, 2 years; A. TROWBRIDGE, 3 years;
E. B. ROSA, 4 years; A. P. CARMAN, 5 years.

Member of General Committee.

H. S. CARHART, Ann Arbor, Mich.

REPORT OF THE SECRETARY OF SECTION B.

The summer meeting of the American Association for the Advancement of Science, Section B, was held in the Wilder Laboratory of Dartmouth College, Hanover, N. H., June 30, 1908. This was a joint meeting with the American Physical Society. There were two sessions, one in the forenoon and one in the afternoon. The attendance at each was about seventy. Professor Edward L. Nichols, president of the American Physical Society and president last year of the American Association for the Advancement of Science, was the presiding officer.

The titles of the sixteen papers presented are given below:

Light Pressure on Black Surfaces and on Thin Plates of Glass (with experimental demonstration).

G. F. HULL, Dartmouth College.

Changes in Density of the Ether, and Some Optical Effects Produced by it.

CHARLES F. BRUSH, Cleveland.

On Oscillations in the Metallic Arc.

W. G. CADY, Wesleyan University.

A Study of Overcast Skies.

EDWARD L. NICHOLS, Cornell University.

Demonstration of Wilson's Cloud Experiment, etc.

G. F. HULL, Dartmouth College.

The Influence of Temperature on the Fluorescence of Uranium Glass.

R. C. GIBBS, Cornell University.

Some Electrical Properties of Silicon.

FRANCES G. WICK, Cornell University.

A Study of Short-time Phosphorescence.

C. W. WAGGENER, Cornell University.

An Experimental Study of the Recovery of Selenium Cells.

L. S. McDOWELL, Cornell University. (Read by title.)

A Comparative Investigation of Dispersion and Electric Double Refraction in Liquids.

H. E. McCOMB, University of Nebraska. (Presented by C. A. Skinner.)

Electromagnetic Mass and Energy.

DANIEL F. COMSTOCK, Massachusetts Institute of Technology.
(Read by title.)

Effects of Absorbed Hydrogen and of Other Gases on the Photoelectric Activity of Metals.

V. L. CHRISLER, University of Nebraska. (Presented by C. A. Skinner.)

A New Method for Determining the Difference of Potential between a Metal and a Solution of One of its Solids.

A. W. EWELL, Worcester Polytechnic Institute.

The Isothermal Layer of the Atmosphere.

W. J. HUMPHREYS, Mt. Weather Meteorological Observatory.

Coefficients of Expansion at Low Temperatures.

H. G. DORSEY, Cornell University.

[Abstracts of all of above papers appear in *Science*, N. S. Vol. XXVIII, No. 712, August 21, 1908.]

SECTION C.

CHEMISTRY.

OFFICERS OF SECTION C.

Vice-President and Chairman of the Section.

LOUIS KAHLBERG, Madison, Wis.

Secretary.

CHARLES H. HERTY, Chapel Hill, N. C.

Member of Council.

GEORGE B. FRANKFORTER, Minneapolis, Minn.

Sectional Committee.

H. P. TALBOT, Vice-President, 1907; L. KAHLBERG, Vice-President, 1908; C. H. HERTY, Secretary, 1908-1912.
G. B. FRANKFORTER, 1 year; WM. MCPHERSON, 2 years; W. J. GIES, 3 years; L. P. KINNICUTT, 4 years; FRANK K. CAMERON, 5 years.

Member of General Committee.

JOHN H. LONG, Chicago, Ill.

[No meeting of Section C was held and no papers presented before this section at the Hanover meeting.]

SECTION D.

Mechanical Science and Engineering.

OFFICERS OF SECTION D.

Vice-President and Chairman of the Section.

GEORGE F. SWAIN, Cambridge, Mass.

Secretary.

GEORGE W. BISSELL, East Lansing, Mich.

Member of Council.

GEORGE F. SWAIN, Cambridge, Mass.

Sectional Committee.

O. H. LANDRETH, Vice-President, 1907; G. F. SWAIN, Vice-President, 1908; G. W. BISSELL, Secretary, 1908-1912.

WM. KENT, 1 year; A. M. GREENE, JR., 2 years; J. B. WEBB, 3 years; J. E. BOYD, 4 years; A. H. BLANCHARD, 5 years.

Member of General Committee.

GEORGE W. BISSELL, East Lansing, Mich.

[No meeting of Section D was held and no papers presented before this section at the Hanover meeting.]

SECTION E.

Geology and Geography.

OFFICERS OF SECTION E.

Vice-President and Chairman of the Section.

BAILEY WILLIS, Washington, D. C.

Secretary.

F. P. GULLIVER, Norwich, Conn.

Member of Council.

WILLIAM H. HOBBS, Ann Arbor, Mich.

Sectional Committee.

J. P. IDDINGS, Vice-President, 1907; BAILEY WILLIS, Vice-President, 1908; F. P. GULLIVER, Secretary, 1907-1911.

I. C. WHITE, 1 year; H. L. FAIRCHILD, 2 years; E. H. BARBOUR, 3 years; J. B. WOODWORTH, 4 years; F. B. TAYLOR, 5 years.

Member of General Committee.

H. L. FAIRCHILD, Rochester, N. Y.

REPORT OF THE SECRETARY OF SECTION E.

At the Hanover meeting of the American Association for the Advancement of Science, Section E, Geology and Geography, held two sessions for the reading of papers and participated in the excursions to Mt. Ascutney and Corbin Park. Prior to the gathering at Hanover, a party of geologists, which varied in number from eight to ten, enjoyed a trip from Bellows Falls, Vt., to Rutland under the guidance of Professor J. E. Wolff; to the marble quarries at West Rutland with Mr. G. H. Perkins, State geologist, and from Rutland to Woodstock in company with Professor Wolff and Professor C. H. Hitchcock.

The scientific sessions began Tuesday, June 30, at ten o'clock and, with an intermission for dinner, continued till 4.30 P. M. Mr. Bailey Willis, vice-president, called the meeting to order. In the absence of the sectional secretary, Dr. F. P. Gulliver, who was unfortunately too ill to attend, Professor J. E. Wolff consented to serve as secretary. After the opening of the afternoon session, Professor C. H. Hitchcock took the chair at the request of Mr. Willis and presided to the close of the session. The following papers were presented and discussed:

Local Geology of Hanover, N. H.

C. H. HITCHCOCK.

Recent Explorations in Mammoth Cave, with a Revised Map of the Cave.

HORACE C. HOVEY.

The Warm Stratum existing at a Great Height in the Atmosphere.

A. LAWRENCE ROTCH.

High-level Terraces of New England.

J. W. SPENCER.

Note upon the Structure of the Pre-Cambrian Gneiss of the Santa Catalina Mountains, Arizona.

WM. P. BLAKE.

Studies of the Tracks of Climatichnites.

C. H. HITCHCOCK and W. PATTEN.

The Altitude of the Algonquin Beach; and its Significance.

J. W. GOLDTHWAITE. (Illustrated by lantern slides.)

Changes in the Recession of the Falls of Niagara.

J. W. SPENCER. (Illustrated by lantern slides.)

Pre-glacial Erie Outlet.

J. W. SPENCER. (Illustrated by lantern slides.)

The excursion to Mount Ascutney, Wednesday, July 1, was shared by twenty-two members. A number accompanied Dr. Daly in a drive about the base of the mountain and to Little Ascutney to examine the igneous rocks and contact phenomena. The others ascended the principal height. In the view from the summit the oldest recognizable peneplain of the region was studied and certain differences of opinion as to its character were developed. To some of those present, the reduction of the surface toward a general peneplain appeared less complete than had been expected, and the appearance of the topography suggested that of certain mid-Tertiary slopes and heights.

From the excursion to Mount Ascutney members of Section E returned to Hanover to take part in the general exercises, including the trip to the Corbin Game Park on Thursday, July 2.

On Friday and Saturday a number proceeded from Hanover to Littleton, N. H., under the guidance of Professor Hitchcock, and examined the stratigraphy of the Silurian rocks, from which trilobites and brachiopods were collected.

[Abstracts of all of above papers appear in *Science*, N. S. Vol. xxviii, No. 716, September 18, 1908.]

SECTION F.

ZOOLOGY.

OFFICERS OF SECTION F.

Vice-President and Chairman of the Section.

C. JUDSON HERRICK, Chicago, Ill.

Secretary.

MAURICE A. BIGELOW, New York, N. Y.

Member of Council.

CARL H. EIGENMANN, Bloomington, Ind.

Sectional Committee.

E. B. WILSON, Vice-President, 1907; C. J. HERRICK, Vice-President, 1908; M. A. BIGELOW, Secretary, 1908-1912.
FRANK SMITH, 1 year; W. E. RITTER, 2 years; A. W. BLEILE, 3 years;
A. L. TREADWELL, 4 years; C. C. NUTTING, 5 years.

Member of General Committee.

GEORGE E. COGHILL, Granville, Ohio.

[No meeting of Section F was held and no papers presented before this section at the Hanover meeting.]

SECTION G.

BOTANY.

OFFICERS OF SECTION G.

Vice-President and Chairman of the Section.

HERBERT M. RICHARDS, New York, N. Y.

Secretary.

HENRY C. COWLES, Chicago, Ill.

Member of Council.

FREDERIC E. CLEMENTS, Minneapolis, Minn.

Sectional Committee.

C. E. BESSEY, Vice-President, 1907; H. M. RICHARDS, Vice-President, 1908; H. C. COWLES, Secretary, 1908-1912.
W. J. BEAL, 1 year; C. R. BARNES, 2 years; WM. TRELEASE, 3 years;
R. A. HARPER, 4 years; —————, 5 years.

Member of General Committee.

MASON B. THOMAS, Crawfordsville, Ind.

[No meeting of Section G was held and no papers presented before this section at the Hanover meeting.]

SECTION H.

Anthropology and Psychology.

OFFICERS OF SECTION H.

Vice-President and Chairman of the Section.

FRANZ BOAS, New York, N. Y.

Secretary.

GEO. H. PEPPER, New York, N. Y.

Member of Council.

B. T. B. HYDE, New York, N. Y.

Sectional Committee.

R. S. WOODWORTH, Vice-President, 1907; FRANZ BOAS, Vice-President, 1908; GEORGE H. PEPPER, Secretary, 1903-1908.

GEORGE GRANT MACCURDY, 1 year; ALÈS HRDLICKA, 2 years; FRANZ BOAS, 3 years; W. H. HOLMES, 4 years; R. B. DIXON, 5 years.

Member of General Committee.

GEORGE GRANT MACCURDY, New Haven, Conn.

[No meeting of Section H was held and no papers presented before this section at the Hanover meeting.]

SECTION I.

Social and Economic Science

OFFICERS OF SECTION I.

Vice-President and Chairman of the Section.

WILLIAM GRAHAM SUMNER, New Haven, Conn.

Secretary.

J. PEASE NORTON, New Haven, Conn.

Member of Council.

IRVING FISHER, New Haven, Conn.

Sectional Committee.

JOHN FRANKLIN CROWELL, Vice-President, 1907; WILLIAM GRAHAM, SUMNER, Vice President, 1908; J. PEASE NORTON, Secretary.

1907-1908.

W. R. LAZENBY, 1 year; E. L. CORTHELL, 2 years; CARROLL D. WRIGHT, 3 years; CHAS. A. CONANT, 4 years; IRVING FISHER, 5 years.

Member of General Committee.

JOHN FRANKLIN CROWELL, New York, N. Y.

[No meeting of Section I was held and no papers presented before this section at the Hanover meeting.]

SECTION K.

Physiology and Experimental
Medicine.

OFFICERS OF SECTION K.

Vice-President and Chairman of the Section.

WILLIAM H. HOWELL, Baltimore, Md.

Secretary.

WM. J. GIES, Columbia University, New York, N. Y.

Member of Council.

EDWIN O. JORDAN, Chicago, Ill.

Sectional Committee.

LUDVIG HEKTOEN, Vice-President, 1907; WILLIAM H. HOWELL, Vice-President, 1908; WM. J. GIES, Secretary, 1904-1908. J. MCK. CATTELL, 1 year; FREDERICK G. NOVY, 2 years; GRAHAM LUSK, 3 years; JACQUES LOEB, 4 years; C. S. MINOT, 5 years.

Member of General Committee.

HOWARD T. RICKETTS, Chicago, Ill.

[No meeting of Section K was held and no papers presented before this section at the Hanover meeting.]

SECTION L.

EDUCATION.

OFFICERS OF SECTION L.

Vice-President and Chairman of the Section.

JOHN DEWEY, New York, N. Y.

Secretary.

CHARLES R. MANN, Chicago, Ill.

Member of Council.

CHAS. S. HOWE, Cleveland, Ohio.

Sectional Committee.

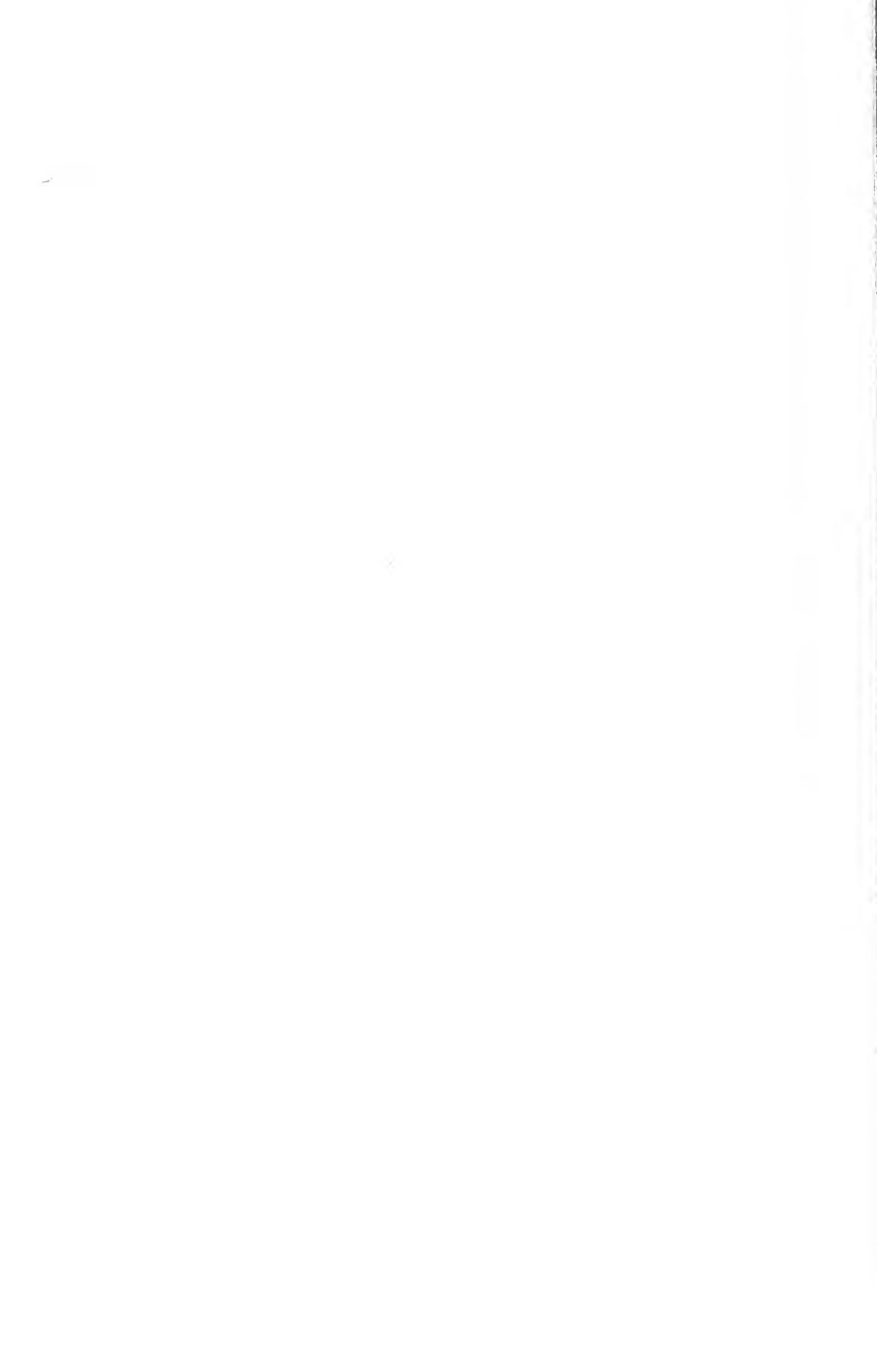
ELMER ELLSWORTH BROWN, Vice-President, 1907; JOHN DEWEY, Vice-President, 1908; CHAS. R. MANN, Secretary, 1908-1912. C. S. HOWE, 1 year; T. M. BALLEET, 2 years; E. L. THORNDIKE, 3 years; C. M. WOODWARD, 4 years; C. H. JUDD, 5 years.

Member of General Committee.

DANIEL P. MACMILLAN, Chicago, Ill.

[No meeting of Section L was held and no papers presented before this section at the Hanover meeting.]

EXECUTIVE PROCEEDINGS.



EXECUTIVE PROCEEDINGS.

REPORT OF THE GENERAL SECRETARY.

THE HANOVER MEETING OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

The special summer meeting of the American Association for the Advancement of Science held at Hanover, N. H., on the invitation of Dartmouth College, from June 29 to July 2, took place in accordance with the program as prepared. The local committee, with Dean Robert Fletcher as chairman and Professor H. H. Horne as secretary, had made admirable arrangements for the reception and entertainment of members, and the college campus and buildings and the beautiful surrounding country were of even greater interest than had been anticipated.

The meeting was called to order at 8 P. M. on June 29 in the auditorium of Dartmouth Hall, and an address of welcome was given by the acting president of the college, Dr. John King Lord, who drew attention to the large place science now has in the college curriculum as compared with the conditions when the college was founded some one hundred and forty years ago. The president of the Association, Dr. T. C. Chamberlin, of the University of Chicago, responded on behalf of the Association and the visiting members. He laid stress on the increasing use of the scientific method in all subjects included in the college course and the importance of this movement for the future of society.

On Tuesday and Wednesday, June 30 and July 1, Section B and Section E of the Association held sessions for the reading of scientific papers in conjunction with the American Physical Society and the Geological Society of America. On the evening of June 30, Professor J. W. Spencer gave a public lecture entitled "The Spoliation of Niagara," and, on July 1, Mr. T. S. Palmer lectured on "The American Bison." On the following day, there was a general excursion to the Blue Mountain Forest Park, established by the late Mr. Austin Corbin to preserve the buffalo, moose, elk and other large animals of the American wilderness now threatened with extinction. Before, during and after the meeting there were excursions of much interest, arranged by the section of geology and geography.

The committee on policy of the Association held a meeting with Messrs. Woodward, Chamberlin, Britton, Cattell, Nichols and Howard in attendance. In view of the facts that only two sections met at Hanover and that the attendance was small, it was decided that all business for the council should be postponed to the Baltimore meeting. It was announced, however, that Professor John Dewey, of Columbia University, had been elected chairman of the Section of Education; that the American Medical Association, the American Society of Mechanical Engineers and the American Institute of Electrical Engineers will hereafter be represented on the council of the Association; that the membership of the Association now exceeds 6,000, and that progress has been made in the arrangements for a meeting in Hawaii in the summer of 1910. The following letter was received from the Hawaiian Promotion Committee:

Hawaii Committee
1910 Convention
American Association
for the Advancement of Science.
GOVERNOR W. F. FREAR, *Chairman.*
A. F. GRIFFITHS, *Vice-Chairman.*
A. F. JUDD, *Secretary.*

HONOLULU, T. H., June 12, 1908.

DR. L. O. HOWARD, *Permanent Secretary,*
American Association for the Advancement of Science,
Hanover, N. H.

Dear Sir: At a meeting called by Acting Governor E. A. Mott-Smith at the Governor's office to consider your letter in reference to the invitation of the American Association for the Advancement of Science to hold its convention, summer meeting, in 1910 in Hawaii, the invitation was cordially endorsed. The expressions of opinion left no doubt that the Association would receive a hearty welcome in Hawaii.

The following resolutions were adopted:

Resolved, That it is the sense of this meeting that a reply to the letter of Dr. L. O. Howard, Permanent Secretary of the American Association for the Advancement of Science, dated May 12, 1908, stating that an invitation had been received for the Association to hold a meeting in Hawaii in the summer of 1910, which invitation had been tentatively accepted, "provided suitable arrangements can be made," and wherein he asks certain questions, be replied to, as follows:

First. That the invitation to the Association to come to Hawaii is one which the people of the Islands generally and heartily approve.

Second. That the Association will be more than welcome.

Third. That the committees on reception and entertainment can and will be formed, consisting of the leading people of the Territory; that it is our belief that special expressions to this effect will be formally adopted at an early date by all the leading scientific, educational, commercial, political and social organizations in Hawaii.

Fourth. That entertainment at Honolulu will be furnished free to a large proportion of the members of the Association, and at greatly reduced rates to the remainder of them.

Fifth. That the question of transportation offers the greatest problem in connection with the invitation. As to this point, it is the belief of this meeting that the problem can be solved satisfactorily.

An organization was at once effected which will do everything possible to bring the Association to Hawaii and to provide for the entertainment of members who come. The list of the members of this representative organization follows:

W. F. Frear, Governor of Hawaii, *Chairman.*

A. F. Griffiths, President of the Trustees of the Oahu College, *Vice-Chairman.*

A. F. Judd, lawyer, *Secretary.*

E. A. Mott-Smith, Secretary of Hawaii.

Jared G. Smith, Director Hawaii Experiment Station.

F. L. Waldron, commission merchant, Chairman Hawaii Promotion Committee.

C. S. Holloway, Engineer, President and Executive Officer, Board of Commissioners of Agriculture and Forestry.

P. L. Horne, President, Kamehameha Schools.

D. L. Van Dine, Entomologist, Hawaii Experiment Station.

C. F. Eckhart, Chemist, Hawaii Sugar Planters' Experiment Station.

S. B. Dole, U. S. District Judge, Ex-Governor, etc.

R. A. Duncan, Territorial Food Commissioner.

W. T. Brigham, Director Bernice P. Bishop Museum.

W. R. Brinckerhoff, U. S. Public Health and Marine Hospital Service.

H. R. Trent, President, Trent Trust Company.

L. A. Thurston, lawyer.

W. A. Bryan, President, Pacific Scientific Institution.

J. E. Higgins, Hawaii Experiment Station.

F. G. Krauss, Hawaii Experiment Station.

L. Lewton-Brain, Hawaii Sugar Planters' Experiment Station.

R. S. Hosmer, Territorial Forester.

A. Gartley, Manager, Hawaiian Electric Company, Regent College of Hawaii, etc.

This organization will include later many others who will join in the welcome and entertainment of the Association.

The officers are Governor Walter F. Frear, Chairman; A. F. Griffiths, Vice-Chairman; A. F. Judd, Secretary.

I send you herewith copies of resolutions and letters from practically all the scientific, educational, social and commercial organizations in the city whose assurances of good-will and support fairly voice the unanimous feelings of the community.

The generous offer of the Trustees of the Oahu College of the free use of the College Halls for the meetings of the Association and its sections assure the committee of satisfactory and adequate places in which to hold the meetings of the convention. The satisfactory entertainment of the members is certain. Many will receive invitations to be guests in private homes. Many may prefer to live in the college

dormitories. The hotel accommodations of the city in addition are admirable.

The question of cheap transportation has already been taken up by the committee. In this matter, we shall wish and shall need your co-operation as well as that of the other officers and members of the Association. The committee is sanguine that a fairly good rate can be secured.

We hope that the advantages as well as the pleasure of holding the convention in Hawaii will be brought out in both the Hanover and Baltimore meetings. We are now preparing a statement of the unusual opportunities for scientific study that Hawaii offers. We shall have this ready for your use at an early date.

Assuring you that Hawaii will royally welcome and entertain as many members as can come to the 1910 convention, we remain,

Very truly yours,

(Sgd.) A. F. JUDD,

Secretary.

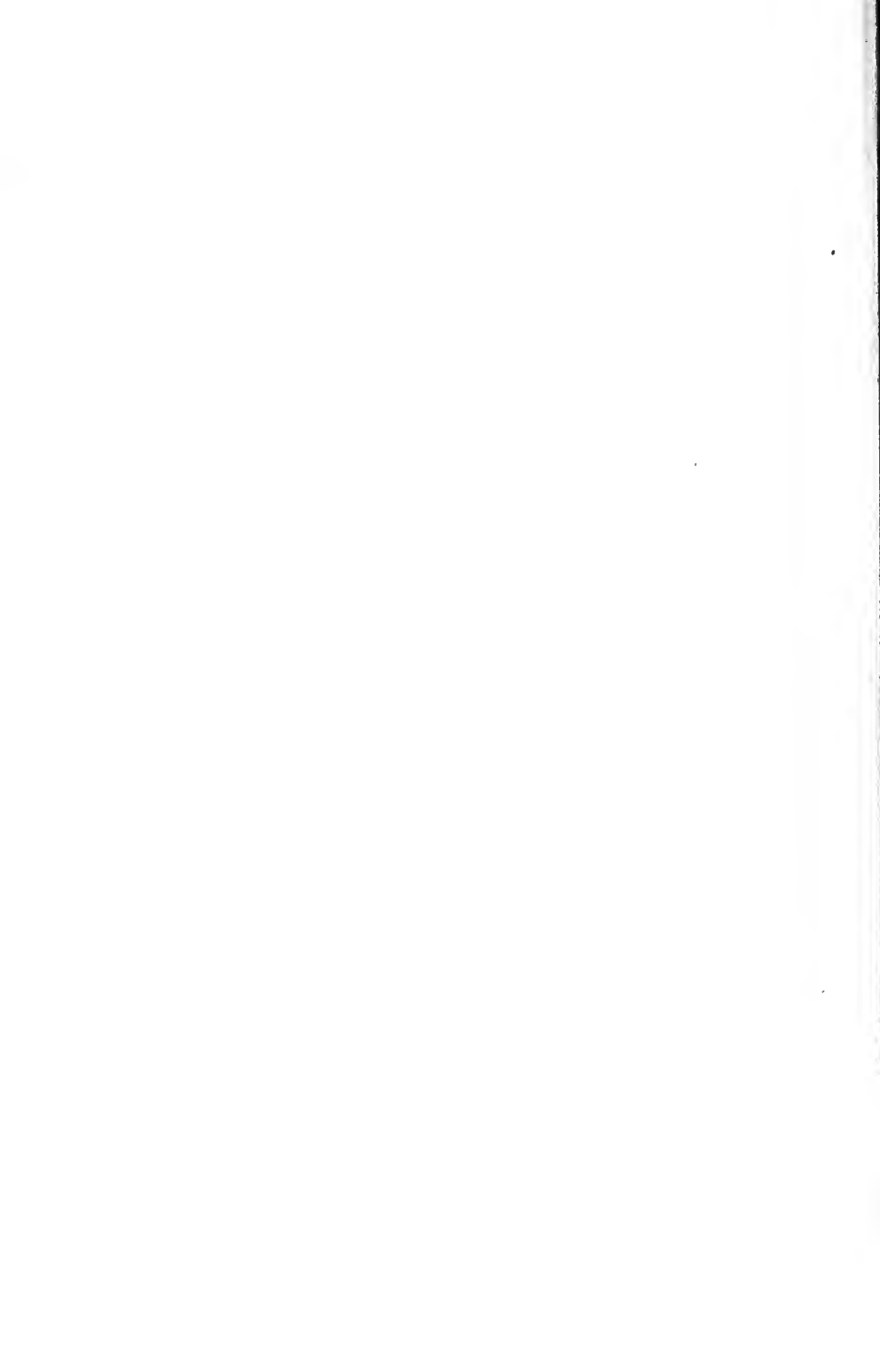
A. F. GRIFFITHS, *Vice-Chairman.*

(NOTE: *Owing to difficulties of transportation, the Council at the Boston meeting authorized the postponement of the Hawaiian trip until a later date.*—PERMANENT SECRETARY.)

Index for Hanover Meeting

(For Baltimore Index, see page 483.)

(For Boston Index, see page 651.)



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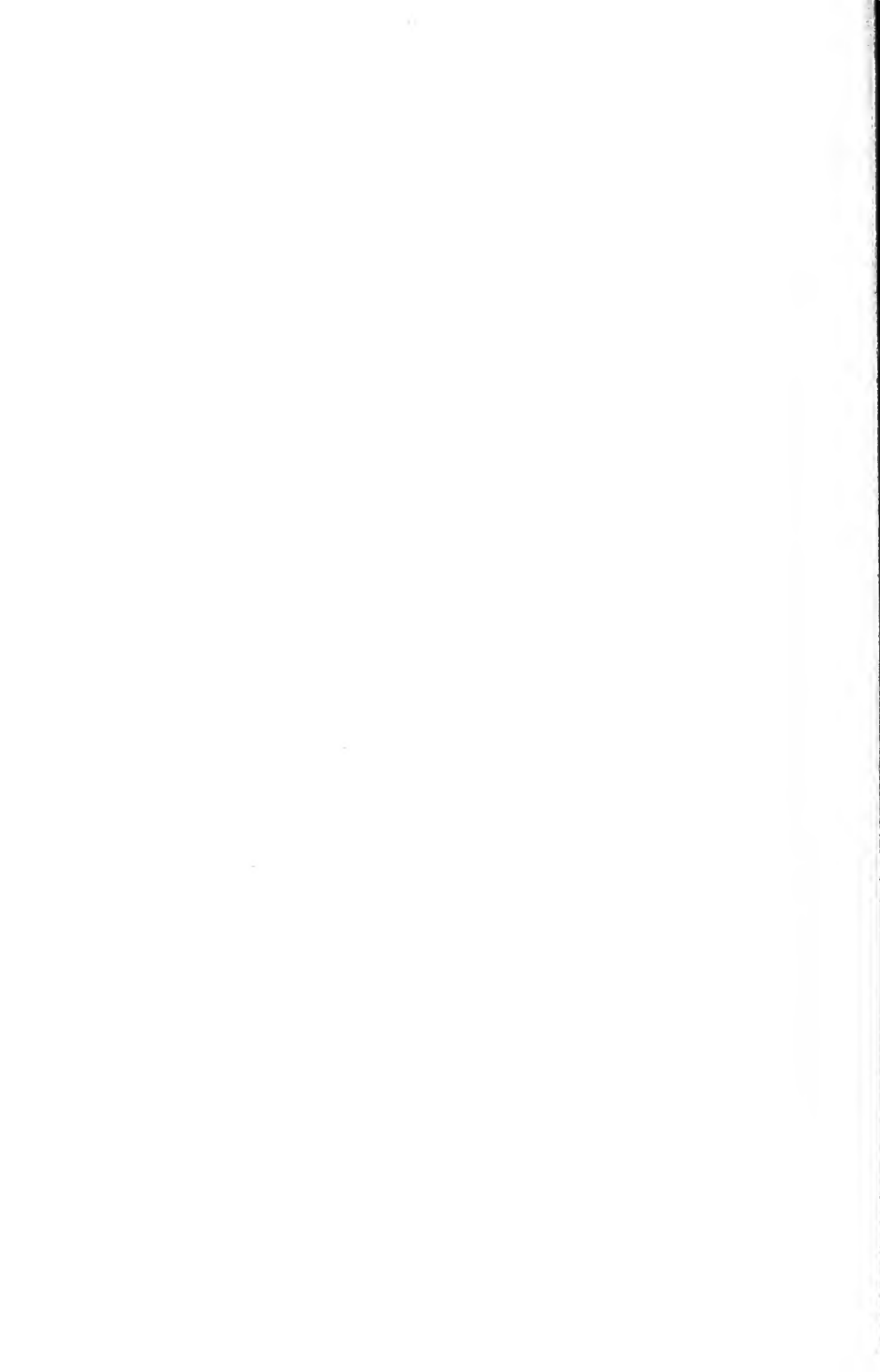


THE SIXTIETH MEETING

BALTIMORE, MD.

DECEMBER 28, 1908, to JANUARY 2, 1909.

WINTER MEETING



ADDRESS

BY

THE RETIRING PRESIDENT OF THE
ASSOCIATION.

SCIENCE AND THE PRACTICAL PROBLEMS OF THE
FUTURE.

EDWARD L. NICHOLS, PH. D.

Science, N. S., Vol. xxix, No. 731, January 1, 1909. pp. 1-10.

SECTION A.



Mathematics and Astronomy.

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Member of General Committee.

FOREST R. MOULTON, Chicago, Ill.

ADDRESSES AND PAPERS PRESENTED.

The Problem of Several Bodies: Recent Progress in its Solution.

Address by EDGAR ODELL LOVETT, Rice Institute, Vice-President
and Chairman of Section A for 1907.

Science, N. S. Vol. xxix, No. 733, January 15, 1909.
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The Spectrum of Mars. (Read by John A. Miller.)

V. M. SLIPHER, Lowell Observatory, Flagstaff, Ariz.

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EDWIN B. FROST and JOHN A. PARKHURST, Yerkes Observatory,
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FRANK SCHLESINGER, Allegheny Observatory, Allegheny, Pa.

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ROBERT H. BAKER, Allegheny Observatory, Allegheny, Pa.
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EDWIN B. FROST, Yerkes Observatory, Williams Bay, Wis.

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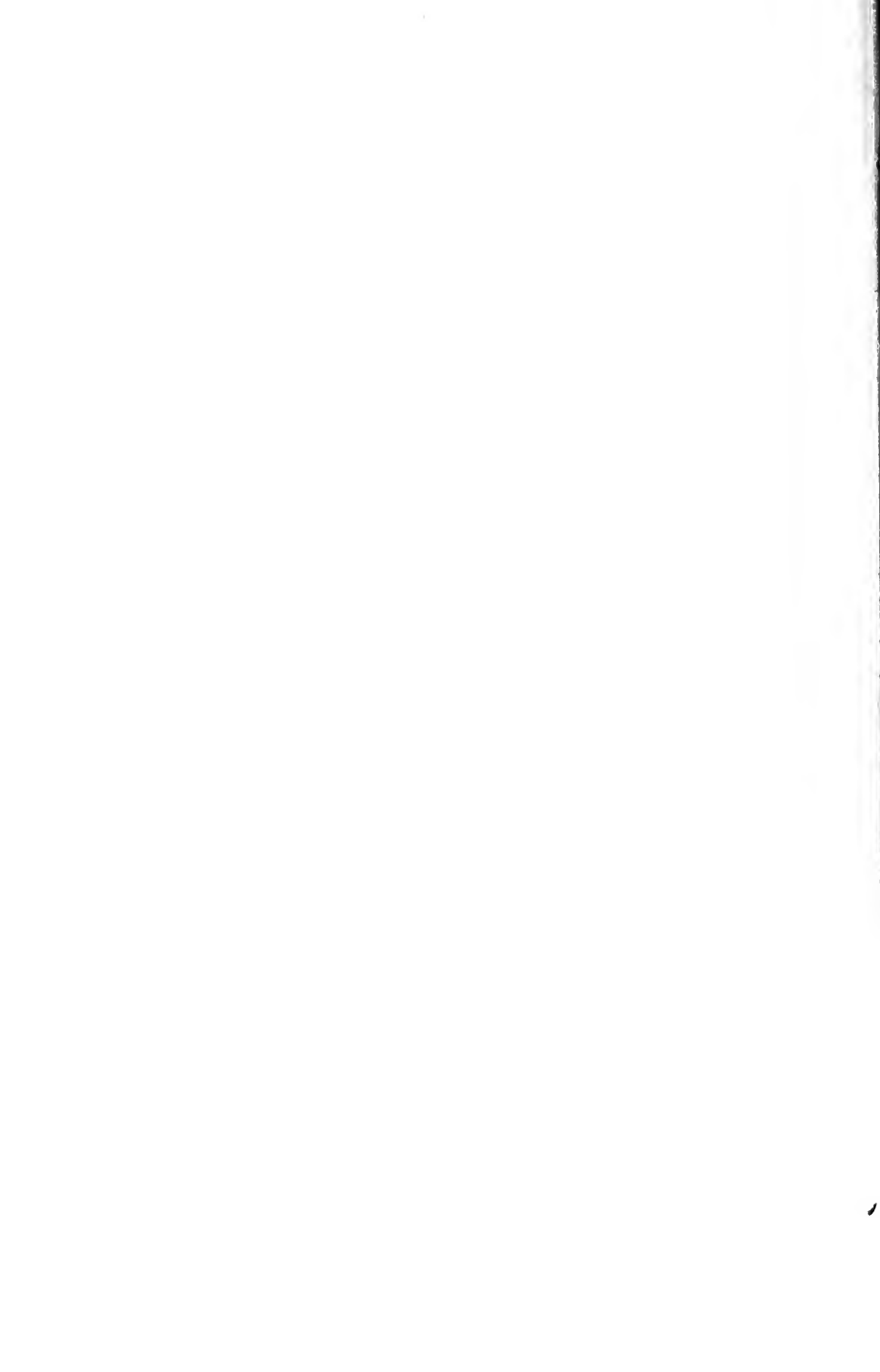
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SECTION B.



PHYSICS.

OFFICERS OF SECTION B.

Vice-President and Chairman of the Section.

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Member of General Committee.

H. S. CARHART, Ann Arbor, Mich.

ADDRESSES AND PAPERS PRESENTED.

The Influence of the Material of Wind Instruments on the Tone Quality.

Address by DAYTON C. MILLER, Case School of Applied Science, Vice-President and Chairman of Section B for 1907.

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PAUL H. DIKE, Department of Terrestrial Magnetism, Car-
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CHARLES F. BRUSH, Cleveland, O.
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J. C. McLENNAN, University of Toronto, Toronto, Canada.

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EDWIN S. JOHONNOTT, Rose Polytechnic Institute, Terre Haute,
Ind.

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WILLIAM J. HUMPHREYS, Mount Weather Observatory, Va.
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ELIZABETH R. LAIRD, Mount Holyoke College, South Hadley,
Mass.

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SECTION C.

CHEMISTRY.

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ADDRESSES AND PAPERS PRESENTED.

GENERAL SESSION.

Science Teaching as a Career.

Address by HENRY P. TALBOT, Massachusetts Institute of Technology, Vice-President and Chairman of Section C for 1907.

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JOINT MEETING WITH THE AMERICAN CHEMICAL
SOCIETY.

The Efficiency and Deficiencies of the College-trained Chemist when Tested in the Technical Field.

WILLIAM H. NICHOLS, New York, N. Y.

Science, N. S. Vol. xxix, No. 738, February 19, 1909,
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To what Extent should College Training confer Practical Efficiency along Technical Lines?

LOUIS M. DENNIS, Cornell University, Ithaca, N. Y.

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The Attitude of Technical Institutions to Post-graduate Study.

WILLIAM McMURTRIE, New York, N. Y.

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CHARLES H. HERTY, University of North Carolina, Chapel Hill, N. C.

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HOMER J. WHEELER, Rhode Island Agricultural Experiment Station, Kingston, R. I.
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SOLOMON F. ACREE, Johns Hopkins University, Baltimore, Md.
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EDWARD KREMERS, University of Wisconsin, Madison, Wis.
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SECTION.

HOMER J. WHEELER, *Chairman.*

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EDWARD GUEDEMAN, Chicago, Ill.

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W. A. SYME, Raleigh, N. C.

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SHERMAN LEAVITT and J. ARTHUR LECLERC, U. S. Department
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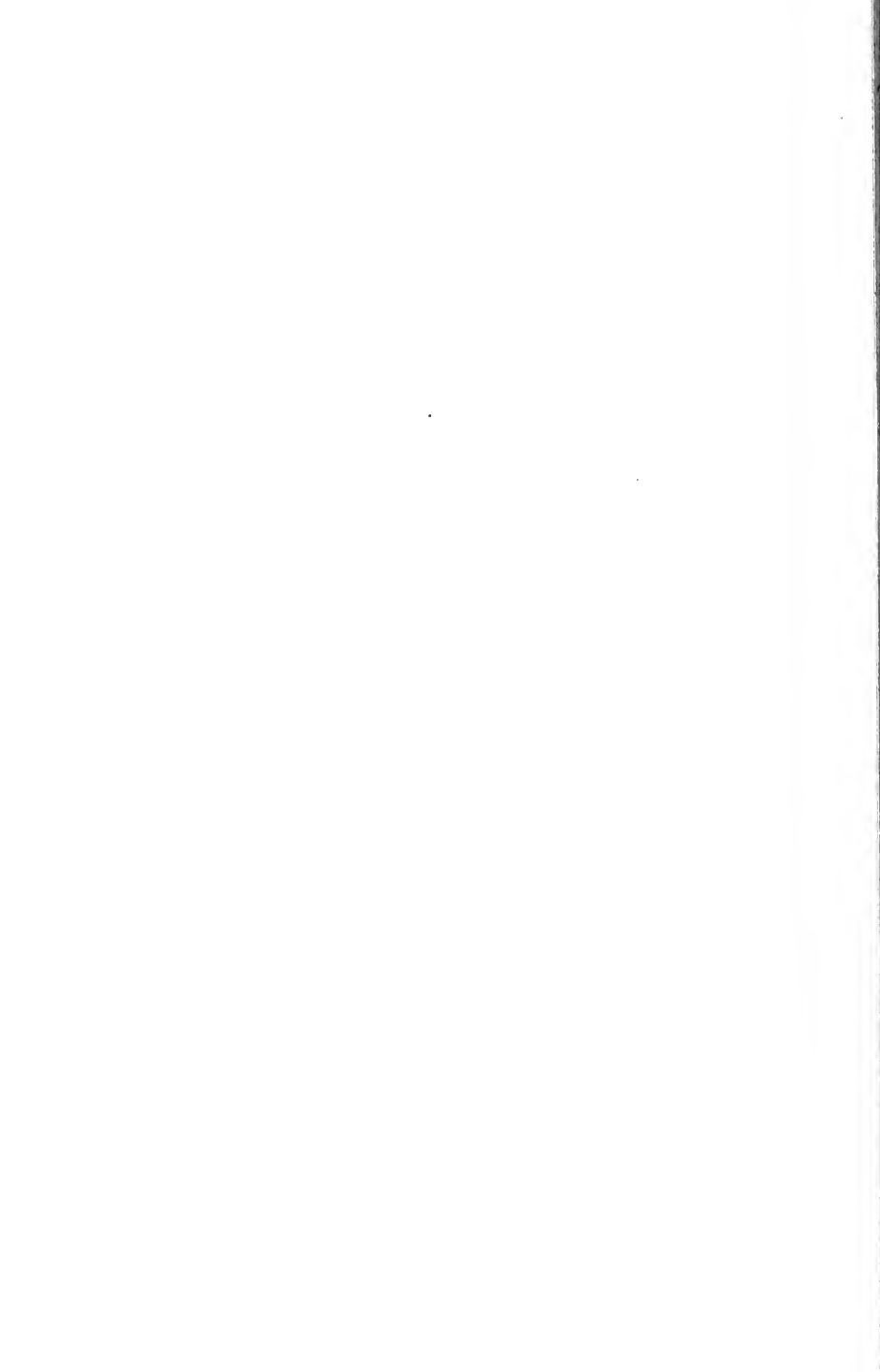
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SECTION D.

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OFFICERS OF SECTION D.

Vice-President and Chairman of the Section.

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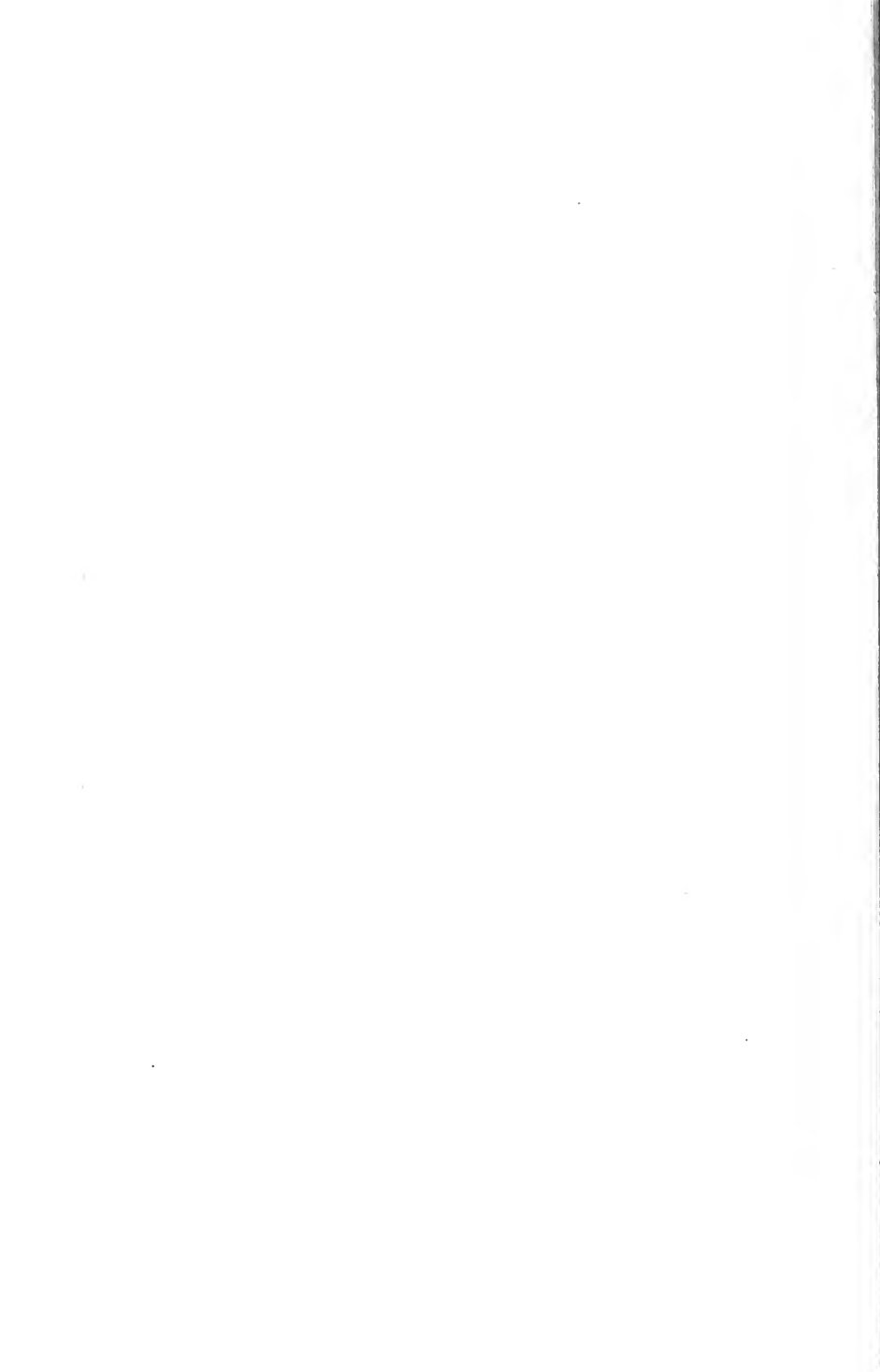
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SECTION E.

Geology and Geography.

OFFICERS OF SECTION E.

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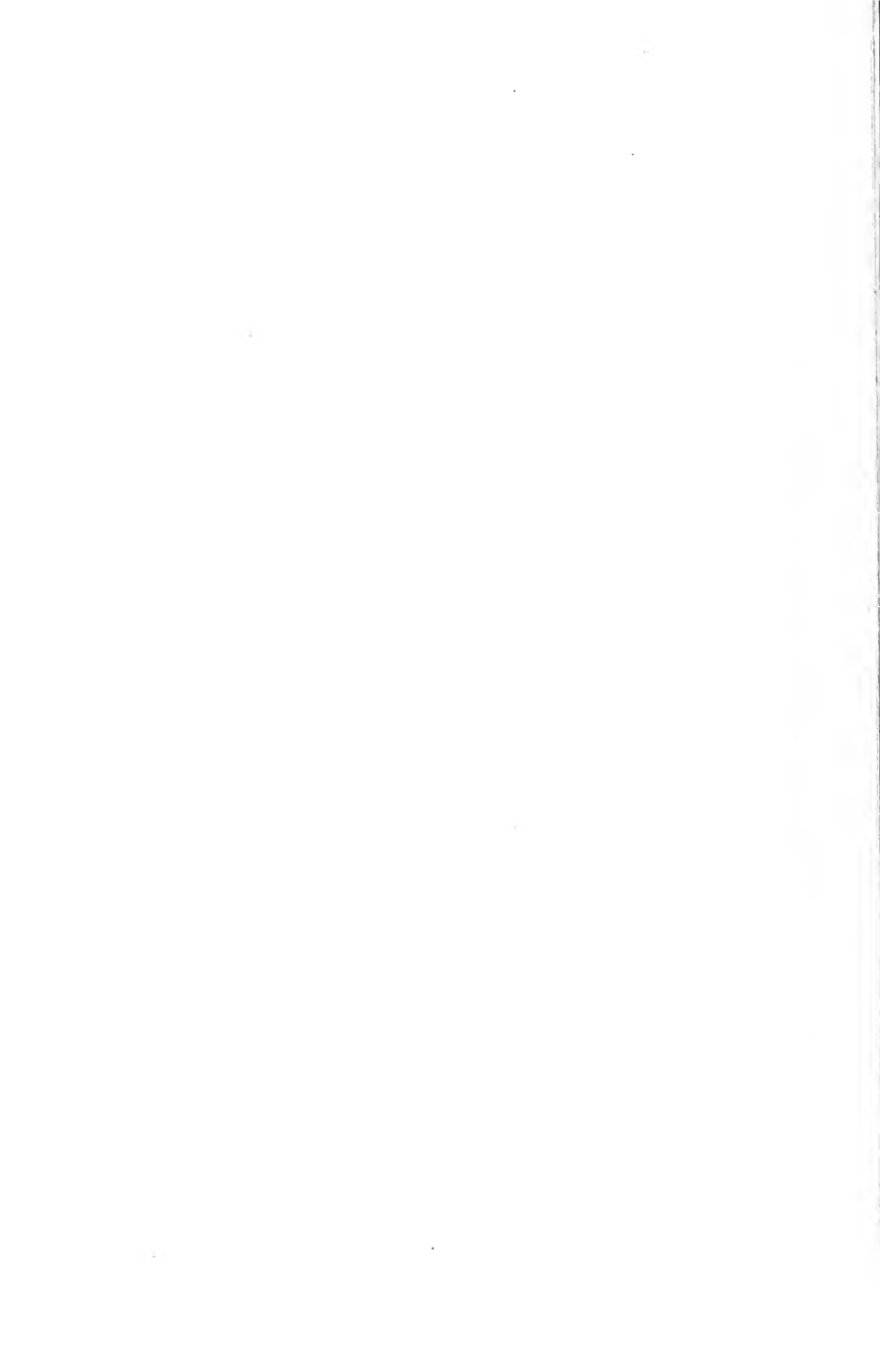
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SECTION F.



ZOOLOGY.

OFFICERS OF SECTION F.

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GEORGE E. COGHILL, Granville, Ohio.

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C. HART MERRIAM, U. S. Department of Agriculture, Washington, D. C.

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FRANCIS M. WEBSTER, U. S. Department of Agriculture, Wash-
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ETHAN A. ANDREWS, Johns Hopkins University, Baltimore, Md.

Science, N. S. Vol. xxix, No. 752, May 28, 1909, p. 875.

Evolution and Adaptation in the Palpi of Male Spiders.

JAMES A. NELSON, U. S. Department of Agriculture, Washington, D. C.

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JOINT MEETING WITH AMERICAN SOCIETY OF
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MAX MORSE, College of the City of New York, New York,
N. Y.

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CHARLES S. MEAD, New York, N. Y.

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HENRY H. LANE, University of Oklahoma, Norman, Okla.

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J. F. McCLENDON, University of Missouri, Columbia, Mo.

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SECTION G.

BOTANY.

OFFICERS OF SECTION G.

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ADDRESSES AND PAPERS PRESENTED.

For full report of secretary of Section G, see *Science*, N. S. Vol. xxix, No. 753, June 4, 1909, pp. 903-916.

The Phyletic Idea in Taxonomy.

Address by CHARLES EDWIN BESSEY, University of Nebraska,
Vice-President and Chairman of Section G for 1907.

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SUB-SECTION A.

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ALFRED DACHNOWSKI, Ohio State University, Columbus, O.
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BRUCE FINK, Miami University, Oxford, O.
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FORREST SHREVE, Carnegie Desert Laboratory, Tucson, Ariz.
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The Life History of *Griffithsia Bornetiana*.

I. F. LEWIS, Randolph-Macon College, Ashland, Va.
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The Morphology of the Peridial Cells in the *Roestelia*.

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HOWARD SPRAGUE REED, Virginia Polytechnic Institute, Blacksburg, Va.

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The Peg of the Cucurbits.

WILLIAM CROCKER, University of Chicago, Chicago, Ill., and

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 H. L. SHANTZ, U. S. Department of Agriculture, Washing-
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AMON B. PLOWMAN, Beaver, Pa.

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CHARLES H. SHAW, Ambler, Pa.

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SUB-SECTION B.

Two North Carolina Plant Diseases: Hypochno-se of Apple and Col-
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F. L. STEVENS and J. G. HALL, North Carolina College of
Agriculture and Mechanic Arts, West Raleigh, N. C.

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A Bacterial Rot of the Muskmelon.

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PERLEY SPAULDING, U. S. Department of Agriculture, Washington, D. C.

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HAVEN METCALF, U. S. Department of Agriculture, Washington, D. C.

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DONALD REDDICK, New York State College of Agriculture, Cornell University, Ithaca, N. Y.

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On a Method of Developing *Claviceps purpurea* Tul., with Notes on *Claviceps rubra* n sp.

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C. L. SHEAR, U. S. Department of Agriculture, Washington, D. C.

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JAMES BIRCH RORER, U. S. Department of Agriculture, Washington, D. C.

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E. L. MOSELEY, Sandusky High School, Sandusky, O.

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J. L. PHILLIPS, Blacksburg, Va.

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A New Anthracnose Attacking Certain Cereals and Grasses.

THOMAS F. MANNS, Ohio Agricultural Experiment Station, Wooster, O. (Read by A. D. Selby.)

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CLARA O. JAMIESON, U. S. Department of Agriculture, Washington, D. C.

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W. A. ORTON, U. S. Department of Agriculture, Washington, D. C.

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E. MEAD WILCOX, University of Nebraska, Lincoln, Neb.

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The Spraying of Cedars for "Cedar Apples."

F. D. HEALD, University of Texas, Austin, Tex.

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A Fusarium Disease of the Pansy.

FREDERICK A. WOLF, University of Texas, Austin, Tex.

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SAMUEL M. BAIN and SAMUEL H. ESSARY, University of Tennessee, Knoxville, Tenn.

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Two Interesting Smuts.

L. H. PAMMEL, Iowa State College, Ames, Ia.

Science, N. S. Vol. xxix, No. 753, June 4, 1909, p. 916.

SECTION H.

Anthropology and Psychology.

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ADDRESSES AND PAPERS PRESENTED.

For full report of secretary of Section H, see *Science*, N. S. Vol. xxix, No. 743, March 16, 1909, pp. 508-514.

Race Problems in America.

Address by FRANZ BOAS, Columbia University, Vice-President, and Chairman of Section H for 1907.

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Geological Facts Bearing on the Place of the Origin of the Human Race.

GEORGE FREDERICK WRIGHT, Oberlin, O.

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Measurements of Mixed and Full-blood Dakota Children. (Read by title.)

CLARK WISSLER, American Museum of Natural History, New York, N. Y.

Science, N. S. Vol. xxix, No. 743, March 26, 1909, p. 514.

Height in the Southwestern and North Mexican Indians. (Read by title.)

ALĚS HRDLICKA, U. S. National Museum, Washington, D. C.

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A Curious Survival in Mexico of the Use of *Murex purpura* for Dyeing Purposes.

MRS. ZELIA NUTTALL, Casa Alvarado, Coyoacan, D. F., Mexico.

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WALTER HOUGH, U. S. National Museum, Washington, D. C.
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Presentation of Eoliths from Boncelles.

CHARLES PEABODY, Cambridge, Mass., and GEORGE GRANT
 MACCURDY, New Haven, Conn.

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GEORGE GRANT MACCURDY, Yale University, New Haven, Conn.

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ROLAND B. DIXON, Peabody Museum, Cambridge, Mass.

(President, American Folk-Lore Society.)

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a. Transmigration in California.

b. Battle of the First People with Dakko, the Sun God—a Hanifo
 Myth.

c. Mythology of the Mewan Tribes.

d. Additional Notes on the Yummé or Mourning Ceremony.

e. The Creation Myth of the Pá-we-nan.

C. HART MERRIAM, U. S. Department of Agriculture, Wash-
 ington, D. C.

Journal of American Folk-Lore, 1909.

Izamal and Its Celestial Plan.

STANSBURY HAGAR, New York, N. Y.

Science, N. S. Vol. xxix, No. 743, March 26, 1909,
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Social Institutions of the Tinglayan Igorrotes.

DANIEL FOLKMAR, Washington, D. C.

Philippine Journal of Science, 1909.

Observations on Esoteric Narratives on the Source of Myths. (Read by title.)

CLARK WISSLER, American Museum of Natural History, New York, N. Y.

Science, N. S. Vol. xxix, No. 743, March 26, 1909,
p. 514.

On the Concordance of American Mythologies.

FRANZ BOAS, New York, N. Y.

Journal of American Folk-Lore, 1909.

On American Archæological Nomenclature.

CHARLES PEABODY, Cambridge, Mass.

Science, N. S. Vol. xxix, No. 743, March 26, 1909,
pp. 509-511.

On Book Reviews.

FREDERICK WEBB HODGE, Bureau of American Ethnology,
Washington, D. C.

Science, N. S. Vol. xxix, No. 743, March 26, 1909,
p. 511.

On Nomenclature of Indian Linguistic Families North of Mexico.

FREDERICK WEBB HODGE, Bureau of American Ethnology,
Washington, D. C.

Science, N. S. Vol. xxix, No. 743, March 26, 1909,
p. 511.

On the Preservation of American Antiquities. (Read by title.)

EDGAR L. HEWETT, Bureau of American Ethnology, Wash-
ington, D. C.

Science, N. S. Vol. xxix, No. 743, March 26, 1909,
p. 514.

Presentation of Two Paleolithic Implements Recently found in Undisturbed Glacial Deposits; one in Missouri, the other in Ohio.

GEORGE FREDERICK WRIGHT, Oberlin, O.

Science, N. S. Vol. xxix, No. 743, March 26, 1909,
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Archeological Explorations in Manitoba. (Read by title.)

HENRY MONTGOMERY, University of Toronto, Ontario, Canada.

Science, N. S. Vol. xxix, No. 743, March 26, 1909,
p. 514.

University of Toronto Studies, 1909.

Some Inventions of the Ancient Hawaiians. (Read by title.)

WILLIAM ALANSON BRYAN, Pacific Scientific Institution,
Honolulu, Hawaii.

Science, N. S. Vol. xxix, No. 743, March 26, 1909,
p. 514.

Ballads and Songs of Western North Carolina. (Read by title.)

MISS LOUISE RAND BASCOM.

Science, N. S. Vol. xxix, No. 743, March 26, 1909,
p. 514.

Folk-Lore from the Southern States. (Read by title.)

JOHN P. CROSS.

Science, N. S. Vol. xxix, No. 743, March 26, 1909,
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Folk-Music in America. (Read by title.)

PHILLIPS BARRY.

Science, N. S. Vol. xxix, No. 743, March 26, 1909,
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Notes on Northern Wintum Indians. (Read by title.)

F. B. WASHINGTON.

Science, N. S. Vol. xxix, No. 743, March 26, 1909,
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Traditions of the Coos Indians of Oregon. (Read by title.)

LEO FORCHBENBERG.

Science, N. S. Vol. xxix, No. 743, March 26, 1909,
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Sketch of the Yuchi Language. (Read by title.)

FRANK G. SPECK, Philadelphia, Pa.

Science, N. S. Vol. xxix, No. 743, March 26, 1909,
p. 514.

Songs of the Western Cowboys. (Read by title.)

GEORGE WILL.

Science, N. S. Vol. xxix, No. 743, March 26, 1909,
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The Importance of Recording Negro-Lore, Dialects and Melodies.
(Read by title.)

MISS MARY W. F. SPEERS.

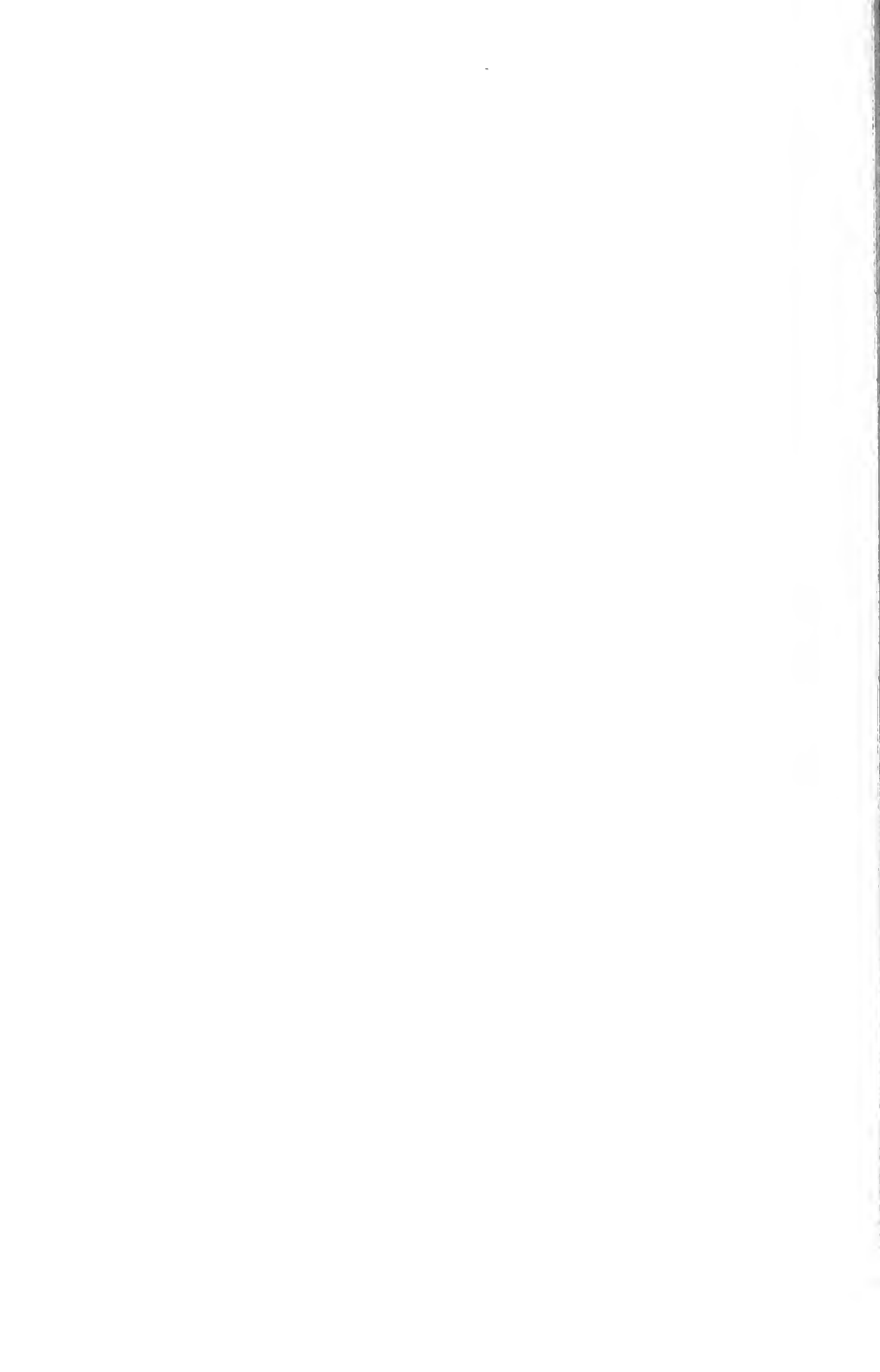
Science, N. S. Vol. xxix, No. 743, March 26, 1909,
p. 514.

A Trip Through New Guinea.

GEORGE A. DORSEY.

Characteristic Traits of the Yana Language of California.

E. SAPIR.



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Social and Economic Science.

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ADDRESSES AND PAPERS PRESENTED.

The Influence of Science Upon the Progress of Investment.

Address by JOHN FRANKLIN CROWELL, New York, Vice-President and Chairman of Section I for 1907.

Science, N. S. Vol. xxix, No. 745, April 9, 1909,
pp. 561-566.

Address of Welcome.

HON. J. BARRY MAHOOL, Mayor of Baltimore.

The Oriental Currency Problem.

CHARLES A. CONANT, New York, N. Y.

The Currency Question in China.

CHINTAO CHEN, Senior Secretary of the Board of Finance of the Chinese Empire and Vice-President of the Imperial Bank of Peking.

SYMPOSIUM ON TARIFF REVISION.

JOINT SESSION WITH TARIFF REFORM COMMITTEE OF
THE REFORM CLUB OF NEW YORK CITY.

Tariff Revision from the Manufacturers' Standpoint.

A. B. FARQUHAR, York, Pa., and H. E. MILES, Racine, Wis.

Tariff Revision from the Importers' Standpoint.

FRANCIS E. HAMILTON, New York, N. Y.

Tariff Revision from the Consumers' Standpoint.

JESSE J. ORTON, Secretary of the Tariff Reform Committee of the Reform Club, New York, N. Y.

The Steel Tariff.

BYRON W. HOLT, Chairman of the Tariff Reform Committee
of the Reform Club, New York, N. Y.

JOHN FRANKLIN CROWELL and SEYMOUR C. LOOMIS.

SYMPOSIUM ON STOCK EXCHANGE REGULATION.

Speculation and Investment.

HENRY CLEWS, New York, N. Y.

The Stock Exchange and the Panic of 1907.

EUGENE MEYER, member of the New York Stock Exchange.

SYMPOSIUM ON PUBLIC HEALTH.

JOINT SESSION WITH THE COMMITTEE OF ONE HUN-
DRED, THE AMERICAN HEALTH LEAGUE AND THE
NATIONAL LEGISLATIVE CONFERENCE OF THE
AMERICAN MEDICAL ASSOCIATION.

Introductory Address.

WILLIAM H. WELCH, Johns Hopkins University.

The Nation's Pure Food Problem.

HARVEY W. WILEY, Bureau of Chemistry, Washington, D. C.

Economic Loss to the People of the United States Through Insects
that Carry Diseases.

L. O. HOWARD, Permanent Secretary, A. A. A. S.

The National Geographic Magazine, Vol. xx, No. 8.
August, 1909, pp. 735-749.

Bulletin No. 78, Bureau of Entomology, U. S. Depart-
ment of Agriculture.

Vital Economics.

HORACE FLETCHER, New York, N. Y.

Progress of the Movement for Health Reform.IRVING FISHER, Yale University, President of the Committee
of One Hundred on National Health.

Public Health Administration.

WALTER WYMAN, Washington, D. C.



SECTION K.

Physiology and Experimental
Medicine.

OFFICERS OF SECTION K.

Vice-President and Chairman of the Section.

WILLIAM H. HOWELL, Baltimore, Md.

Secretary.

WM. J. GIES, Columbia University, New York, N. Y.

Member of Council.

EDWIN O. JORDAN, Chicago, Ill.

Sectional Committee.

LUDVIG HEKTOEN, Vice-President, 1907; WILLIAM H. HOWELL, Vice-President, 1908; WM. J. GIES, Secretary, 1904-1908.
J. McK. CATTELL, 1 year; FREDERICK G. NOVY, 2 years; GRAHAM LUSK, 3 years; JACQUES LOEB, 4 years; C. S. MINOT, 5 years.

Member of General Committee.

HOWARD T. RICKETTS, Chicago, Ill.

ADDRESSES AND PAPERS PRESENTED.

For full report of secretary of Section K, see *Science*, N. S. Vol. xxix, No. 743, March 26, 1909, pp. 514-516.

Opsonins and Other Antibodies.

Address by LUDVIG HEKTOEN, University of Chicago, Vice-President and Chairman of Section K for 1907.

Science, N. S. Vol. xxix, No. 737, February 12, 1909, pp. 241-248.

First Session.

SYMPOSIUM.

THE REGULATION OF PHYSICAL INSTRUCTION IN
SCHOOLS AND COLLEGES FROM THE STAND-
POINT OF HYGIENE.

Introductory Remarks by the Chairman.

WILLIAM H. HOWELL, Johns Hopkins Medical School, Baltimore, Md.

The Regulation of Physical Instruction in Schools and Colleges from the Standpoint of Hygiene.

ROBERT TAIT MCKENZIE, University of Pennsylvania, Philadelphia, Pa.

Science, N. S. Vol. xxix, No. 743, March 26, 1909, pp. 481-484.

On the Physiological Effects of Moderate Muscular Activity and of Strain.

THEODORE HOUGH, University of Virginia, Charlottesville, Va.
Science, N. S. Vol. xxix, No. 743, March 26, 1909, pp. 484-490.

Physical Exercise from the Standpoint of Physiology.

FREDERIC S. LEE, Columbia University, New York, N. Y.

Science, N. S. Vol. xxix, No. 744, April 2, 1909,
pp. 521-527.

Departmental Organization for the Regulation of Physical Instruction
in Schools and Colleges from the Standpoint of Hygiene.

THOMAS A. STOREY, College of the City of New York, New
York, N. Y.

Science, N. S. Vol. xxix, No. 744, April 2, 1909,
pp. 527-532.

Second Session.

JOINT MEETING WITH THE AMERICAN PHYSIOLOGICAL
SOCIETY, THE SOCIETY OF AMERICAN BACTERI-
OLOGISTS AND THE AMERICAN SOCIETY
OF BIOLOGICAL CHEMISTS.

Anaphylaxis.

MILTON J. ROSENAU and JOHN F. ANDERSON, U. S. Public
Health and Marine Hospital Service, Washington, D. C.
Archives of Internal Medicine, June, 1909.

The Physiological Significance of Creatin and Creatinin.

LAFAYETTE B. MENDEL, Yale University, New Haven, Conn.

Science, N. S. Vol. xxix, No. 745, April 9, 1909,
pp. 584-591.

The Cause and Diagnostic Value of the Venous Pulse.

ALBION W. HEWLETT, University of Michigan, Ann Arbor,
Mich.

Science, N. S. Vol. xxix, No. 743, March 26, 1909,
pp. 515-516.

SECTION L.



EDUCATION.

OFFICERS OF SECTION L.

Vice-President and Chairman of the Section.

JOHN DEWEY, New York, N. Y.

Secretary.

CHARLES R. MANN, Chicago, Ill.

Member of Council.

CHAS. S. HOWE, Cleveland, O.

Sectional Committee.

ELMER ELLSWORTH BROWN, Vice-President, 1907; JOHN DEWEY, Vice-President, 1908; CHAS. R. MANN, Secretary, 1908-1912.
C. S. HOWE, 1 year; T. M. BALLIET, 2 years; E. L. THORNDIKE, 3 years;
C. M. WOODWARD, 4 years; C. H. JUDD, 5 years.

Member of General Committee.

DANIEL P. MACMILLAN, Chicago, Ill.

ADDRESSES AND PAPERS PRESENTED.

For full report of secretary of Section L, see *Science*, N. S. Vol. xxix, No. 752, May 28, 1909, pp. 872-873.

American Standards in Education and the World-Standard.

Address by ELMER ELLSWORTH BROWN, National Bureau of Education, Vice-President and Chairman of Section L, for 1907.

Science, N. S. Vol. xxx, No. 770, October 1, 1909, pp. 417-427.

First Session.

The Work of the National Bureau of Education.

Discussed by: WILLIAM D. JOHNSON, National Bureau of Education, Washington, D. C. EDWARD C. ELLIOTT, University of Wisconsin, Madison, Wis. E. C. MOORE, Los Angeles, Cal.

Science, N. S. Vol. xxix, No. 752, May 28, 1909, pp. 872-873.

Second Session.

American College Education and Life.

Discussed by: JOSIAH ROYCE, Harvard University, Cambridge, Mass. WILLIAM NORTH RICE, Wesleyan University, Middletown, Conn. JAMES H. TUFTS, University of Chicago, Chicago, Ill. ABRAHAM FLEXNER, Carnegie Foundation for the Advancement of Teaching.

Science, N. S. Vol. xxix, No. 740, March 5, 1909, pp. 361-376.

Science, N. S. Vol. xxix, No. 741, March 12, 1909, pp. 401-414.

JOINT SESSION WITH AMERICAN PSYCHOLOGICAL
ASSOCIATION.

Psychological Investigations that will Help the Educator.

EDWIN A. KIRKPATRICK, State Normal School, Fitchburg, Mass.
Science, N. S. Vol. xxix, No. 752, May 28, 1909, p. 873.

Studies in Number Consciousness.

CHARLES H. JUDD, Yale University, New Haven Conn.
Report, American Psychological Association.
Science, N. S. Vol. xxix, No. 752, May 28, 1909, p. 873.

The Factors of General Ability.

EDWARD L. THORNDIKE, Columbia University, New York, N. Y.
Science, N. S. Vol. xxix, No. 752, May 28, 1909, p. 873.

Homogeneous Content in the Measurement of the Memory.

CARL E. SEASHORE, State University of Iowa, Iowa City, Ia.
The Psychological Bulletin, Vol. vi, No. 7.

The General Effects of Special Practise in Memory.

WALTER F. DEARBORN, Madison, Wis.
Science, N. S. Vol. xxix, No. 752, May 28, 1909, p. 873.

The Study and Treatment of Retardation.

LIGHTNER WITMER, University of Pennsylvania, Philadelphia,
Pa.

The Psychological Bulletin, April 15, 1909.

JOINT SESSION WITH AMERICAN FEDERATION OF
TEACHERS OF THE MATHEMATICAL AND
THE NATURAL SCIENCES.

SYMPOSIUM.

The Problems of Science Teaching.

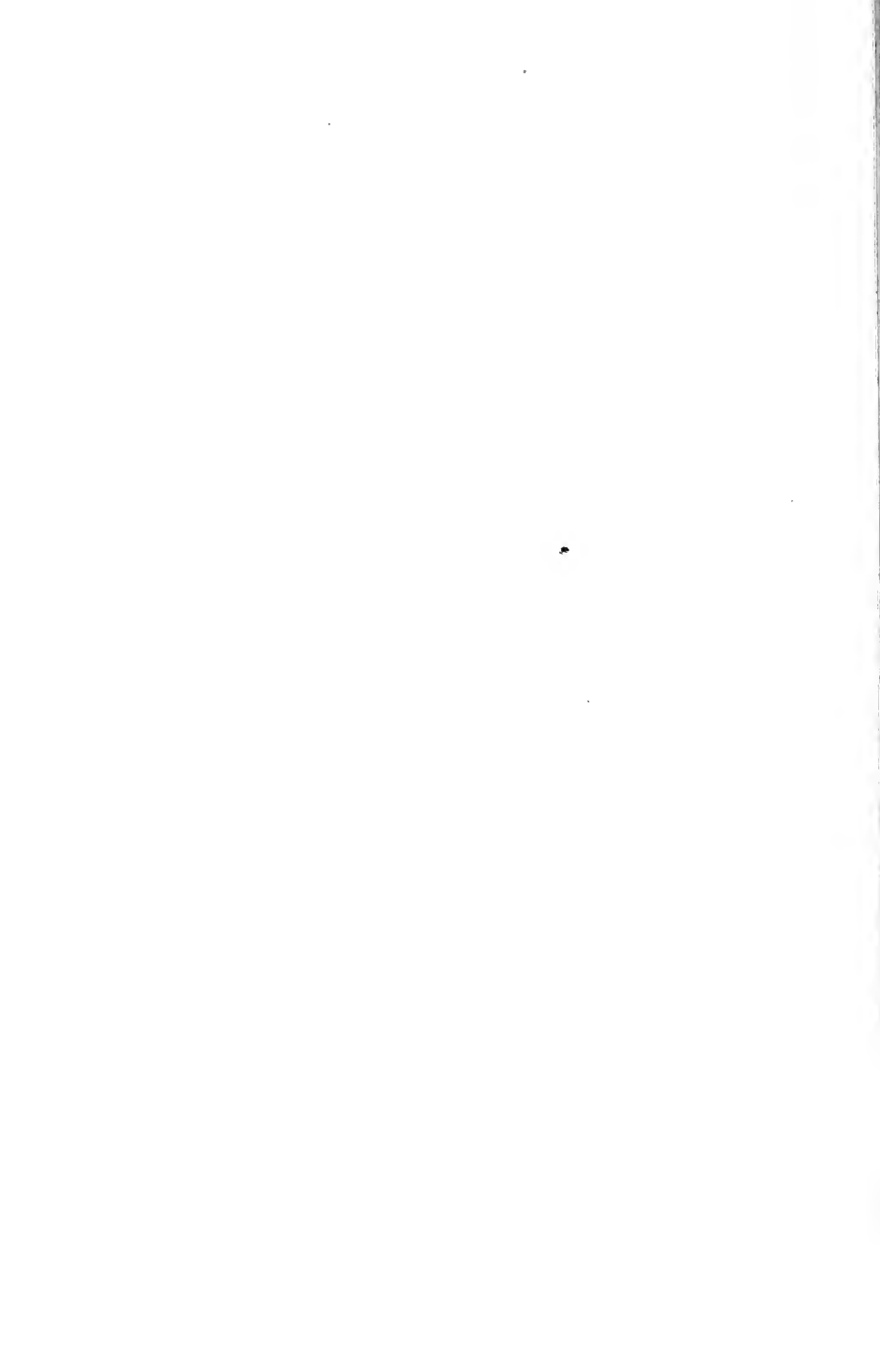
Discussed by: IRA REMSEN, Johns Hopkins University, Baltimore, Md. WILLIAM T. CAMPBELL, Boston Latin School, Boston, Mass. GEORGE F. STRADLING, Northeast Manual Training School, Philadelphia, Pa. JOHN M. COULTER, University of Chicago, Chicago, Ill. LYMAN C. NEWELL, Boston University, Boston, Mass. NEVIN M. FENNEMAN, University of Cincinnati, Cincinnati, O.

Science, N. S. Vol. xxix, No. 748. April 30, 1909,
pp. 708-711.

School Science and Mathematics, March-April, 1909.



EXECUTIVE PROCEEDINGS.



EXECUTIVE PROCEEDINGS.

REPORT OF THE GENERAL SECRETARY.

One of the most successful meetings in the history of the American Association, and in some regards the most successful, was brought to a close Friday evening, January 1, 1909, at Baltimore. Ample provisions for a large meeting were made by the local committee, and the expectations were fully realized. The total registration of the members of the Association was 1,088 and the affiliated societies reporting adds 117. The next largest registration to this was at Washington, in 1903, when 903 were recorded. But, as always, many in attendance were not registered, and a conservative estimate would bring the attendance of scientific men up to about 2,000. One striking feature in the attendance was the large number of men from the various Government services in Washington, who came over and lent their presence in the meetings of every section.

Great credit is due to the energy and efficiency of the local committee, of which Dr. William H. Welch was chairman and Professor Wm. J. A. Bliss secretary. The meeting places, mostly in the buildings of the Johns Hopkins University and Medical School, were ample and convenient, and the hotel accommodations excellent. There was not a hitch in the carrying out of the program: every want was provided for in advance.

The opening session was held in the audience room of McCoy Hall, Johns Hopkins University, at 10 A. M. Monday, December 28, 1908, with the retiring president, Professor E. L. Nichols, of Cornell University, in the chair, who introduced the incoming president, Professor T. C. Chamberlin, of the University of Chicago, who presided. Addresses of welcome were made on behalf of the educational institutions of the city by President Ira Remsen, on behalf of the local committee by Dr. Wm. H. Welch and on behalf of the city of Baltimore by the Mayor, Hon. J. Barry Mahool. It was recalled that when the Association met in Baltimore fifty years ago, the membership was only 1,000 and the attendance at the meetings only 200, while now the membership has grown to 7,000 and the Association has been divided into eleven sections, each devoted to a phase of scientific work, and even sections subdivided, in the case of Section C, chemistry, there being eight subsections, each with large attendance, and papers enough to occupy two or three days in the reading.

The presidential address by Professor E. L. Nichols, of Cornell University, was given in the hall of the Peabody Institute before a large audience of members and citizens of the town. The address was a masterly presentation of the thought that all the material advance of society is based on the discovery of laws and the establishment of principles by research in pure science; that the most of this research and of these contributions up to date have been made in the lands across the sea; that our universities are not properly providing for research, and that great improvement along these lines is possible, the recent noble bequest of Senator Vilas to the University of Wisconsin for the endowment of research professorships pointing the way.

After the presidential address a reception to the members of the Association and affiliated societies was tendered by President Ira Remsen at McCoy Hall. The reception was largely attended and was a very pleasant affair.

Sectional meetings began on Monday afternoon, and were continued till Friday evening, when all papers were read or otherwise disposed of. Certain of these sectional meetings were favored with record attendance, and with programs of exceptional interest and value. Section B reports the most successful meeting of its history. The joint meeting with the American Physical Society gave a record attendance. It was probably the largest gathering of physicists that has ever occurred in America. Eight sessions were held, and 54 papers presented. The dinner held at the Country Club on Tuesday evening had an attendance of 91 and was voted the pleasantest event in the history of the section.

Section E, in affiliation with the Geological Society of America, held a memorable symposium on "Correlation in Historical Geology." Sixteen papers were presented in this symposium, running through six sessions. A feature was a remarkable series of maps by Mr. Bailey Willis, showing the paleogeography of the continent of North America in many stages of its formation up to the present, showing what was certainly land, and certainly sea, areas sometimes land and sometimes sea, and the areas of uncertainty. Quite significant was the presentation of the logic of correlation by Professor T. C. Chamberlin, the first term in every series of phenomena to be interpreted being shown to be found in diastrophic changes.

The most important event in the week for Section F was the vice-presidential address by Professor E. B. Wilson, on "The Determination and Inheritance of Sex."

Section L reported a very successful series of meetings, thus proving the wisdom of its establishment last year. This section has adopted the plan of devoting each session to the discussion of a single topic. On Wednesday afternoon "American College Education" was the theme, discussed by Professors Josiah Royce, James H. Tufts and others. In his address as retiring vice-president, Commissioner Elmer

Ellsworth Brown pointed effectively the chaos that exists in American educational standards, and defined clearly some of the problems that must be solved to bring order out of this chaos. A session was devoted to the discussion of the needs and possibilities of the U. S. Bureau of Education.

The affiliated societies meeting with the Association this year were the American Society of Naturalists, the American Society of Biological Chemists, the American Anthropological Association, the American Folk Lore Society, the American Philosophical Association, the American Physical Society, the American Psychological Association, the American Physiological Society, the American Society of Vertebrate Paleontologists, the American Chemical Society, the American Society of Zoologists, the American Nature-Study Society, the American Mathematical Society, the American Federation of Teachers of the Mathematical and the Natural Sciences, the American Institute of Electrical Engineers, the American Alpine Club, the Association of American Geographers, the Association of Economic Entomologists, the Botanical Society of America, the Entomological Society of America, the Geological Society of America, the Society of American Bacteriologists, the Association of American Anatomists, the Southern Society for Philosophy and Psychology, the Sullivant Moss Society and the Wild Flower Preservation Society.

Some actions of the council of the Association are of general interest: A resolution was adopted authorizing the permanent secretary to send a letter of greeting to Dr. Martin H. Boyé, of Cooperstown, Pa., the sole surviving founder of the Association. It was resolved that the publishers of *Science* and *The Popular Science Monthly* be authorized to send *The Popular Science Monthly* in place of *Science* to any members of the Association who may specially request it.

An amendment to the constitution was introduced as follows: Amend Article 23, by the omission of the words "and secretary" after the word "vice-president," in the third line, and to insert after the words "preceding meeting," in the fourth line, the following words: "and the preceding secretary, and the presidents and secretaries of those affiliated societies which shall be designated by the council."

One of the pleasantest features of the week was the reception, largely attended, on Tuesday afternoon from 4 to 6.30, by the Maryland Historical Society at its rooms on Saratoga and St. Paul Streets.

Quite significant and worthy of attention was the symposium on "Tariff Revision," by Section I on Tuesday afternoon; with papers by Messrs. Farquhar, Hamilton, Orton and Holt, and discussion by Dr. J. Franklin Crowell, of the *Wall Street Journal*, and Mr. Seymour C. Loomis. The last named gentleman recommended that the laboratory method be introduced into the tariff management, by establishing a bureau in the Department of Commerce and Labor, composed of

experts, who will make scientific studies and recommendations to Congress, so removing the question from partisan politics.

Another valuable meeting was the symposium on "Public Health" in McCoy Hall on Thursday afternoon, with addresses by Dr. Harvey W. Wiley, of the Bureau of Chemistry, Washington, on "The Nation's Pure Food Problem"; by Dr. L. O. Howard, Chief of the Bureau of Entomology, on "The Economic Loss to the People of the United States through Insects that Carry Disease"; by Dr. Horace Fletcher, on "Vital Economics"; by Professor Irving Fisher, of Yale, on "Progress of the Movement for Health Reform"; and by Dr. Walter Wyman, of Washington, on "Public Health Administration." The very great preventable waste of human life, which is going on around us, was forcibly presented, and recommendations made for our government to take an intelligent and earnest interest in conservation of health as our greatest resource.

The crowning feature of the week was the Darwin Centenary Memorial. The entire day, Friday, was devoted to the celebration. The great audience room of McCoy Hall was filled to the doors during the presentation of the papers. The president of the Association, Dr. T. C. Chamberlin, presided and opened the session with an address. Then followed Dr. Edward B. Poulton, of Oxford University, England, who spoke very entertainingly of "Fifty Years of Darwinism"; Professor John M. Coulter, of the University of Chicago, spoke on "The Theory of Natural Selection from the Standpoint of Botany"; and Professor E. B. Wilson, of Columbia University, discussed "The Cell in Relation to Heredity and Evolution." In the afternoon session Dr. Daniel T. MacDougal, of the Carnegie Institution, told of the "Direct Effect of Environment"; Dr. W. E. Castle, of Harvard University, explained "The Behavior of Unit Characters in Heredity"; Dr. Charles B. Davenport gave an account of "Mutation"; Dr. Carl H. Eigenmann, of Indiana University, discussed "Adaptation"; Professor Henry F. Osborn, of Columbia University, gave "Recent Paleontological Evidence of Evolution." This series of addresses has been published in a memorial volume.

The close of the week's functions was the Darwin memorial dinner at Lehmann's Hall. About 300 sat at table, and after the repast the president of the Association, Dr. Chamberlin, presented Professor H. F. Osborn as the toastmaster. Professor Osborn gave an interesting reminiscence of his youth, when working in Huxley's laboratory. Darwin visited the place, as the guest of Huxley, and the young Osborn, being the only American present, was introduced to Darwin. He spoke also of the spirit of Darwin and of Huxley which came to Johns Hopkins with Martin and with Brooks, both now gone. Dr. William H. Welch was then introduced and spoke of "The Debt of Medicine to Darwin"; Dr. Albrecht Penck, of the University of Berlin, spoke on "The Geographical Factor in Evolution," and Professor

Edward B. Poulton, of Oxford, gave a lively and entertaining talk on "The Personality of Darwin." Professor Chamberlin then closed the meeting with words of thanks and praise for those in Baltimore who so splendidly entertained the Association.

At the final general meeting on Friday morning a resolution, introduced by Mr. Edward W. Morley, was passed, as follows:

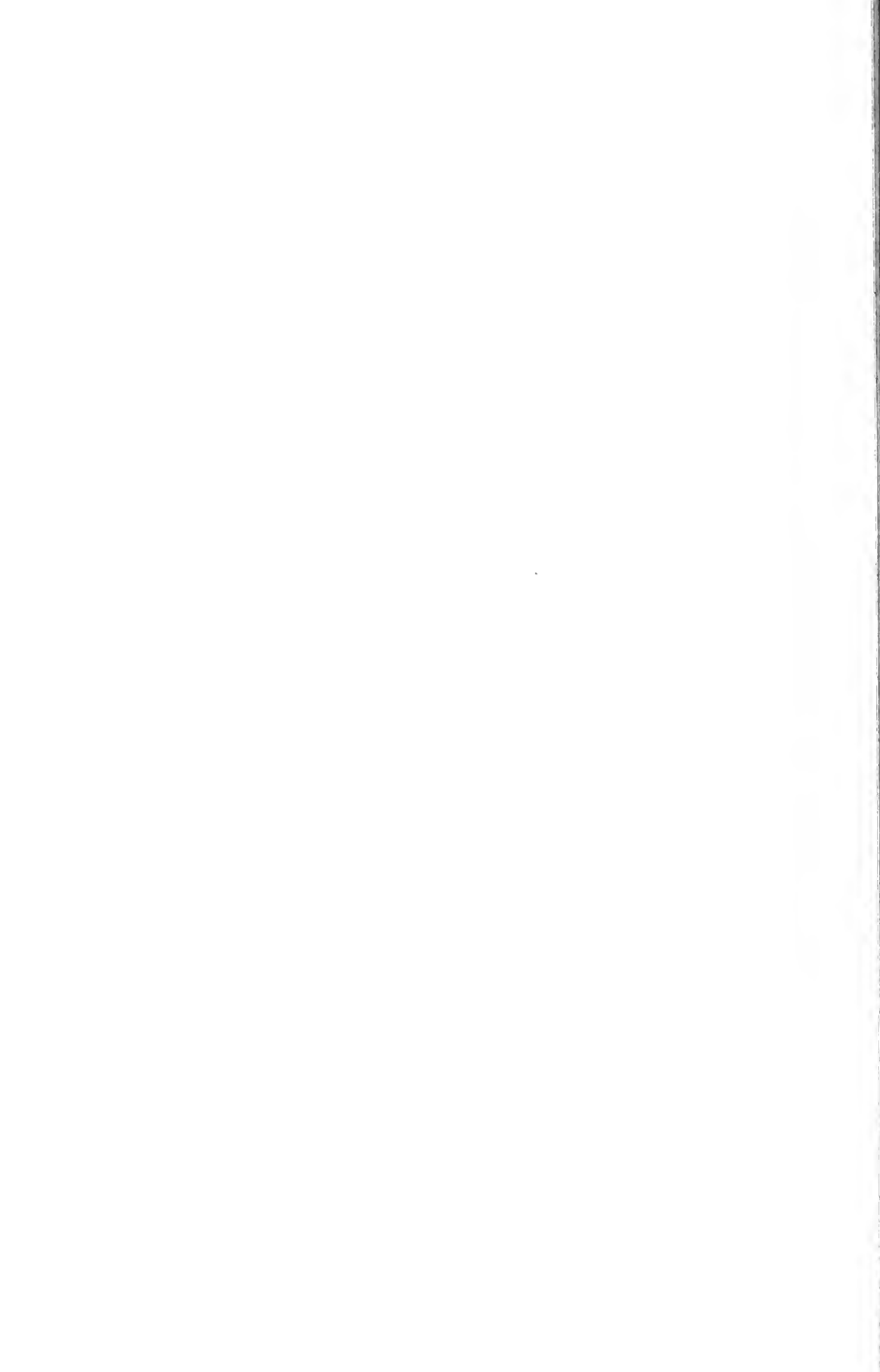
"Resolved, That the American Association for the Advancement of Science sincerely thanks the Johns Hopkins University and the other institutions of the city and also the citizens of Baltimore, for their generous hospitality during our meeting."

At the meeting of the general committee it was voted to hold the next meeting during convocation week, 1909-10, at Boston, and recommendations to following councils favoring successive annual meetings at Minneapolis, Washington, Cleveland and Toronto. It was voted that a summer session in 1910 at Honolulu would be desirable if suitable arrangements can be made.

Officers were elected as follows: President, Dr. David Starr Jordan, of Leland Stanford Junior University; General Secretary, Professor Dayton C. Miller, Case School of Applied Science, Cleveland; Secretary of Council, Dr. F. G. Benedict, of the Carnegie Institution; Secretary of Section H, Professor George Grant MacCurdy, of Yale University; Secretary of Section K, Dr. G. T. Kemp, Champaign, Ill. Vice-presidents of the various sections were elected as follows: Section A, Professor E. W. Brown, of Yale University; Section B, Dr. L. A. Bauer, of the Carnegie Institution; Section C, Professor Wm. McPherson, of Ohio State University; Section D, Mr. J. F. Hayford, of the U. S. Coast and Geodetic Survey, Washington; Section E, Dr. R. W. Brock, director of the Canadian Geological Survey; Section F, Professor W. E. Ritter, University of California; Section G, Professor D. P. Penhallow, McGill University, Canada; Section H, Professor Wm. H. Holmes, chief of the Bureau of Ethnology, Washington; Section I, Dr. Carroll D. Wright, of Clark University; Section K, Dr. C. S. Minot, Harvard University Medical School; Section L, Dr. James E. Russell, Teachers College, Columbia University.

J. PAUL GOODE,
General Secretary.

University of Chicago.



REPORT OF THE TREASURER.

1908.

In compliance with Article 15 of the Constitution, and by direction of the Council, I have the honor to submit the following report, showing receipts, disbursements and disposition of funds of the Association for the year ended December 31, 1908.

Receipts have come into the keeping of the Treasurer from three sources, namely, from Life Membership commutations, from a gift by an unknown friend of the Association, and from interest on invested funds. The total amount of these receipts is \$2,427.69.

Disbursements made in accordance with the directions of the Council amount to \$532.30.

The total amount of funds of the Association deposited in banks and subject to the order of the Treasurer December 31, 1908, is \$19,638.84.

The details of receipts, disbursements and disposition of funds are shown in itemized statement on following pages, dated April 1, 1909.

THE TREASURER IN ACCOUNT WITH THE AMERICAN ASSOCIATION FOR THE
ADVANCEMENT OF SCIENCE.

1908.	Dr.	
Jan. 1.	To balance from last account.....	\$17,743.45
Mch. 23.	To 26 Life Memberships.....	1,300.00
	To gift from unknown friend of the Association	500.00
Dec. 31.	To interest on funds deposited in banks as follows:	
	From Cambridge Savings Bank, Cam- bridge, Mass.....	\$41.94
	From Emigrant Industrial Savings Bank New York, N. Y.....	119.32
	From Metropolitan Savings Bank, New York, N. Y.....	116.60
	From Union Square Savings Bank, New York, N. Y.....	114.22
	From U. S. Trust Co., New York, N. Y.	162.43
	From International Banking Corpora- tion, Washington, D. C.....	73.18
		627.69
	Total	\$20,171.14

THE TREASURER IN ACCOUNT WITH THE AMERICAN ASSOCIATION FOR THE
ADVANCEMENT OF SCIENCE.

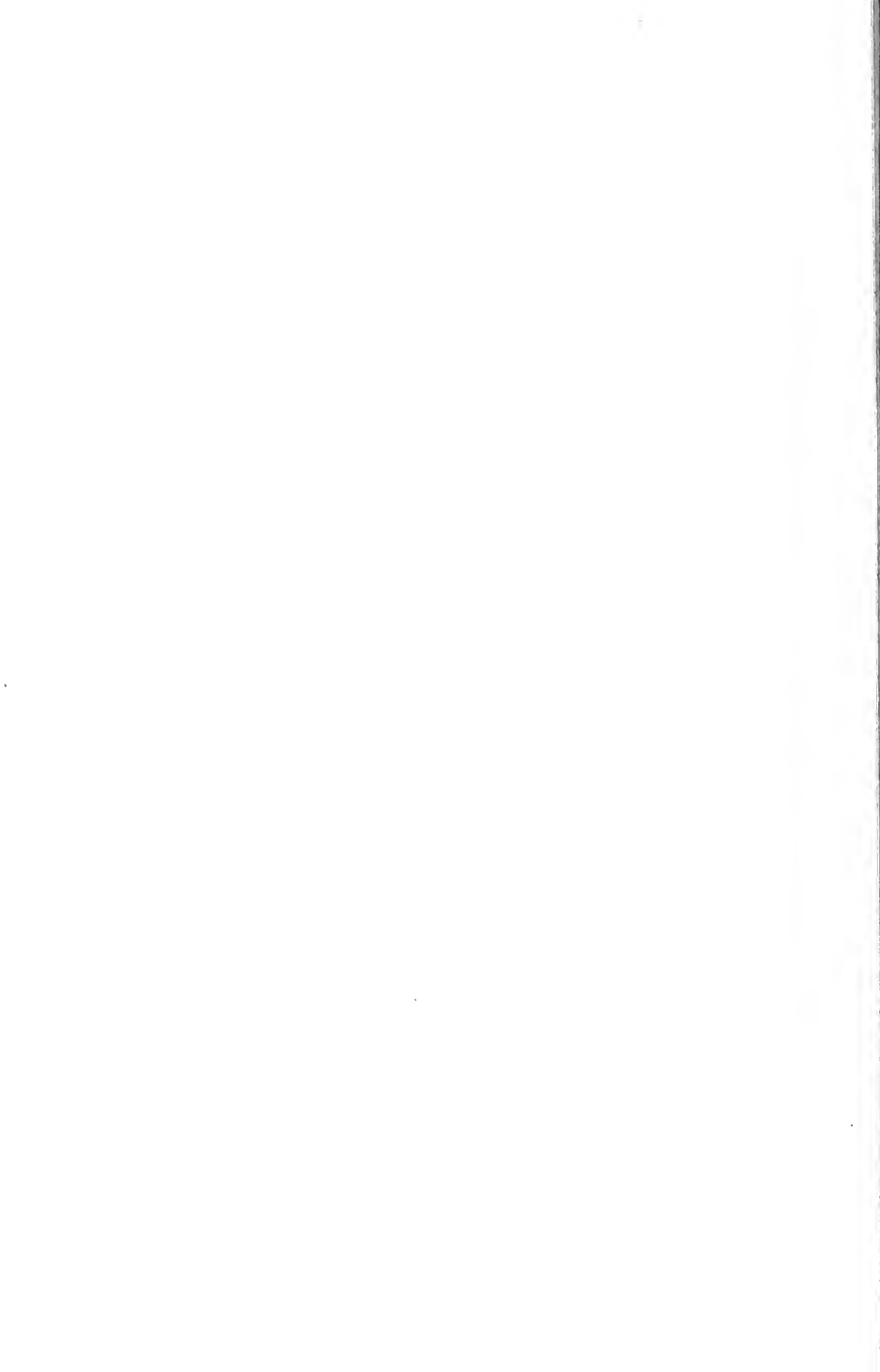
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1908.

Mch. 23.	By interest on 195 Life Memberships paid to Permanent Secretary	\$ 332.30
Apr. 13.	By grant paid to Concilium Bibliographicum....	100.00
Apr. 24.	By grant paid to C. H. Eigenmann.....	100.00
Dec. 31.	By cash on deposit in banks as follows:	
	In Cambridge Savings Bank, Cam- bridge, Mass.....	\$ 1,080.42
	In Emigrant Industrial Savings Bank, New York, N. Y.....	3,085.96
	In Metropolitan Savings Bank, New York, N. Y.....	3,003.53
	In Union Square Savings Bank, New York, N. Y.....	2,941.98
	In U. S. Trust Co., New York, N. Y.....	6,162.43
	In International Banking Corpora- tion, Washington, D. C.....	2,497.57
	In Fifth Avenue Bank, New York, N. Y.....	866.95
		<hr/>
		19,638.84
	Total	<hr/> \$20,171.14

I hereby certify that the foregoing account is correctly cast and properly vouched.

THEO. N. GILL,
Auditor.



REPORT OF THE PERMANENT SECRETARY.

The matters heretofore referred to in the report of the Permanent Secretary, in so far as they relate to the annual meeting, have been covered in the report of the executive proceedings prepared by the General Secretary, and duplication is avoided by omitting them under the present head.

The following is a comparative statement of the roll of members of record at the time of the annual meetings as noted:

	New York	Chicago	Baltimore
Surviving founders	2	2	1
Living patrons	2	2	2
Living honorary fellows.....	3	3	1
Fellows	1847	1862	1969
Members	2644	3189	4161
	<hr/>	<hr/>	<hr/>
Totals	4498	5058	6134

L. O. HOWARD,

Permanent Secretary.

L. O. HOWARD, PERMANENT SECRETARY, IN
TION FOR THE ADVANCE-

From January 7, 1908,

DR.

To balance from last account.....		\$15,043.53
Annual dues, 1908.....	\$7,366.00	
Annual dues, 1909.....	578.00	
Annual dues, previous years.....	672.00	
Admission fees.....	1,250.00	
Associate fees.....	12.00	
Life membership fees.....	200.00	
		10,078.00
Publications	84.00	
Binding	4.40	
Interest	61.29	
Other receipts	374.49	
		524.18
		\$25,645.71

I hereby certify that I have examined this account, and that it is correctly cast and vouched. The balance of \$1,564.56 was on deposit with the following Washington institutions:

American National Bank.....		\$1,233.00
American Security & Trust Co.....		328.98
National Savings & Trust Co.....		2.58
		\$1,564.56

THEO. N. GILL,
Auditor.

ACCOUNT WITH THE AMERICAN ASSOCIATION OF SCIENCE.

to October 31, 1908.

Cr.

By publications:

To publishers <i>Science</i>	\$11,576.67	
New York and Ithaca Volume.....	2,602.78	
Reprints	53.25	
On account Chicago Volume.....	800.00	
		\$15,032.70

By expenses Chicago and Hanover meetings:

Chicago program, maps and lists.....	\$ 402.35	
Hanover program	65.00	
Secretaries of sections, etc.....	738.43	
Other expenses, help, etc.....	127.28	
		1,333.06

By general office expenses, including propagandic work:

Postage	\$ 2,392.31	
Extra clerical help.....	404.76	
Circulars and blanks.....	282.15	
Stationery, office supplies, etc.....	81.20	
Express	43.25	
Telegrams	36.40	
		3,240.07

By salaries:

Permanent Secretary.....	\$ 1,201.77	
Assistant Secretary.....	833.33	
Assistant Secretary.....	500.00	
		2,535.10

By miscellaneous disbursements:

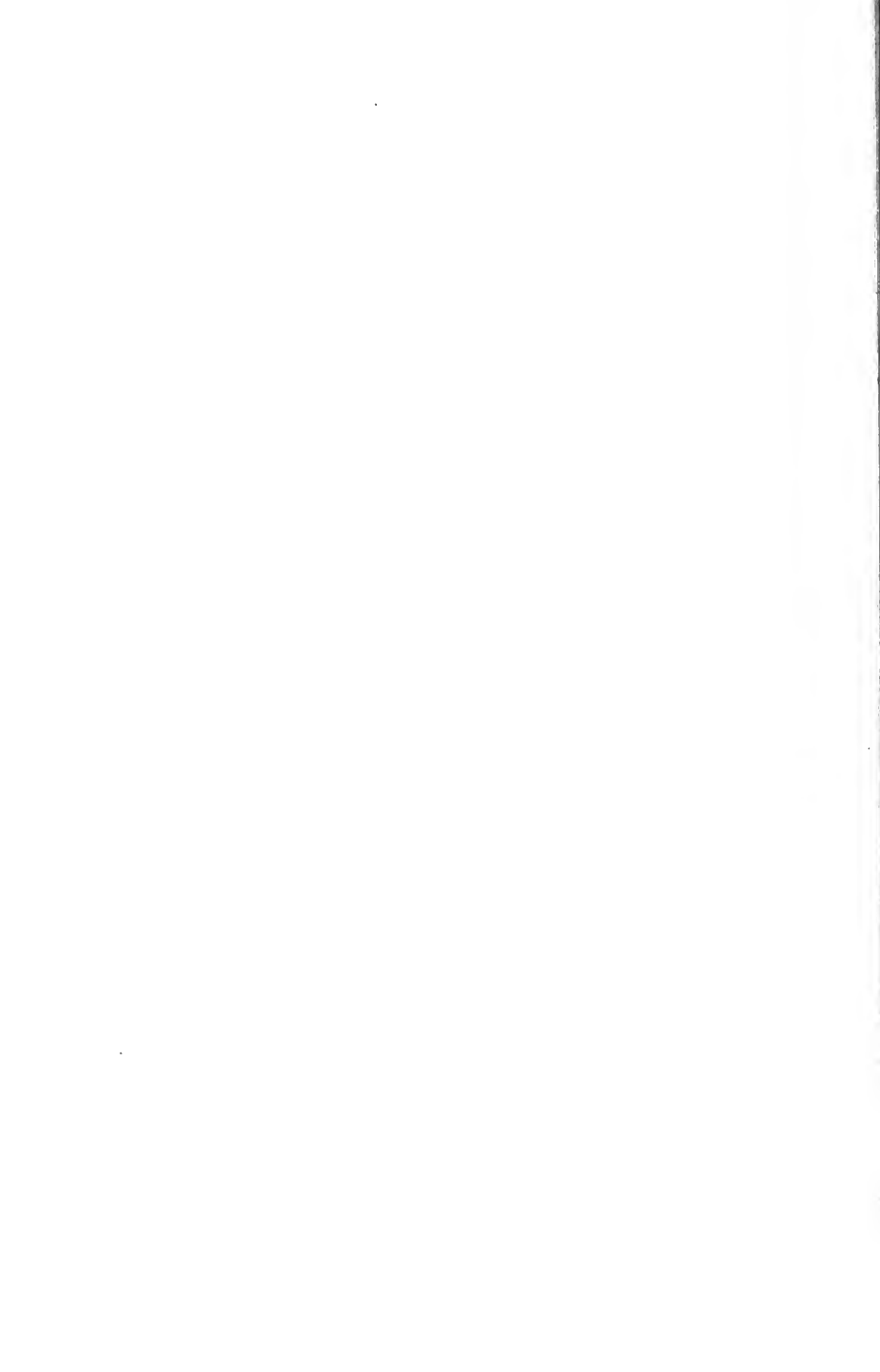
Cash paid Treasurer.....	\$ 1,800.00	
Dues returned, etc.....	104.00	
Old storage bills.....	22.00	
Back volumes bought.....	4.50	
Binding	9.72	
		1,940.22

\$24,081.15

By balance to new account.....

1,564.56

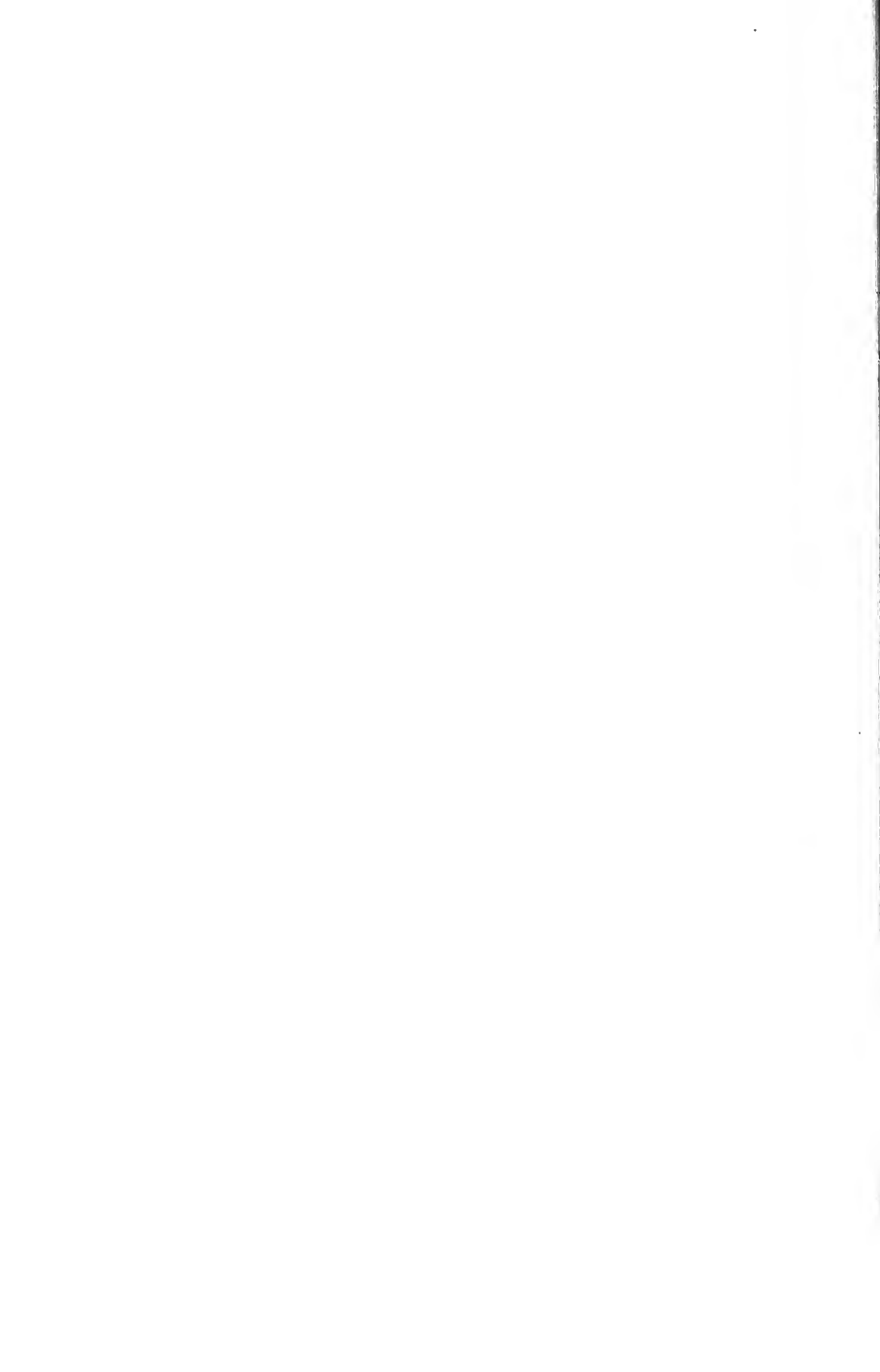
\$25,645.71



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(For Boston Index, see page 651.)



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BOSTON, MASS.

DECEMBER 27, 1909 to JANUARY 1, 1910

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ADDRESS

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THE RETIRING PRESIDENT OF THE
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A GEOLOGIC FORECAST OF THE FUTURE OPPORTUNITIES
OF OUR RACE.

THOMAS C. CHAMBERLIN, Ph. D., LL. D.

Science, N. S. Vol. xxvii, No. 783, December 31, 1909, pp 937-949.

SECTION A.

Mathematics and Astronomy.

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ADDRESSES AND PAPERS PRESENTED.

For full report of secretary of Section A, see *Science*, N. S. Vol. xxxi, No. 787, January 28, 1910, pp. 153-159.

The Thesis of Modern Logistic.

Address by CASSIUS J. KEYSER, Columbia University, Vice-President and Chairman of Section A for 1908.

Science, N. S. Vol. xxx, No. 783, December 31, 1909, pp. 949-963.

On the Determination of Latitude and Longitude in a Balloon.
C. RUNGE.

On Certain Physical Hypotheses sufficient to explain an Anomaly in the Moon's Motion.

E. W. BROWN, Yale University.

The Work of the International Commission on the Teaching of Mathematics.

D. E. SMITH, Columbia University.

American Mathematical Monthly, January, 1910.

The Value of the Solar Constant of Radiation.

C. G. ABBOT, Smithsonian Institution.

Astrophysical Journal.

A New Mode of Measuring the Intensities of Spectral Lines.

F. W. VERY, Westwood Astrophysical Observatory.

The Absorption of Light by the Ether of Space.

F. W. VERY, Westwood Astrophysical Observatory.

The Fireball of October 7, 1909.

F. W. VERY, Westwood Astrophysical Observatory.

On a Recent Hypothesis and the Motion of the Perihelion of Mercury.

E. W. BROWN, Yale University.

The Heliocentric Position of Certain Coronal Streams.

J. A. MILLER, Swarthmore College, and W. R. MARIOTT.

Bulletin, Lick Observatory.

The Mutual Relation of Magnifying Power, Illumination, Aperture
and Definition in Telescopic Work.

DAVID TODD, Amherst College.

La Contribution Non-euclidienne à la Philosophie.

G. B. HALSTED, Greeley, Col.

Mémoires de la Société des Sciences, Physiques, et
Naturelles de Bordeaux, Tome v (6^e Série), 1909.

Declination of the Moon for Greenwich Mean Time.

H. E. WETHERILL, Philadelphia, Pa.

Meteorological Waves of Short Period and Allied Solar Phenomena.

H. W. CLOUGH, Arcade, N. Y.

Recent Work with the 6-inch Transit Circle of the United States
Naval Observatory.

MILTON UPDEGRAFF, U. S. Naval Academy.

The Canali Novæ of Mars.

PERCIVAL LOWELL, Massachusetts Institute of Technology.

Astronomische Nachrichten, Kiel.

Peculiar Star Spectra indicating Selective Absorption of Light in Space.

V. M. SLIPHER, Lowell Observatory.

Personality with the Transit Micrometer.

R. M. STEWART.

Water Vapor on Mars.

F. W. VERY, Westwood Astrophysical Observatory.

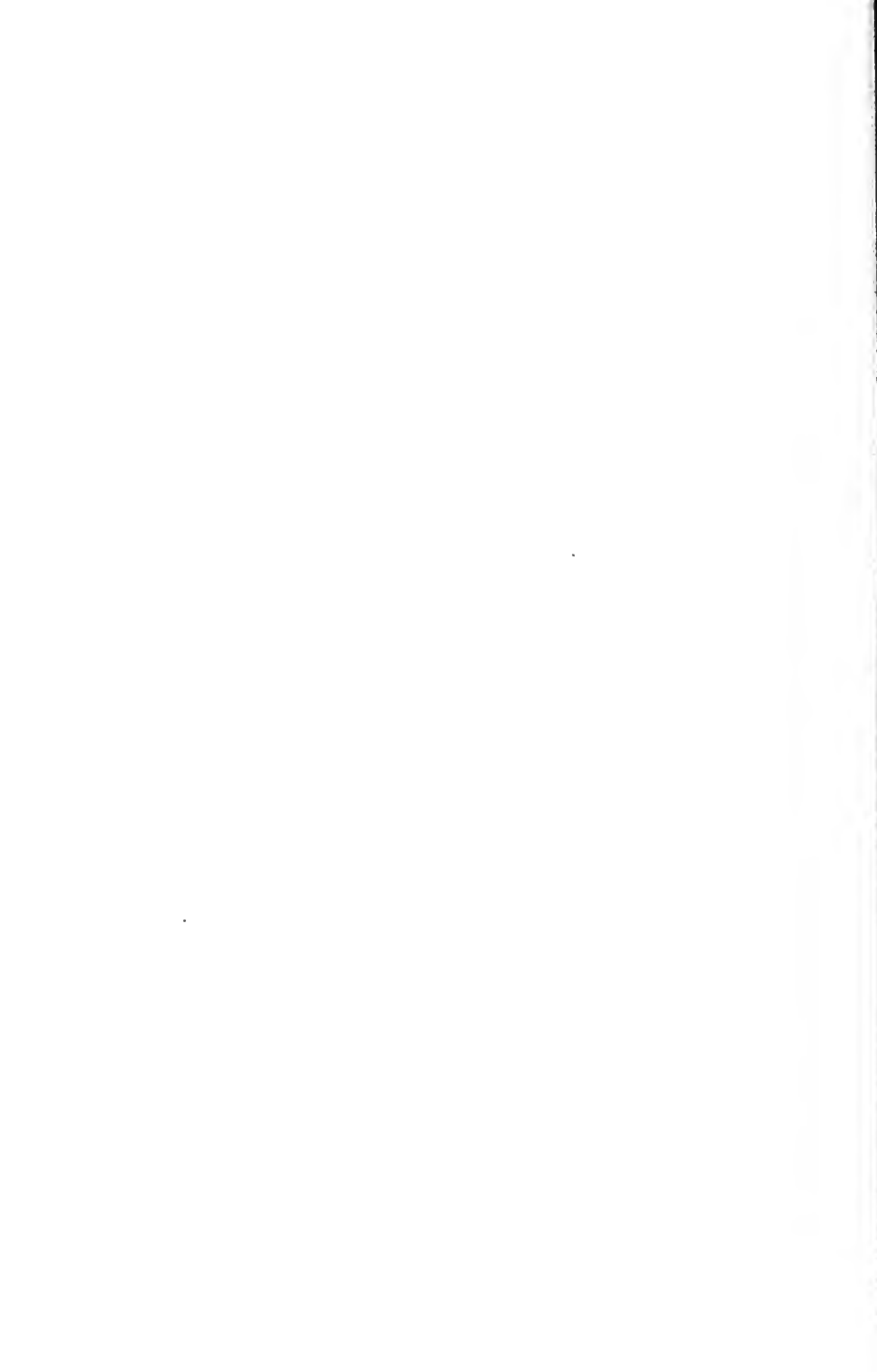
Lowell Observatory Bulletin, No. 43, pp. 239-240.

The Existence of Anomalous Fluctuations in the Latitude as shown by Simultaneous Observations with the Zenith Telescope and the Reflex Zenith Tube of the Flower Observatory.

C. L. DOOLITTLE, University of Pennsylvania.

Visual Observations of Variable Stars at the Harvard College Observatory.

LEON CAMPBELL.



SECTION B.

PHYSICS.

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ADDRESSES AND PAPERS PRESENTED.

For full report of secretary of Section B, see *Science*, N. S. Vol. xxxi, No. 798, April 15, 1910, pp. 588-591.

Some Reforms Needed in the Teaching of Physics.

Address by KARL EUGEN GUTHE, University of Michigan,
Vice-President and Chairman of Section B for 1908.

Science, N. S. Vol. xxxi, No. 784, January 7, 1910,
pp. 1-7.

JOINT SESSION, SECTIONS A AND B.

On the Determination of Latitude and Longitude in a Balloon.

PROF. C. RUNGE, University of Berlin.

The Ruling of Diffraction Gratings.

A. A. MICHELSON, University of Chicago.

On Certain Physical Hypotheses sufficient to explain an Anomaly in
the Moon's Motion.

ERNEST W. BROWN, Yale University.

JOINT SESSION, SECTIONS B AND L.

The Relations of Colleges to Secondary Schools with respect to Physics.

E. H. HALL, Harvard University.

What Specialization has done for Physics Teaching.

JOHN F. WOODHULL, Teachers College, Columbia University.

Science, N. S. Vol. xxxi, No. 802, May 13, 1910,
pp. 729-731.

The Quantitative Teaching of Kinetics in Secondary Schools.
N. H. BLACK, Roxbury Latin School, Boston.

The Place of "g" in High School Teaching, and other topics.
A. G. WEBSTER, Clark University.

College Attitude toward Preparatory Work.
C. R. MANN, University of Chicago.

JOINT SESSION, SECTION B, A. A. A. S., AND AMERICAN
PHYSICAL SOCIETY.

Temperature Coefficient of Electrical Resistance, Tungsten, Molybdenum, Nickel and Nichrome.
A. A. SOMERVILLE.

Physical Review, April, 1910.

The Flow of a Gas through a Capillary Tube.

WILLARD J. FISHER.

Physical Review, Vol. xxx, February, 1910, p. 269.

Effect of Surface Tension upon a Falling Jet of Water.

F. R. WATSON.

Physical Review, Vol. xxx, February, 1910, p. 270.

The Variation of the Hall Effect in Metals with Change of Temperature.

ALPHEUS W. SMITH.

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The Effect of Pressure on the Electrolytic Rectifier.

A. P. CARMAN and G. J. BALZER.

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HENRY G. GALE and HARVEY B. LEMON.

Astrophysical Journal, Vol. xxxi, No. 1, January, 1910.

The Spectra of Some Gases in the Region of Extremely Short Wavelength.

THEODORE LYMAN.

Proceedings, American Academy of Arts and Sciences,
Vol. xlv, No. 10, February, 1910.

The Variation of the Hall Effect with the Temperature in the Case of the Principal Magnetic Metals.

THOMAS C. MCKAY.

The Rectifying Effect in Point and Plane Discharge.

ROBERT F. EARHART and CHAS. H. LAKE.

Physical Review, 1910.

Photographic Photometry, and Some Interesting Photographic Phenomena.

CHARLES F. BRUSH.

Note on "Changes in Density of the Ether, and Some Optical Effects of Changes in Ether Density."

CHARLES F. BRUSH.

The Tone Quality of the Flute.

D. C. MILLER.

An Instrument for Projecting and Recording Sound Waves.

D. C. MILLER.

Physical Review, 1910.

The Magnetic Measurements on Board the "Carnegie" in 1909.

L. A. BAUER.

Terrestrial Magnetism and Atmospheric Electricity,
Vol. xv, March, 1910.

The Principle of Relativity.

D. F. COMSTOCK.

Science, N. S. Vol. xxxi, No. 803, May 20, 1910,
pp. 767-772.

"Bound Mass" and the Fitzgerald-Lorentz Contraction.

WILL C. BAKER.

Physical Review, 1910.

Physical Properties of Binary Liquid Mixtures.

J. C. HUBBARD.

Physical Review, March, 1910.

On the Use of Polar Coördinates in Thermodynamics.

J. C. HUBBARD.

Physical Review, March, 1910.

The Theory of the Vibration Galvanometer.

FRANK WENNER.

Bulletin, Bureau of Standards, Vol. vi, No. 3.

Coefficients of Linear Expansion at Low Temperatures.

H. G. DORSEY.

Physical Review, Vol. xxx, No. 2, February, 1910.

The Freezing of Mercury at High Pressures.

P. W. BRIDGEMAN.

Phenomena of Spark Discharge through Wire Conductors.

FRANCIS E. NIPHER.

Transactions, Academy of Sciences, St. Louis, Vol.
xix, No. 1, pp. 1-20. (Pl. i-x.)

Some Minute Phenomena of Electrolysis.

H. W. MORSE.

A New Method of Measurement of Small Angles.

C. W. CHAMBERLAIN.

Physical Review, 1910.

The Photographic Evidence for Dispersion of Light in Space:—Is it a purely Photographic Phenomenon?

H. E. IVES.

Physical Review, February, 1910.

Astrophysical Journal, March, 1910.

On the Secondary β Radiation from Solids, Solutions, and Liquids.

S. J. ALLEN.

The Effect of Filter Paper upon the Mass and Form of the Deposit in the Silver Coulometer.

E. B. ROSA, G. V. VINAL, and A. S. McDANIEL.

Experiments in Impact Excitation with the Lepel Singing Arc.

GEORGE NASMYTH.

Physical Review (abstract), Vol. xxx, No. 2, February, 1910. (Complete article later.)

On the Coefficients of Diffusion of the Emanation and the Active Deposit Particles of Actinium.

J. C. McLENNAN.

On the Relative Numbers of Positive and Negative Ions present in Atmospheric Air.

A. THOMSON.

Note on the Cause of the Discrepancy between the Observed and Calculated Temperatures after Expansion in the Space between the Plates of a Wilson Expansion Apparatus.

R. A. MILLIKAN, E. K. CHAPMAN and H. W. MOODY.

Physical Review, March, 1910.

Some New Values of the Positive Potentials assumed by Metals under the Influence of Ultra-violet Light.

R. A. MILLIKAN.

Physical Review, March, 1910.

The Second Order Effect of Ether Drift on the Intensity of Radiation.

A. TROWBRIDGE and C. E. MENDENHALL.

The Rotary Dispersion of Quartz at -190° C. and Observations at other Temperatures.

F. A. MOLBY.

Physical Review (abstract), Vol. xxx, No. 1, January, 1910. (Complete article later.)

The Pyrheliometric Scale and the Solar Constant.

C. G. ABBOT.

Astrophysical Journal, 1910.

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F. A. SAUNDERS.

Astrophysical Journal, 1910.

The Relative Motion of the Earth and the Ether.

H. A. WILSON.

A Study of the Multiple Reflection of Short Electric Waves between two Reflecting Surfaces.

L. E. WOODMAN and H. W. WEBB.

A Hot Air Engine Indicator Diagram.

A. G. WEBSTER.

The Nitrogen Thermometer from Zinc to Palladium.

A. L. DAY and R. B. SOSMAN.

On Calcium Clouds in Space.

DR. STIFER. (Presented by Percival Lowell.)

The Second Postulate of Relativity.

R. C. TOLMAN.

The Terminal Velocity of Fall of Small Spheres in Air. (Read by title.)

JOHN ZELENY and L. W. MCKEEHAN.

Physikalische Zeitschrift, February, 1910.

Physical Review, 1910.

The Present State of our Knowledge concerning Permanent Magnetism. (Read by title.)

A. A. KNOWLTON.

Terrestrial Magnetism and Atmospheric Electricity,
March, 1910.

The Heat of Dilution of Aqueous Salt Solution. (Read by title.)

F. L. BISHOP.

Physical Review, 1910.

Uranous and Uranyl Bands. A Very Fine Absorption Solution Spectrum. (Read by title.)

W. W. STRONG.

Physical Review, February, 1910.

Insulation of Observatory Domes for Protecting Telescopes and other Apparatus against Extremes of Heat and Cold. (Read by title.)

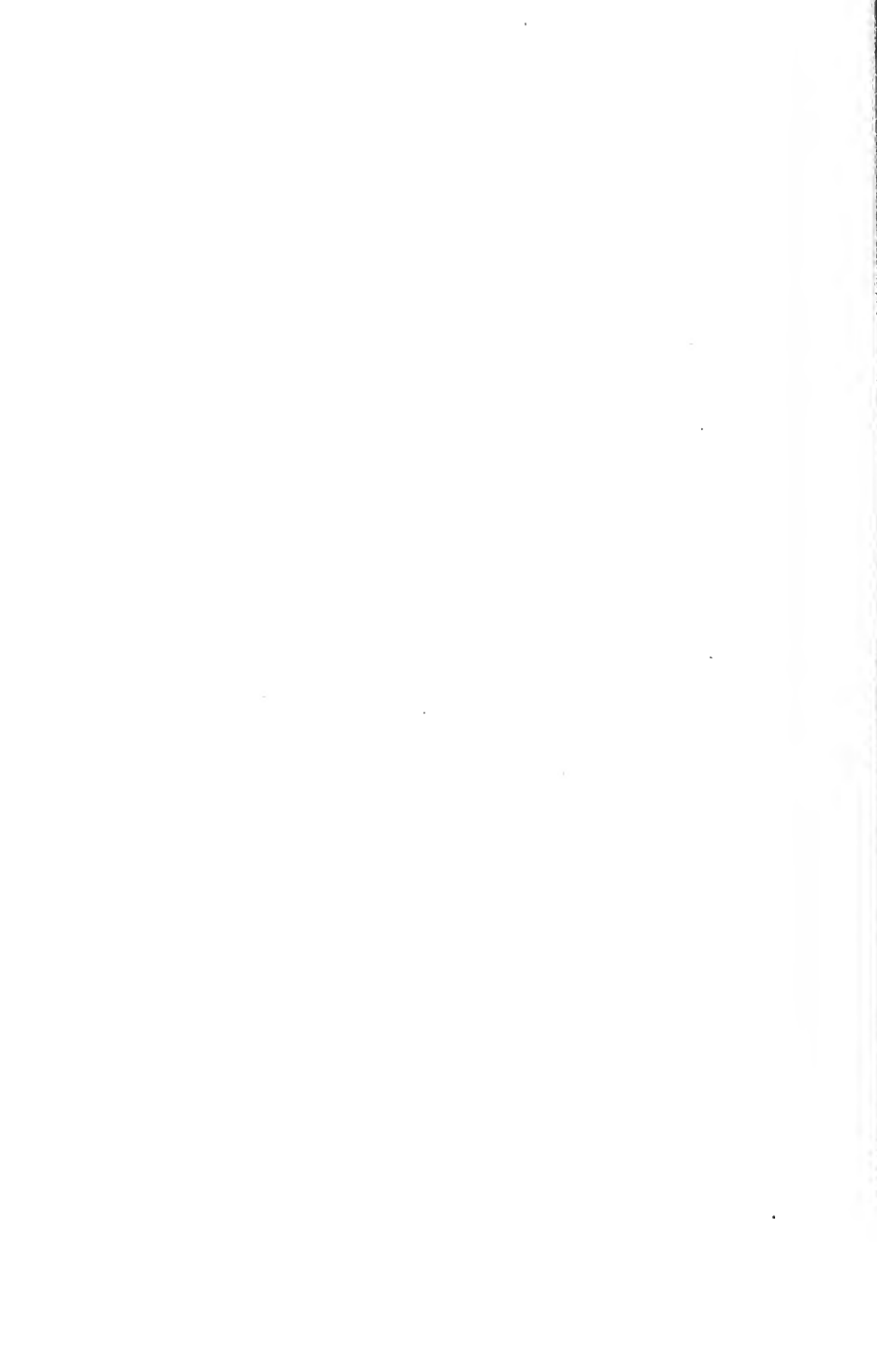
DAVID TODD.

On the Free Vibrations of a Lecher System. (Read by title.)

F. C. BLAKE and CHARLES SHEARD.

Thunderstorm Electricity. (Read by title.)

W. W. STRONG.



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CHEMISTRY.

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ADDRESSES AND PAPERS PRESENTED.

For full report of joint meetings of Section C, A. A. A. S. and American Chemical Society, see *Science*, N. S. Vol. xxxi, No. 790, February 18, 1910, pp. 268-276; also, No. 791, February 25, 1910, pp. 307-319.

GENERAL SESSION.

The Past and Future of the Study of Solutions.

Address by LOUIS KAHLBERG, University of Wisconsin, Vice-President and Chairman of Section C for 1908.

Science, N. S. Vol. xxxi, No. 785, January 14, 1910, pp. 41-52.

Report for the International Committee on Atomic Weights.

F. W. CLARKE.

Methods Employed in Precise Chemical Investigations.

T. W. RICHARDS.

Publication No. 125, Carnegie Institution of Washington, 1910.

On the Constitution of Curcumine, the Coloring Matter of Turmeric.

C. LORING JACKSON and LATHAM CLARKE.

Journal, American Chemical Society.

The Application of Physical Chemistry to the Study of Oleoresins.

CHARLES H. HERTY.

The Function of Chemistry in College Education.

LYMAN C. NEWELL.

The Cause of Color in Organic Compounds.

RICHARD S. CURTISS.

Science, N. S. Vol. xxxi, No. 790, February 18, 1910, p. 268.

The United States Pharmacopœia and the American Chemical Society.
JOSEPH P. REMINGTON.

J. A. R. Newlands.

CHARLES E. MUNROE.

Documents deposited with Smithsonian Institution.

The Chemist's Place in Industry.

A. D. LITTLE.

Journal, Industrial and Engineering Chemistry,
February, 1910.

Some Chemistry of Artificial Light. (Experimentally illustrated.)

W. R. WHITNEY, President, American Chemical Society.

Science, N. S. Vol. xxxi, No. 788, February 4, 1910.
pp. 161-171.

DIVISION OF INDUSTRIAL CHEMISTS AND CHEMICAL
ENGINEERS.

A. D. LITTLE, *Chairman*.

B. T. B. HYDE, *Secretary*.

Losses in the Storage of Coal.

HORACE C. PORTER and F. K. OYITZ.

The Correct Melting Point of Trinitrotoluene.

A. M. COMEX.

Bacterial Activity as a Corrosive Influence in the Soils.

RICHARD H. GAINES.

Journal, Industrial and Engineering Chemistry, Vol. ii.

A Convenient Method of Refrigeration for Analytical and Industrial Investigations at Low Temperature (-75° C).

JAMES OTIS HANDY.

Journal, Industrial and Engineering Chemistry, March, 1910.

The Present Condition of the Birch Oil Industry in the United States.

EDWARD HART.

Some Variations in the Official Determination of Volatile Matter in Coal.

A. C. FIELDNER and J. D. DAVIS.

Practical Corrosion Tests of Iron.

W. D. RICHARDSON.

Methods for Testing Commercial Anhydrous Liquid Ammonia, and Results.

W. D. RICHARDSON.

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F. B. CARPENTER, *Chairman.*

J. E. BRECKENRIDGE, *Secretary.*

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G. A. FARNUM, for the Committee on Phosphoric Acid.

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W. D. BIGELOW, *Chairman*.

W. D. B. PENNIMAN, *Secretary*.

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Industrial Bacteriology as a Field for Bio-chemical Investigation.

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LYMAN C. NEWELL, *Chairman.*

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L. J. CURTMAN.

Conditions under which Secondary School Teachers of Chemistry Conduct their Work.

ALBERT L. SMITH.

School Science and Mathematics, March, 1910.

Conditions and Equipment in Secondary Schools.

CHARLES R. ALLEN.

Elementary Chemistry Teaching as a Means of Developing the Power of Independent Scientific Reasoning.

ARTHUR A. BLANCHARD.

The First Course in Chemistry for Secondary Schools.

M. D. SOHON.



SECTION D.

Mechanical Science and Engineering.

OFFICERS OF SECTION D.

Vice-President and Chairman of the Section.

JOHN F. HAYFORD, Evanston, Ill.

Secretary.

G. W. BISSELL, East Lansing, Mich.

Member of Council.

C. A. WALDO, St. Louis, Mo.

Sectional Committee.

GEORGE F. SWAIN, Vice-President, 1908; JOHN F. HAYFORD, Vice-President, 1909; G. W. BISSELL, Secretary.

A. M. GREENE, JR., 1 year; J. B. WEBB, 2 years; J. E. BOYD, 3 years; ARTHUR H. BLANCHARD, 4 years; C. M. WOODWARD, 5 years.

Member of General Committee.

MANSFIELD MERRIMAN, New York, N. Y.

ADDRESSES AND PAPERS PRESENTED.

For full report of secretary of Section D, see *Science*, N. S. Vol. xxxi, No. 793, March 11, 1910, pp. 396-397.

The Profession of Engineering and its Relation to the American Association for the Advancement of Science.

Address by GEORGE F. SWAIN, Harvard University, Vice-President and Chairman of Section D for 1908.

Science, N. S. Vol. xxxi, No. 786, January 21, 1910, pp. 81-93.

Some Notes on the Cutting of Music Rolls and on a New Machine for Making Master or Pattern Rolls.

J. F. KELLY, Pittsfield, Mass. (Presented by Walter Reed.)

Electrical World, Vol. lv, No. 3, January 20, 1910, pp. 161-162.

A Pitot Tube Steam Meter.

E. H. LOCKWOOD, New Haven, Conn.

Production Engineering.

A. A. HAMERSCHLAG, Pittsburg, Pa. (Presented by the secretary.)

Electrical World, March 3, 1910, p. 509.

Recent Improvements in Ore Concentration Machinery.

R. H. RICHARDS, Boston, Mass.

Transactions, American Institute of Mining Engineers, 1910.

A Parallel Rule. (Read by title.)

H. E. WETHERILL, Philadelphia, Pa.

Journal, Franklin Institute, September, 1908. (Improved.)

The Photographic Lens as an Engineering Instrument. (Read by title.)

E. H. BERRY, East Orange, N. J.

The Changes of the Wind with Altitude.

A. J. HENRY, Mount Weather, Va. (Presented by W. J. Humphreys.)

Bulletin, Mount Weather Observatory, Vol. ii, Part 6, December, 1909.

Wind Pressure and Velocity.

S. P. FERGUSON, Hyde Park, Mass.

The Relation of Wind to Aeronautics.

A. LAWRENCE ROTCH, Hyde Park, Mass.

Aircraft (New York), March, 1910.

Turbulent Surface Winds.

W. J. HUMPHREYS, Washington, D. C.

Bulletin, Mount Weather Observatory, 1910.

Aerodynamics.

A. M. HERRING, New York, N. Y.

Vertical Air Currents and their Office in Supporting a Moving Aerofoil.

F. W. VERY, Westwood, Mass.

The Center of Pressure on Arched Surfaces. (Read by title.)

M. B. SELLERS, Baltimore, Md.

Aeronautics (New York), March, 1910.

Interference of Aeroplane Surfaces due to Grouping. (Read by title.)

M. B. SELLERS, Baltimore, Md.

Aeronautics (New York), February, 1910.

Vagaries of Air Currents. (Read by title.)

A. T. ATHERHOLT, Philadelphia, Pa.

The Pneumodynamic and the Thermodynamic Function. (Read by title.)

J. E. SIEBEL, Chicago, Ill.

Original Communications, Zymotechnic Institute,
Chicago, Vol. iv, No. 2, February, 1910.

General Design for an Aerial Machine of High Speed and Efficiency.
(Read by title.)

DAVID TODD, Amherst, Mass.

Some Applications of the Laws of Aerial Viscosity to Problems of
Aviation. (Read by title.)

F. W. VERY, Westwood, Mass.

The Development of the Modern Textile Mill.

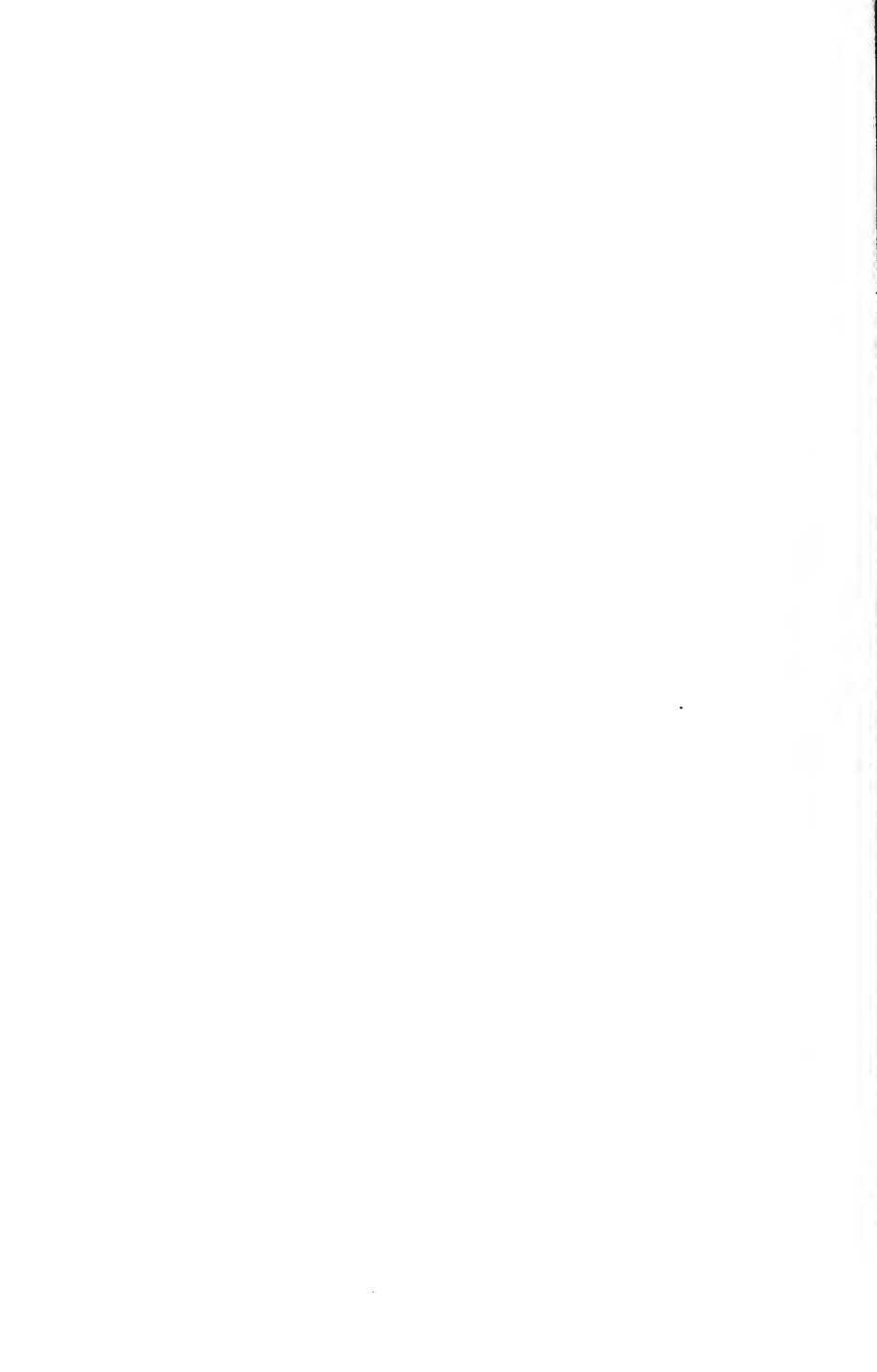
C. J. H. WOODBURY, Boston, Mass.

Journal of Commerce and Commercial Bulletin (New
York), January 3, 1910.

American Wool and Cotton Reporter (Boston), Janu-
ary 6, 1910

The Present Status of Aerial Navigation.

OCTAVE CHANUTE, Chicago, Ill.



SECTION E.

Geology and Geography.

OFFICERS OF SECTION E.

Vice-President and Chairman of the Section.

R. W. BROCK, Ottawa.

Secretary.

F. P. GULLIVER, Norwich, Conn.

Member of Council.

W. M. H. HOBBS, Ann Arbor, Mich.

Sectional Committee.

BAILEY WILLIS, Vice-President, 1908; R. W. BROCK, Vice-President, 1909; F. P. GULLIVER, Secretary.

H. L. FAIRCHILD, 1 year; E. H. BARBOUR, 2 years; J. B. WOODWORTH, 3 years; F. B. TAYLOR, 4 years; G. K. GILBERT, 5 years.

Member of General Committee.

H. L. FAIRCHILD, Rochester, N. Y.

ADDRESSES AND PAPERS PRESENTED.

For full report of Secretary of Section E, see *Science*, N. S. Vol. cxii, No. 812, July 22, 1910, pp. 124-128.

Principles of Paleogeography.

Address by BAILEY WILLIS, Washington, D. C., Vice-President and Chairman of Section E for 1908.

Science, N. S. Vol. xxxi, No. 790, February 18, 1910, pp. 241-260.

Some Physical Features in China. (Read by title.)

CHARLES K. EDMUNDS, Baltimore, Md.

National Geographic Magazine, 1910.

Structure, Origin, and Stratigraphic Significance of the Shawangunk Grit.

PAUL BILLINGSLEY, Columbia University, New York, N. Y.

Microseisms.

OTTO KLOTZ, Ottawa, Canada.

Science, N. S. Vol. xxxii, No. 816, August 19, 1910, pp. 252-254.

High Terraces and Abandoned Valleys of Western Pennsylvania. (Read by title.)

E. WESLEY SHAW, Washington, D. C.

Journal of Geology, 1910.

Lacustrine and Post-glacial Features of the Connecticut Valley, near Hanover, N. H.

J. W. GOLDTHWAIT, Dartmouth College, Hanover, N. H.

The Shore-lines of the Glacial Lakes in the Vermillion Quadrangle, Ohio. (Read by title.)

FRANK CARNEY, Granville, Ohio.

Bulletin, Scientific Laboratories of Denison University,
Vol. xvi, No. 1.

Quantitative Measure of Maximum Arid Deflation. (Read by title.)

CHARLES R. KEYES, Des Moines, Iowa.

Destruction of the Drumline in Boston Harbor. (Read by title.)

GEORGE CARROLL CURTIS, Boston, Mass.

The Coral Island Bora-Bora, and the Model as Illustration of the Principles of Naturalistic Earth Relief.

GEORGE CARROLL CURTIS, Boston, Mass.

The Geographic and Geologic Character of the "Sabana" about Caicara, Venezuela.

T. A. BENDRAT, Turners Falls, Mass.

Report of the Third Meeting of the Permanent Commission of the International Seismological Association, held at Zermatt, Switzerland, August 30-September 3, 1909. (Read by title.)

OTTO KLOTZ, (Delegate for Canada), Ottawa, Canada.

The Glacial Recession in Western New England.

F. B. TAYLOR, Fort Wayne, Indiana.

SECTION F.



ZOOLOGY.

OFFICERS OF SECTION F.

Vice-President and Chairman of the Section.

WILLIAM E. RITTER, San Diego, Cal.

Secretary.

MAURICE A. BIGELOW, New York, N. Y.

Member of Council.

C. H. EIGENMANN, Bloomington, Ind.

Sectional Committee.

C. J. HERRICK, Vice-President, 1908; W. E. RITTER, Vice-President
1909; M. A. BIGELOW, Secretary.

W. E. RITTER, 1 year; A. W. BLEILE, 2 years; A. L. TREADWELL,
years; C. C. NUTTING, 4 years; EDWIN LINTON, 5 years.

Member of General Committee.

WILLIAM E. RITTER, San Diego, Cal.

ADDRESSES AND PAPERS PRESENTED.

For full report of secretary of Section F, see *Science*, N. S. Vol. xxxi, No. 790, February 18, 1910, p. 277.

The Evolution of Intelligence and its Organs.

Address by C. JUDSON HERRICK, University of Chicago, Vice-President and Chairman of Section F for 1908.

Science, N. S. Vol. xxxi, No. 784, January 7, 1910, pp. 7-18.

A Plea for Popular Zoology.

WILLIAM E. RITTER, Marine Biological Station, San Diego, Cal.

The Nest-building Habits of some American Fishes.

JACOB REIGHARD, University of Michigan.

The Study of Natural History at the Tortugas Laboratory.

ALFRED G. MAYER, Marine Laboratory, Tortugas.

The Popular Science Monthly, Vol 77, April, 1910.

Illustrations of the Life and Instincts of Wild Birds.

FRANCIS H. HERRICK, Adelbert College.

The Popular Science Monthly

The House Fly as a Carrier of Disease.

DANIEL D. JACKSON.

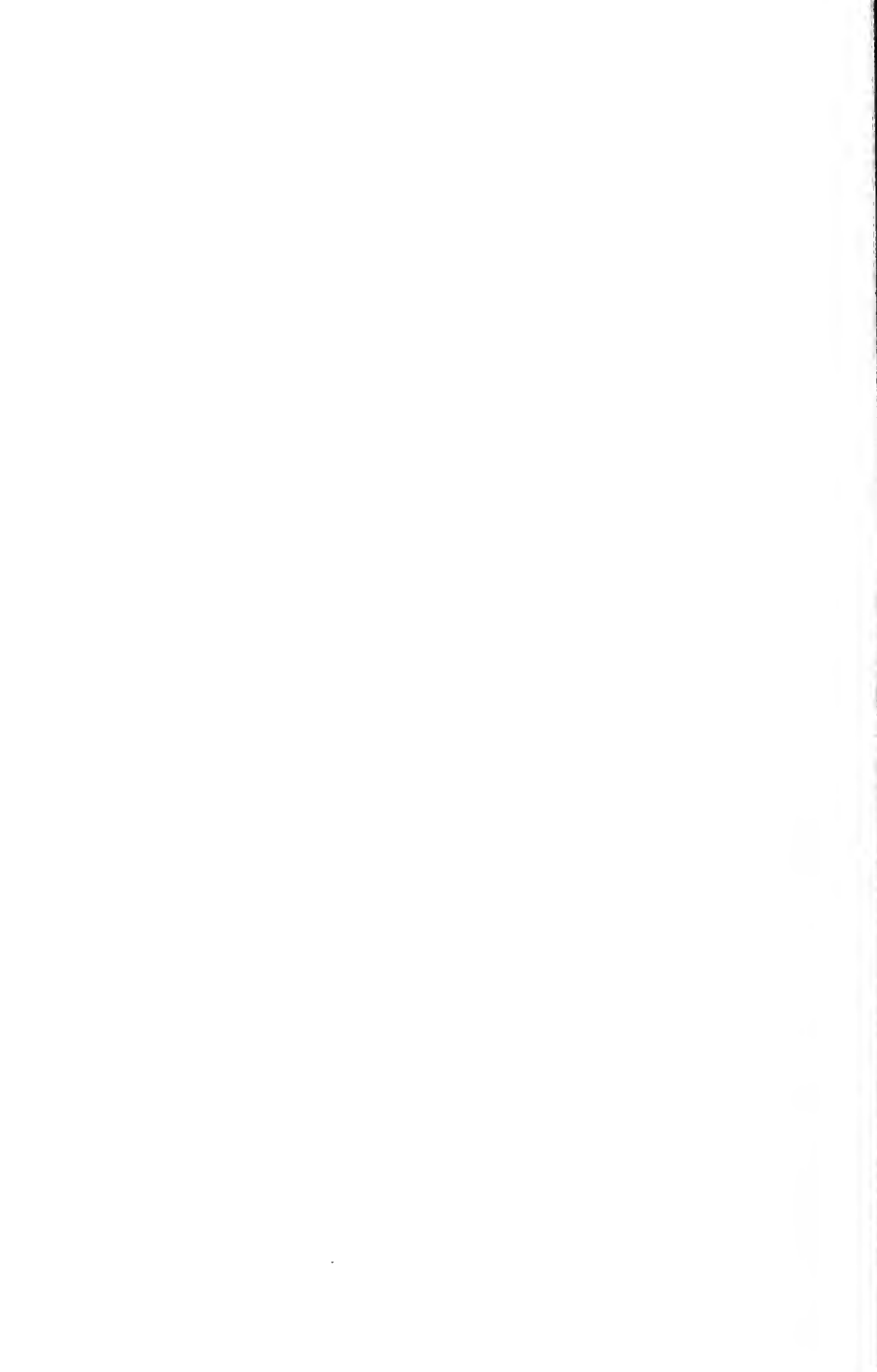
Conservation of our Fisheries.

DAVID STARR JORDAN, Leland Stanford Junior University.

Recent Progress in the Study of Heredity.

WILLIAM E. CASTLE, Harvard University.

The Popular Science Monthly.



SECTION G.

— —
BOTANY.

OFFICERS OF SECTION G.

Vice-President and Chairman of the Section

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Secretary.

HENRY C. COWLES, Chicago, Ill.

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JOSEPH N. ROSE, Washington, D. C.

Sectional Committee.

H. M. RICHARDS, Vice-President, 1908; D. P. PENHALLOW, Vice-President, 1909; H. C. COWLES, Secretary.

W. J. BEAL, 1 year; C. R. BARNES,* 2 years; WILLIAM TRELEASE, 3 years; R. A. HARPER, 4 years; D. T. MACDOUGAL, 5 years.

Member of General Committee.

AVEN NELSON, Laramie, Wyo.

ADDRESSES AND PAPERS PRESENTED.

For full report of secretary of Section G, see *Science*, N. S. Vol. xxxi, No. 799, April 22, 1910, pp. 632-640.

On the Nature of Response to Chemical Stimulation.

Address by HERBERT M. RICHARDS, Columbia University, Vice-President and Chairman of Section G for 1908.

Science, N. S. Vol. xxxi, No. 785, January 14, 1910, pp. 52-62.

SYMPOSIUM ON BOTANICAL GARDENS.

The Administration of Botanical Gardens.

WILLIAM TRELEASE.

Science N. S. Vol. xxxi, No. 801, May 6, 1910, pp. 681-685.

The Relations of Botanical Gardens to the Public. (Illustrated.)

N. L. BRITTON.

Science, N. S. Vol. xxxi, No. 800, April 29, 1910, pp. 641-644.

The Place of Botanical Gardens in Collegiate Instruction.

W. F. GANONG.

Science, N. S. Vol. xxxi, No. 800, April 29, 1910, pp. 644-648.

A University Botanical Garden.

D. S. JOHNSON.

Science, N. S. Vol. xxxi, No. 800, April 29, 1910, pp. 648-655.

The Botanic Garden as a Field Museum of Agriculture.

A. F. BLAKESLEE.

Science N. S. Vol. xxxi, No. 801, May 6, 1910,
pp. 685-688.

Further Observations on the Nature of the Fertile Spike in Ophioglossaceæ.

M. A. CHRYSLER.

Annals of Botany, Vol. xxiv, January, 1910.

Change of Sex in *Humulus Lupulus* not due to Traumatism.

W. W. STOCKBERGER.

The Taxonomic Value of the Cephalodia in Certain Species of *Stereocaulon*.

LINCOLN W. RIDDLE.

Cell and Nuclear Division in *Closterium*.

B. F. LUTMAN.

Proceedings, Wisconsin Academy of Letters and Science, 1910.

Corallorhiza and Mycosymbiosis.

BENJAMIN C. GRUENBERG.

The Origin of the Primary Bulb in *Erythronium*.

FREDERICK H. BLODGETT.

Botanical Gazette, 1910.

Some New Hybrids and their Bearing on the Classification of Wheat.

BURT C. BUFFUM.

The Closing Response of *Dionæa muscipula* Ellis.

W. H. BROWN and L. W. SHARP.

Effects of Acidity of Culture Media upon Morphology in Species of *Penicillium*.

CHARLES THOM.

Bulletin, U. S. Department of Agriculture.

Effect of Various Gases and Vapors upon Etiolated Seedlings of the Sweet Pea.

LEE I. KNIGHT, R. CATLIN ROSE and WILLIAM CROCKER.

A New Method of Detecting Traces of Illuminating Gas.

LEE I. KNIGHT, R. CATLIN ROSE and WILLIAM CROCKER.

The Stele of *Osmunda cinnamomea*.

J. H. FAULL.

Transactions, Canadian Institute (Toronto), 1910.

The Ontogeny of *Helvella elastica*.

W. A. McCUBBIN.

An Unusual Walnut.

IRA D. CARDIFF.

Studies upon Oxidases.

H. HASSELBRING and C. L. ALSBERG.

Some Teratological Features of the Coniferæ.

ROBERT BOYD THOMSON.

On the Distribution and Origin of Ray Tracheids in *Pinus Strobus* and *P. resinosa*.

W. P. THOMPSON.

On the Organization and Reconstruction of the Somatic Nuclei in
Podophyllum peltatum. (Read by title.)

J. B. OVERTON.

Archiv für Zellforschung, 1910.

Cleistogamy in the Genus *Muhlenbergia*. (Read by title.)

MRS. AGNES CHASE.

The Chart Method in Taxonomy. (Read by title.)

FREDERIC E. CLEMENTS.

Minnesota Botanical Studies.

Evaporation in its Relation to the Prairie at Lake Okoboji, Iowa.
(Read by title.)

B. SHIMEK.

Alpine Plants and Evaporation. (Read by title.)

CHARLES H. SHAW.*

JOINT SESSION, SECTION G AND THE AMERICAN
PHYTOPATHOLOGICAL SOCIETY.

A Spinach Disease caused by *Heterosporium variabile*.

HOWARD S. REED.

A New Species of *Endomyces*.

CHARLES E. LEWIS.

Bulletin, Maine Experiment Station, 1910.

Three Species of the Type of *Aecidium cornutum* Pers.

FRANK D. KERN.

Present Status of the Cotton Anthracnose Investigation at the South
Carolina Experiment Station.

H. W. BARRE.

22nd Annual Report, S. C. Experiment Station.

A Nectria Fruiting upon the Earth.

J. B. POLLOCK.

A Barley Disease.

L. H. PAMMEL, CHARLOTTE M. KING and A. I. BAKKE.

Notes on Some Diseases of Coniferous Nursery Stock.

CARL HARTLEY.

Fomes annosus and Two Species of Gymnosporangium on Juniperus
virginiana.

CARL HARTLEY.

Origin of Heteroecism in the Rusts.

EDGAR W. OLIVE.



SECTION H.

Anthropology and Psychology.

OFFICERS OF SECTION H.

Vice-President and Chairman of the Section.

WILLIAM H. HOLMES, Washington, D. C.

Secretary.

GEORGE GRANT MACCURDY, New Haven, Conn.

Member of Council.

B. T. B. HYDE, New York, N. Y.

Sectional Committee.

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ALÈS HRDLICKA, 1 year; FRANZ BOAS, 2 years; WILLIAM H. HOLMES 3 years; R. B. DIXON, 4 years; GEORGE A. DORSEY, 5 years.

Member of General Committee.

GEORGE GRANT MACCURDY, New Haven, Conn.

Officers of the American Anthropological Association.

WILLIAM H. HOLMES, Washington, D. C., *President.*
GEORGE GRANT MACCURDY, Yale University, *Secretary.*
B. T. B. HYDE, New York City, *Treasurer.*
F. W. HODGE, Washington, D. C., *Editor.*

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Until 1912: H. I. SMITH, G. H. PEPPER, W. C. FARABEE, J. R. SWANTON, G. G. HEYE, M. H. SAVILLE.
Until 1911: E. L. HEWETT, J. N. B. HEWITT, W. HOUGH, A. HRDLICKA, A. L. KROEBER, A. M. TOZZER.
Until 1910: C. P. BOWDITCH, A. F. CHAMBERLAIN, S. CULIN, R. B. DIXON, J. WALTER FEWKES, G. B. GORDON.
Until 1909: F. BAKER, L. FARRAND, B. LAUFER, J. D. MCGUIRE, J. MOONEY, C. PEABODY.

Officers of the American Folk-Lore Society.

JOHN R. SWANTON, Washington, *President.*
ROLAND B. DIXON, Cambridge, *Secretary.*

ADDRESSES AND PAPERS PRESENTED.

For full report of secretary of Section H, see *Science*, N. S. Vol. xxxi, No. 792, March 4, 1910, pp. 350-354.

Racial Differences in Mental Traits.

Address by R. S. WOODWORTH, Columbia University, Vice-President and Chairman of Section H for 1908.

Science, N. S. Vol. xxxi, No. 788, February 4, 1910, pp. 171-186.

JOINT MEETING, SECTION H, A. A. A. S., AMERICAN ANTHROPOLOGICAL ASSOCIATION AND AMERICAN FOLK-LORE SOCIETY.

Some Practical Aspects of the Study of Myths.

JOHN R. SWANTON.

Folk-Lore Journal.

Some Fundamental Characteristics of the Ute Language.

EDWARD SAPIR.

On a Remarkable Birch-bark Fragment found in Iowa.

WARREN K. MOOREHEAD.

The Condition of the Ojibway of Northern Minnesota.

WARREN K. MOOREHEAD.

The Chronic Ill Health of Darwin.

ROBERT HESSLER.

Anthropology in the Peale Museum.

GEORGE H. PEPPER.

Calf Mountain Mound in Manitoba.

HENRY MONTGOMERY.

American Anthropologist, March, 1910.

Huron Moose Hair Embroidery.

F. G. SPECK.

Assiniboine Folk-lore.

ROBERT H. LOWIE.

Journal of American Folk-Lore, December, 1909.

What is Totemism?

A. A. GOLDENWEISER.

The Myth of Seven Heads.

ALEXANDER F. CHAMBERLAIN. (Read by Charles Peabody.)

Some Problems of the American Race.

WILLIAM H. HOLMES.

American Anthropologist, 1910.

The Characteristics and Material Culture of the Cayapa Indians.

S. A. BARRETT.

Contributions to South American Archeology, Vol. iv.

The Cayapa Spirit World.

S. A. BARRETT.

Contributions to South American Archeology, Vol. iv.

The Alligator Motive and Figures with Mixed Attributes in the Ancient Art of Chiriqui.

GEORGE GRANT MACCURDY.

Anthropological Publications, University of Pennsylvania, Vol. iv, No. I.

Native American Ballads.

PHILLIPS BARRY.

A Possible Explanation of Conventionalized Art.

H. J. SPINDEN.

Rock Inscriptions. (Read by title.)

STEPHEN D. PEET.

Stages of Progress in Parallels of Latitude. (Read by title.)

STEPHEN D. PEET.

The Incensario. (Read by title.)

WALTER HOUGH.

Proceedings, U. S. National Museum.

The Distribution of Gray Pottery in the Pueblo Region. (Read by title.)

WALTER HOUGH.

Report of Explorations of 1905, U. S. National
Museum.

Symbolism in a Japanese Marriage. (Read by title.)

SARAH S. JAMES.

Distribution of South American Linguistic Stocks. (Map.) (Read by title.)

A. F. CHAMBERLAIN.

An Introductory Paper on the Tewa Language. (Read by title.)

JOHN P. HARRINGTON.

Literary Form in Oral Tradition. (Read by title.)

FRANZ BOAS.

Folk Songs and Music of Cataluña. (Read by title.)

A. T. SINCLAIR.

Journal of American Folk-Lore, April-July, 1910.

A Grammatical Sketch of the Coos Language of Northwestern Oregon.

(Read by title.)

LEO J. FRACHTENBERG.

SECTION I.

Social and Economic Science.

OFFICERS OF SECTION I.

Vice-President and Chairman of the Section.

BYRON W. HOLT, New York, N. Y.

Acting Secretary.

JOHN FRANKLIN CROWELL, New York, N. Y.
(In absence of J. PEASE NORTON.)

Member of Council.

JOHN FRANKLIN CROWELL, New York, N. Y.

Sectional Committee.

WILLIAM G. SUMNER,* Vice-President, 1908; BYRON W. HOLT, Vice-President, 1909; FRED. C. CROXTON, Secretary.

SEYMOUR C. LOOMIS, 1 year; W. R. LAZENBY, 2 years; CHARLES A. CONANT, 3 years; IRVING FISHER, 4 years; JOHN B. CLARK, 5 years.

Member of General Committee.

WILLIAM R. LAZENBY, Columbus, Ohio.

ADDRESSES AND PAPERS PRESENTED.

For full report of secretary of Section I, see *Science*, N. S. Vol. xxxi, No. 805, June 3, 1910, pp. 879-880.

The Gold Question.

Address by BYRON W. HOLT, New York, Vice-President and Chairman of Section I for 1909.

Moody's Magazine, January, 1910.

GENERAL SESSION.

Some Consequences of Advancing Prices.

JOHN FRANKLIN CROWELL, Associate Editor, *The Wall Street Journal*, New York, N. Y.

Moody's Magazine, February, 1910.

SOCIOLOGICAL SESSION.

Present Status of the Divorce Question in the United States.

REV. SAMUEL W. DIKE, Secretary, Nat'l League for the Protection of the Family, Auburndale, Mass.

Annual Report, National League for the Protection of the Family, Auburndale, Mass.

Work of the United States Immigration Commission.

FRED. C. CROXTON, Statistician, U. S. Immigration Commission, Washington, D. C.

The Public Bath System of New York City.

WM. H. HALE, Supt. of Public Baths, Brooklyn, N. Y.

ECONOMIC AND STATISTICAL SESSION.

Results of Investigations of the Boston Finance Commission.

HARRISON P. EDDY, of Metcalf & Eddy, Consulting Engineer,
Boston, Mass.

Need for Scientific Methods of Assessment in Taxation.

A. C. PLEYDELL, Secretary, N. Y. Tax Reform Association

Twenty Years Under the Sherman Anti-Trust Law.

H. T. NEWCOMB, of Newcomb, Churchill & Troy, Wash-
ton, D. C.

Phases of Economic Progress of the U. S. in the Past Decade.

ALBERT CLARKE, Secretary, The Home Market Club, Bos-
ton, Mass.

The Protectionist, Boston, February,

FINAL SESSION.

The Tariff Board—Its Scope and Limitations.

SEYMOUR C. LOOMIS, New Haven, Conn.

Work of the Economic Clubs.

J. W. BEATSON, Secretary, The Economic Club of Boston

Scientific Aspects of the Race Question in the United States.
(Read by title.)

E. L. BLACKSHEAR, Principal, State Normal and Industrial
College, Prairie View, Texas.

Introduced Timber Trees of Ohio and What they Promise in
Cultivation.

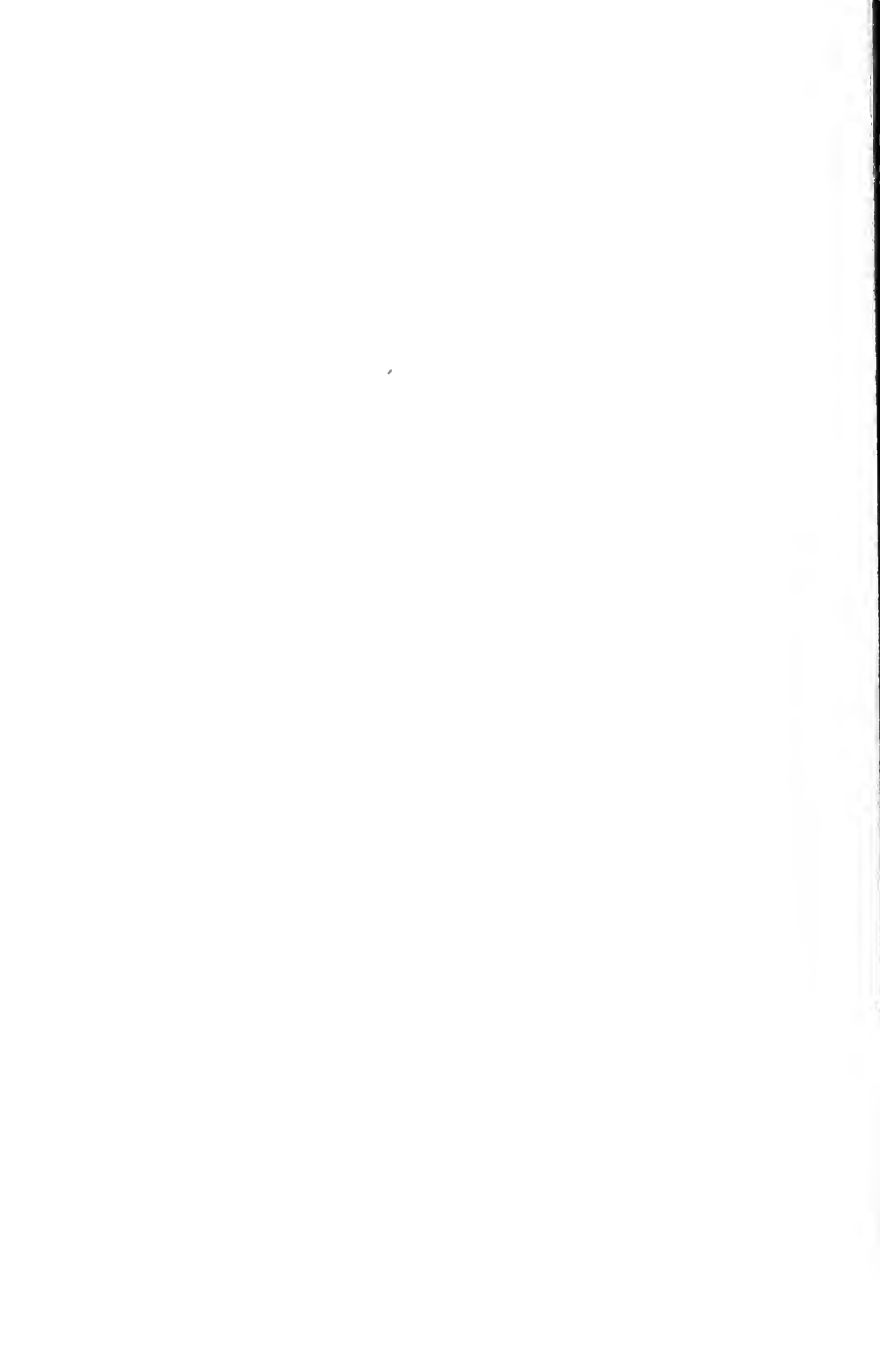
WM. R. LAZENBY, Ohio State University, Columbus, Ohio.
Proceedings, Ohio State Forestry Society, 1909.

Physical Economics.

ERASTUS EUGENE HOLT, Portland, Maine.

European Immigration. (Read by title.)

ALBERTO PECORINI.



SECTION K.

Physiology and Experimental
Medicine.

OFFICERS OF SECTION K.

Vice-President and Chairman of the Section.

CHARLES S. MINOT, Boston, Mass.

Secretary.

GEORGE T. KEMP, Champaign, Ill.

Member of Council.

W. G. MACCALLUM, New York, N. Y.

Sectional Committee.

WILLIAM H. HOWELL, Vice-President, 1908; CHARLES S. MINOT, V
President, 1909; GEORGE T. KEMP, Secretary.

FREDERICK G. NOVY, 1 year; GRAHAM LUSK, 2 years; JACQUES L
3 years; ELIAS P. LYON, 4 years; WILLIAM J. GIES, 5 years.

Member of General Committee.

WILLIAM W. FORD, Baltimore, Md.

ADDRESSES AND PAPERS PRESENTED.

For full report of secretary of Section K, see *Science*, N. S. Vol. xxxi, No. 790, February 19, 1910, pp. 276-277.

Chemical Regulation of the Processes of the Body by Means of Activators, Kinases and Hormones.

Address by WILLIAM H. HOWELL, Johns Hopkins University, Vice-President and Chairman of Section K for 1908.

Science, N. S. Vol. xxxi, No. 786, January 21, 1910, pp. 93-100.

SYMPOSIUM ON INTERNAL SECRETION.

A General Review of the Chemical Aspect of Internal Secretion.

R. H. CHITTENDEN.

Journal, American Medical Association.

The Comparative Physiology of the Adrenal Bodies.

SWALE VINCENT.*

Journal, American Medical Association.

The Internal Secretion of the Pancreas.

W. G. MACCALLUM.

Journal, American Medical Association.

Our Present Knowledge of Thyroid Function.

S. P. BEEBE.

Journal, American Medical Association.

* Professor Swale Vincent was unable to attend the meeting.

Metabolism after Parathyroidectomy.

J. V. COOKE.

Journal, American Medical Association.

Physiological Consequences of Total and of Partial Hypophysectomy.

HARVEY CUSHING.

Journal, American Medical Association.

SECTION L.

EDUCATION.

OFFICERS OF SECTION I.

Vice-President and Chairman of the Section.

JAMES E. RUSSELL, New York, N. Y.

Secretary.

CHARLES R. MANN, Chicago, Ill.

Member of Council.

C. S. HOWE, Cleveland, Ohio.

Sectional Committee.

JOHN DEWEY, Vice-President, 1908; JAMES E. RUSSELL, Vice-President, 1909; C. R. MANN, Secretary.

T. M. BALLIET, 1 year; E. L. THORNDIKE, 2 years; C. M. WOODWARD, 3 years; C. H. JUDD, 4 years; E. E. BROWN, 5 years.

Member of General Committee.

CHARLES H. JUDD, Chicago, Ill.

ADDRESSES AND PAPERS PRESENTED.

For full report of secretary of Section L, see *Science*, N. S. Vol. xxxi, No. 798, April 15, 1910, pp. 591-597.

Science as Subject-matter and as Method.

Address by JOHN DEWEY, Columbia University, Vice-President and Chairman of Section L for 1908.

Science, N. S. Vol. xxxi, No. 787, January 28, 1910, pp. 121-127.

GENERAL SESSION.

Topic: Formulated Scientific Problems in General Education.

Units and Scales for Educational Measurement.

EDWARD L. THORNDIKE, Teachers College, Columbia University.
Teachers College Record, March, 1910.

Application of the Experimental Method to Problems in Education.

CHARLES H. JUDD, University of Chicago.

The Psychology of Social Consciousness implied in Instruction.

GEORGE H. MEAD, University of Chicago.

Science, N. S. Vol. xxxi, No. 801, May 6, 1910, pp. 688-693.

Problems in the Psychology of Reading.

WALTER F. DEARBORN, University of Chicago.

The Qualities of Merit in Teachers.

W. C. RÜEDIGER, George Washington University, Washington, D. C.

Journal of Educational Psychology, Vol. I.

Topic: Scientific Studies of the American College.

The Geographical Location and Sphere of Influence of Colleges in the United States.

E. C. SAGE, Assistant Secretary, General Education Board, New York, N. Y.

Some Data concerning the Student Body in American Colleges.

GEORGE D. STRAYER, Teachers College, Columbia University, Bulletin, U. S. Bureau of Education, 1910.

The Work of the Higher Education Association.

CLARENCE F. BIRDSEYE, Editor, *The American College*, New York, N. Y.

Science, N. S. Vol. xxxi, No. 802, May 13, 1910, pp. 721-728.

The Group as a Stimulus to Mental Activity.

WILLIAM H. BURNHAM, Clark University.

Science, N. S. Vol. xxxi, No. 803, May 20, 1910, pp. 761-767.

Problems in Grammatical Terminology.

WILLIAM G. HALE, University of Chicago.

Science, 1910.

Report of the Committee on the Distribution of Students in College Courses.

EDWARD L. THORNDIKE, Chairman, Teachers College, Columbia University.

Science, N. S. Vol. xxxi, No. 794, March 18, 1910, pp. 428-431.

JOINT SESSION, SECTION I, A. A. A. S., WITH THE AMERICAN FEDERATION OF TEACHERS OF THE MATHEMATICAL AND THE NATURAL SCIENCES.

Report of the Committee on Bibliography.
 Report of the Committee on College Entrance.
 Report of the Committee on Syllabus in Geometry.

Informal reports from committees of the International Commission on the Teaching of Mathematics. Messrs. G. W. EVANS, C. N. HASKINS, D. SNEDDEN, W. E. STARK, A. H. WHEELER.

Report of the Committee on Publications. Addresses by Professor C. H. JUDD and Mr. H. R. LINVILLE.

JOINT SESSION, SECTION L, A. A. A. S., WITH THE SOCIAL EDUCATION CLUB.

The Causes and Remedies of Retardation.
 LIGHTNER WITMER, University of Pennsylvania.

The Problem of the Backward Child.
 LEONARD P. AYRES, Russell Sage Foundation, New York, N. Y.

Individual Opportunity and Social Organization in College Courses in Education.
 MISS ELIZA K. ADAMS, Smith College.

Individual Opportunity in the Class Room.
 HENRY W. HOLMES, Harvard University.

JOINT SESSION, SECTIONS B AND L.

The Relation of Colleges to Secondary Schools with respect to
Physics.

E. H. HALL, Harvard University.

What Specialization has done for Physics Teaching.

JOHN F. WOODHULL, Teachers College, Columbia University.

Science, N. S. Vol. xxxi, No. 802, May 13, 1910,
pp. 729-731.

The Quantitative Teaching of Kinetics in Secondary Schools.

N. H. BLACK, Roxbury Latin School, Boston.

The Place of "g" in High School Teaching, and other topics.

A. G. WEBSTER, Clark University.

College Attitude toward Preparatory Work.

CHARLES RIBORG MANN, University of Chicago.

EXECUTIVE PROCEEDINGS.



EXECUTIVE PROCEEDINGS.

REPORT OF GENERAL SECRETARY.

The sixty-first meeting of the American Association for the Advancement of Science was held in Boston, during convocation week, 1909-10. The first general session was called to order in Huntington Hall at ten o'clock on the morning of Monday, December 27, 1909, by the retiring president, Professor T. C. Chamberlin, who introduced the president of the meeting, President David Starr Jordan. Addresses of welcome were made, on behalf of Massachusetts Institute of Technology by President Richard C. Maclaurin and on behalf of Harvard University by Dean Wallace C. Sabine. President Jordan replied briefly on behalf of the American Association. Announcements were made by the permanent secretary, the general secretary and the local secretary, after which the general session adjourned.

The various sections and the affiliated societies met in their respective halls, according to the published program, the Massachusetts Institute of Technology and Harvard University having placed their lecture halls and laboratories freely at the disposal of the Association.

The address of the retiring president of the Association, Professor T. C. Chamberlin, was given in Sanders Theater of Harvard University, on the evening of Monday, December 27, the subject being, "A Geologic Forecast of the Future Opportunities of our Race." (This address appears in full in *Science*, N. S. Vol. xxx, No. 783, December 31, 1909, pp. 937-949.) Preceding the above was an address of welcome to Harvard University by Professor F. W. Putnam, as follows:

"Members of the American Association for the Advancement of Science and Affiliated Societies:

"It is a pleasure to stand here, as I did eleven years ago, and welcome you to Cambridge, and, in behalf of the corporation, the president and the faculties of the University, to welcome you to Harvard University.

"It is with regret that I have to announce that you are not to have the pleasure of listening to the address which, owing to the enforced absence of President Lowell was to have been given by Professor James. Unfortunately the state of his health does not permit him to be with us this evening, much to his and our disappointment.

"Harvard University has always taken an active part in the meetings of the Association held here in Cambridge and Boston. The Boston meetings of 1880 and 1898 have been remembered by the older members of the Association for the warm and cordial greetings received in both cities.

"I can assure you that although you are to be deprived of the formal greeting by Professor James, your welcome is none the less a most cordial one from all the authorities of the University.

"It may be well to pass on to the younger members of the Association the fact that the American Association for the Advancement of Science was conceived in Boston in 1847 and born in Philadelphia in 1848. This was the outcome of the older association of Geologists and Naturalists which was organized in 1840 by eighteen geologists and naturalists meeting in Philadelphia under the chairmanship of Professor Edward Hitchcock. In 1847 a meeting of this early association was held in Boston under the chairmanship of Professor William B. Rogers, and it was then decided to reorganize under the present name of the American Association for the Advancement of Science.

"The first meeting of the new association was held in Philadelphia in 1848. The second was held in Cambridge in 1849.

"In 1880 a meeting was held in Boston. At that time we were cordially welcomed to Harvard for a Cambridge Day. The meeting of 1898 was held in Boston and again we were given a warm welcome by the University. Now we are here again, and not only does the University welcome us here and give us the use of its halls and facilities, but it also welcomes us to its Medical School in Boston, where its buildings are placed at our service.

"The last time I had the pleasure of addressing you in this hall was in 1898, on the occasion of the fiftieth anniversary meeting, when, after serving the Association for a quarter of a century as its permanent secretary, I was honored with the presidency. My last printed circular, as permanent secretary, has the following paragraph, which I venture to quote as being applicable now as then:

"During all this time I have held the firm belief that the mental stimulus and broadening influence, afforded by such annual gatherings of persons interested in the various departments of science, are of vital importance to every professional scientist. Such reunions not only promote good fellowship among scientists and lovers of science, but also serve to prevent the specialist from becoming so exclusively absorbed in his own particular life work as to forget that it is his duty to unite with his fellow workers in securing results which make a scientific career worthy of special respect—the advancement and diffusion of knowledge and the amelioration of mankind."

Following the address of the retiring president, a reception was given by the corporation of Harvard University to the members of the Association and the affiliated societies and their accompanying ladies, in Memorial Hall.

The registered attendance of members of the Association was 1,140, the largest in the history of the Association. The registration by sections was as follows: A, 106; B, 124; C, 200; D, 36; E, 166; F, 218; G, 132; H, 92; I, 12; K, 50; L, 104. The registration of members of affiliated societies at the Association headquarters was only 166. This conveys no meaning with regard to the attendance of affiliated members, as one instance will show; the registration at the headquarters of the American Chemical Society was 558, while only 200 registered as belonging to Section C of the Association. No doubt the attendance of other affiliated members was large, and no registration was secured. It seems, therefore, that the attendance of scientific men may have exceeded 2,000.

GENERAL EVENTS.

On Tuesday evening, December 28, a public lecture, complimentary to the citizens of Boston, was given by Dr. C. W. Stiles, on "The Hookworm Problem in this Country in Reference to Public Health."

On Thursday evening, December 30, under the auspices of the Entomological Society of America, a lecture was given by Dr. John B. Smith on "Insects and Entomologists: Their Relation to the Community at Large."

A reception by the president and corporation of Massachusetts Institute of Technology to the members of the Association and affiliated societies and their accompanying ladies was given on the afternoon of Wednesday, December 29.

A reception by President and Mrs. MacLaurin was given to the visiting physicists and their ladies, at their home on the afternoon of Thursday, December 30.

On the afternoon of Friday, December 31, a lecture was given by Dr. Percival Lowell on "The Canali Novæ of Mars."

The business meeting and banquet of the Society of the Sigma Xi were held on the afternoon and evening of Wednesday, December 29.

There were many dinners arranged for groups of members, such as mathematicians and astronomers, physicists, chemists, geologists, zoologists and entomologists, anatomists and physiologists; there were many less formal but very pleasant "smokers" and other gatherings at various hotels and clubhouses.

ITEMS OF GENERAL INTEREST FROM THE PROCEEDINGS OF THE COUNCIL.

The council met at nine o'clock in the morning, on Monday, Tuesday, Wednesday, Thursday and Friday, December 27 to 31.

At these meetings 57 new members were elected. A much larger number had been elected quite recently, and should be considered as being elected at the Boston meeting. The membership is now more than 8,000.

The council elected 229 fellows from those proposed by the various sections.

The following were elected foreign associates for the Boston meeting: Dr. Hans Hallier, of Leyden; Mr. J. J. Taudin-Chabot, of Holland; Professor Franz Weidenreich, of Strassburg; Professor C. Runge, of Göttingen.

The council was authorized to elect to membership scientific men of Central and South America.

The resignation of Mr. R. S. Woodward as chairman of the committee on policy was accepted, and Professor E. L. Nichols was elected to fill the vacancy in the committee on policy.

The resignation of Mr. R. S. Woodward from the committee on organization and membership was accepted, and Dr. W. H. Welch was appointed to the committee as chairman.

It was decided that at this Boston meeting the program be given to members of the Association only at the time of registration, and that persons not members be charged 25 cents for each copy.

It was resolved that the inquiry regarding the cost of publication, distribution and use of publications of American scientific societies should be extended.

Grants of \$75 each were made to the Concilium Bibliographicum Zoologicum, Dr. W. D. Hoyt, Professor G. J. Peirce and Professor T. D. A. Cockerell.

It was resolved that each recipient of a grant be asked for an itemized statement of expenditures.

It was resolved that the American Association for the Advancement of Science gives its approval to the general plan of the George Washington Memorial Association to collect funds for the purpose of erecting a building in the city of Washington adapted for a meeting place for national and other scientific societies, and other organizations, and that a committee of five be appointed to assist in the effort.

It was resolved, that with a view to the proper conduct of such investigations as will aid in lessening the waste of life and resources which now characterizes the mining industry of the United States, the American Association for the Advancement of Science respectfully urges the Congress of the United States to establish, during its present session, a national bureau of mines. Resolved, that copies of this resolution be sent to the Speaker of the House of Representatives, the President of the Senate and the President of the United States.

It was resolved that the American Association for the Advancement of Science approves the appointment of an eminent astronomer in charge of the Naval Observatory.

The permanent secretary was authorized to issue the volumes for the Hanover, Baltimore and Boston meetings under one cover, with separate titles and indexes, but with only one list of members.

SECTIONAL MEETINGS.

The meetings of the various sections, many in joint session with affiliated societies, were perhaps the most successful in the history of the Association, as measured by the number of members attending, by the number and quality of the papers presented and by the interest with which the papers were heard and discussed. The number of papers presented before each section and its affiliated societies are approximately as follows: A, 37; B, 54; C, 254; D, 17; E, 141; F, 124; G, 122; H, 63; I, 17; K, 166; L, 30; total, 1,025.

It has been impossible to obtain a general report from every section, hence specific reports are not made here; the secretaries of the several sections will publish detailed reports.

GENERAL COMMITTEE.

The general committee met at Hotel Brunswick, at 9.30 o'clock on the evening of Thursday, December 30. It was decided to hold the next meeting at Minneapolis, beginning on the evening of Tuesday, December 27, 1910, with a general session of welcome, and the address of the retiring president. It was recommended that the meeting of 1911-12 be held in Washington, D. C.

The following officers were elected for the Minneapolis meeting:

President—Professor A. A. Michelson, University of Chicago.

Vice-Presidents and Chairmen of Sections:

Section A—Mathematics and Astronomy—Professor E. H. Moore, University of Chicago.

Section B—Physics—Dr. E. B. Rosa, Bureau of Standards, Washington, D. C.

Section C—Chemistry—Professor G. B. Frankforter, University of Minnesota.

Section D—Mechanical Science and Engineering—Professor A. L. Rotch, Blue Hill Meteorological Observatory.

Section E—Geology and Geography—Dr. Christopher W. Hall, University of Minnesota.

Section F—Zoology—Professor Jacob Reighard, University of Michigan.

Section G—Botany—Professor R. A. Harper, University of Wisconsin.

Section H—Anthropology and Psychology—Professor Roland B. Dixon, Harvard University.

Section I—Social and Economic Science—The Hon. T. E. Burton, Cleveland, Ohio.

Section K—Physiology and Experimental Medicine—Professor F. G. Novy, University of Michigan.

Section L—Education—President A. Ross Hill, University of Missouri.

Permanent Secretary (for five years)—Dr. L. O. Howard, Washington, D. C.

General Secretary—Professor Frederic E. Clements, University of Minnesota.

Secretary of the Council—Professor John Zeleny, University of Minnesota.

Secretary of the Section of Social and Economic Science—Fred C. Croxton, Washington, D. C.

Treasurer—The selection of a treasurer, to succeed R. S. Woodward, was referred to the council, with power.

REPORTS OF COMMITTEES.

COMMITTEE TO INQUIRE INTO THE MANNER AND COST OF PUBLICATION, DISTRIBUTION, AND USE OF PUBLICATIONS, OF AMERICAN SCIENTIFIC SOCIETIES.

Your Committee sent out 44 letters to scientific societies, requesting information on the expense and distribution of publications. Fifteen societies replied to the first circular, and a repeated letter brought in eight further replies. Besides these, replies from six societies were obtained, which were so indefinite that they could not be used. In making up the list of societies to which questions were sent, on the whole, those maintaining large buildings of their own, and which operated their libraries in the manner of public libraries, were excluded; and, on the whole, only societies depositing their collection of books in larger libraries, those maintaining libraries without having buildings of their own, and those that do not accumulate any books, were included.

In tabulating the returns, the actual cost of each publication has been determined by dividing the expense of publication by the edition. The expense of transportation, and remuneration of editors or of their clerks, are presumably not contained in most of the returns received. The value of the books distributed by the societies has been computed accordingly by multiplying the cost of manufacture per copy by the number distributed. The same method has not been used for recording the income from sales. In this case the actual number of copies sold could not be ascertained, only the total amounts received.

It must be understood that the calculation of the value of copies furnished to members is based entirely on cost of manufacture. In those societies whose membership recruits itself from persons actually interested in science the value of the copies furnished to members is great. In the majority of cases the membership of the society includes many persons who are sufficiently interested in the subject-matter to make them willing to support scientific work without, however, being interested in the publications of the society. It is difficult to estimate the number of copies which are distributed among members of this group; but it is obvious that this distribution, while it may help to hold the interest of members, is of no direct service to science.

It appears from the tabulation that the total average cost of publication for the three years 1906-1908, of 23 societies, amounted to \$26,447.13 per year; the total value of copies furnished to members, to libraries, for review, and for sales, to \$22,438.08; so that, outside of the handling of the publications and editorial expenses, the societies lost \$4,009.05 (Table I).

Of the total amount received from the distribution of publications, \$4,073.55 had been furnished to libraries; so that it appears that a total of 15 per cent. of the funds used for publication by learned societies goes toward the maintenance of libraries.

It seemed of interest to investigate the efficiency of the considerable amount of money devoted by the learned societies to library purposes. The societies have been grouped in three classes:

I. Societies depositing their libraries either in larger institutions maintaining libraries or in public libraries. There are 9 of these societies in our list, who pay \$9,025.39 for their publications, and the value of whose exchanges is \$2,102.66; consequently about 23 per cent. of the total expense of their publications is given over to library purposes (Table II).

Inquiry among the libraries at which these publications are deposited revealed the fact that many of the publications thus received are neither bound nor shelved, but either stored by the libraries or utilized for secondary exchanges; that the series received in exchange are in no case complete; and that in some cases the same sets of journals were received as deposits from different societies; so that the actual return for the money thus invested seems to be exceedingly slight. A few replies obtained from libraries also showed the fact that in those cases in which, by agreement, the library deposited by a society had to be kept as a separate unit, it was felt more as a burden than as an advantage; and the replies received show a tendency on the part of the libraries to discontinue contracts of this type. In some cases the library assumes the burden of binding the exchanges received, which then constitute an ever-increasing lien upon the library, making its withdrawal more and more difficult, and the duplication of books

in the larger library more and more unnecessary. The actual returns either to the managing library or to the learned society from books deposited are, comparatively speaking, small.

II. Four societies maintain libraries in the offices of the editor or secretary. The amount used for publication by these societies is \$2,557.98; the value of their exchanges, \$281.30. It appears, therefore, that they use for exchanges 11 per cent. of the total amount used for printing. Inquiries regarding the availability of their collections of books revealed the fact that in every case the series of exchanges were incomplete, and the books "not yet available for use, but they will be in the future" (Table III).

III. Nine societies do not maintain any libraries. The total expense of printing for these is \$14,326.91 per year; the amount used for exchanges, \$891.92, or 6 per cent. of the total amount used for printing. In these cases the libraries receive no return whatever for their outlay except so far as the exchange copies represent review copies, and so far as they furnish material to the editor (Table IV).

The result of this fragmentary inquiry conducted by your Committee shows that learned societies expend a large amount of their income upon contributions to libraries without increasing correspondingly library facilities, and that much greater efficiency could be attained if libraries could be induced to become subscribing members of societies, receiving publications at cost price.

Reports from the following societies were received (the numbers correspond to the numbers in the following table):

1. Geological Society of America.
2. Washington Academy of Sciences.
4. New York Entomological Society.
5. Indiana Academy of Sciences, Indianapolis.
6. New York Academy of Sciences.
7. Archæological Institute of America.
8. American Ornithologists' Union.
9. New York Pathological Society.
10. Connecticut Academy of Arts and Sciences, New Haven.
12. The Academy of Science of St. Louis.
13. Ohio Academy of Science, Columbus.
14. Philosophical Society of Washington.
16. Entomological Society of Washington.
17. American Anthropological Association.
18. American Ethnological Society.
19. American Folk-Lore Society.
20. Warren Academy of Sciences, Warren, Pa.
22. Linnæan Society of New York.

23. Torrey Botanical Club.
 Academy of Science and Letters of Sioux City, Ia.
 Minnesota Academy of Sciences, Minneapolis.
 Sierra Club of San Francisco, Cal.
 Astronomical Society of the Pacific.

I.

Society No.	Average Value per Year of Total Copies Distributed.				Average Cost of Edition.			Profit or Loss.
	Income from Sales.	Value of Members' Copies.	Value of Exchange and Review Copies.	Total Value.	Edition Printed.	Per Vol.	Whole Edition.	
1	\$793 14	\$1,522 50	\$483 00	\$2,798 64	530	\$5 25	\$2,784 80	+ \$13 84
2	87 49	355 00	258 00	700 49	1,200	1 00	1,197 72	-497 23
3	49 45	320 04	132 30	501 79	750	1 26	947 98	-446 19
4	427 61	*	48 84	476 45	350	1 32	463 29	+ 13 16
5	.....	57 30	52 80	110 10	1,500	30	443 89	-333 79
6	33 26	625 78	469 00	1,128 04	1,075	1 34	1,437 07	-309 03
7	1,181 69	4,512 31	261 25	5,955 25	3,066	2 09	6,410 72	-455 47
8	471 72	1,448 44	58 80	1,978 96	1,100	1 96	2,159 15	-180 19
9	.....	298 90	54 90	353 80	300	1 22	365 00	- 11 20
10	.....	446 00	780 50	1,226 50	750	2 23	1,675 34	-448 84
11	.....	816 00	32 00	848 00	4,000	32	1,272 50	-424 50
12	52 16	126 42	285 67	464 25	1,100	49	536 85	- 72 60
13	21 18	46 20	5 72	73 10	833	22	183 00	-109 90
14	2 74	196 47	161 66	360 87	500	59	†297 00	+ 63 87
†15	.....	30 00	90 00	120 00	1,000	20	200 00	- 80 00
16	121 61	135 32	28 56	285 49	500	68	338 76	- 53 27
17	815 04	§1,355 75	68 75	2,239 54	717	2 75	1,972 59	+266 95
18	.....	204 37	.....	204 37	200	1 91	382 50	-178 13
19	341 28	825 60	.....	1,166 88	700	1 72	1,203 47	- 36 59
20	.....	27 00	§§27 00	54 00	150	36	55 00	- 1 00
21	12 50	14 85	27 00	54 35	500	27	137 50	- 83 15
22	62 50	96 00	96 00	254 50	550	64	350 00	- 95 50
23	414 00	528 91	139 80	1,082 71	700	2 33	§§§1,633 00	-550 29
	\$4,887 37	\$13,477 16	\$4,073 55	\$22,438 08			\$26,447 13	-\$4,009 05

* Included in income from sales.

† Average for two years only.

‡ All values for 1906 only. Nothing published in 1907 and 1908.

§ Including members of Washington Society and American Ethnological Society.

§§ Estimated.

§§§ For Bulletin and Torrey.

II. Societies Depositing their Libraries in Larger Institutions.

Society No.	Value of Deposits.	Cost of Manuf. of Publications.
1	\$483 00	\$2,784 80
4	48 84	463 29
6	469 00	1,437 07
10	780 50	1,675 34
13	5 72	183 00
5	52 80	443 89
20	27 00	55 00
22	96 00	350 00
23	139 80	1,633 00
	\$2,102 66	\$9,025 39

III. Societies with Library in Small Room.

Society No.	Value of Deposits.	Cost of Manuf. of Publications.
3	\$132 30	\$947 98
11	32 00	1,272 50
15	90 00	200 00
21	27 00	137 50
	\$281 30	\$2,557 98

IV. Societies without Libraries.

Society No.	Value of Deposits.	Cost of Manuf. of Publications.
7	\$261 25	\$6,410 72
8	58 80	2,159 15
9	54 90	365 00
16	28 56	338 76
14	161 66	297 00
2	258 00	1,197 72
18	.....	382 50
17	68 75	1,972 59
19	.....	1,203 47
	\$891 92	\$14,326 91

Respectfully submitted,

FRANZ BOAS, *Chairman.*

J. McK. CATTELL,

WILLIAM TRELEASE,

EDWIN G. CONKLIN,

R. S. WOODWARD.

THE COMMITTEE OF ONE HUNDRED ON NATIONAL HEALTH.

Since its organization in April, 1907, the Committee of One Hundred has expended to date \$44,236, the chief items being as follows:

Printing and Stationery.....	\$11,053.00
Postage	8,003.00
Office expenses (including salary of the Executive Secretary, clerical expenses, filing, keeping lists, rent, light, heat, janitor, etc.)....	12,967.00
Etc.....	12,213.00
	<hr/>
Total.....	\$44,236.00

The results accomplished by this expenditure may be classified under three heads: 1st, Publicity; 2nd, Insurance; 3rd, Legislation. These may be briefly taken up in order:

1st, Publicity. The Committee of One Hundred has distributed *forty-two publications*, the total number of pieces of mail matter sent being upwards of 900,000, or nearly a million.

Besides this direct publicity, a much more important publicity has been that obtained through the *newspapers* of the country. Clippings representing this publicity nearly fill two enormous scrap books of five hundred pages each.

And a still more important branch of publicity, because more permanent, is the new *magazine publicity* stimulated largely by our Committee. A special department co-operating with us has been established by the "World's Work." Special attention to the subject of health is now being given systematically by McClure's and other magazines, especially those published by insurance companies. It is notable also that the bulletins of State and Municipal Boards of Health are devoting more attention to educating the public, quoting often the literature of our Committee.

The volume of health literature among magazines has increased many fold since the work of the Committee of One Hundred was inaugurated. Much of this increase has been traceable to our movement. Through this publicity the public has become interested in health matters, habits of living have improved, health legislation has been enacted, philanthropists have been stimulated to give to health objects. It was directly or indirectly through our organization that the subject of health was recognized in President Roosevelt's Conservation Commission, and the Commission on Country Life. One of the reports of the former Commission was by the President of the Committee of One Hundred, on "National Vitality" and the recommendations of the Country Life Commission were largely sanitary. One of

the members of the latter Commission, Walter H. Page, who is also one of the members of the Committee of One Hundred, and who introduced a health department into his journal, the "World's Work," first interested Mr. Rockefeller in the extermination of the hookworm disease. The result has been that Mr. Rockefeller has contributed one million dollars for this important branch of public health work.

It is believed that the publicity work of the Committee has alone been worth, in educational value, the entire cost of the work. It would certainly be difficult to find a case where greater publicity has been attained at a cost within our total expenditure.

2nd, Insurance. Through the activity of Mr. Hiram Messenger, Actuary of the Travelers Insurance Company, a member of the Committee of One Hundred, and the President and other members of the Committee of One Hundred, the life insurance companies have become aroused to the possibility of saving millions of dollars to policy holders and stock holders by the prolongation of human life through sanitary means. The Committee presented a plan before the Association of Life Insurance Presidents which led to the appointment of a committee by that Association on "Human Life Extension." Although as yet little has been done by this committee as a body, some individual companies have already entered the field with enthusiasm and there are plans on foot for further extension of this work.

One of the companies, the Metropolitan, through Mr. Lee Frankel, a member of the Committee of One Hundred, who had been interested in this phase of life insurance prior to the work of the Committee of One Hundred, has distributed three millions of pamphlets on tuberculosis through its policy holders, has engaged the services of visiting nurses in various cities to take care of their bed-ridden policy holders, and has attempted, though thus far without success because of certain legal restrictions, to establish a sanatorium for the care of tuberculosis invalids.

The Provident Savings Life Insurance Company has established a Bureau for the free periodical examination of its policy holders, and bulletins of information in regard to methods of keeping well. Some of their literature is based on that of the Committee of One Hundred.

The New York Life Insurance Company has co-operated in an effort to improve the milk supply.

Several other companies have given special attention to health preservation in their Insurance Journals.

Of all the results thus far accomplished, the setting in motion of this great commercial interest has been more important than the publicity and is destined to be far more important in the future. The insurance companies are like a great machine which never tires.

Their work will be on a vaster scale than that of any philanthropy, and being self supporting, is permanent. No agency can be more powerful for the public health except that of the National Government.

3d, Legislation. The Committee of One Hundred has aided certain legislation in the States, some of which would not have been passed without its aid, notably the law in Connecticut for the "Sterilization of Degenerates." It has also laid the foundations for National Health Legislation which it is hoped to pass in the present session of Congress.

These foundations are as follows:

The interest and endorsement of the great men of the nation.

Formal endorsements have been received from ex-President Roosevelt and President Taft, a large number of Congressmen, Mr. Bryan, and a large number of governors of States.

Resolutions of endorsement from important organizations.

Labor organizations such as the United Mine Workers of America, the National Grange, Insurance organizations such as the Associated Fraternities of America.

Medical and Sanitary Associations, such as The American Medical Association and the American Public Health Association, and about a score of others.

Patriotic societies such as the National Municipal League, some Chapters of the Daughters of the American Revolution, etc.

The Ohio State Legislature passed a special resolution favoring the establishment of a National Bureau of Health.

The Party platform of some States, such as Ohio, Delaware, and Connecticut, contained planks favoring such legislation.

The National Party platforms of the Republican, Democratic, and Independence League contained our health planks.

These are the first instances of health planks in political platforms and they were inserted, in the face of much opposition, through our efforts in co-operation with the American Medical Association.

President Roosevelt advocated our legislation in two of his messages to Congress and submitted our proposals to his Commission on the Organization of Scientific Work of the Government, which reported back owing to certain opposition which need not be described here.

President Taft has not only endorsed the work in letters to the Committee, and also several public speeches, including his speech of acceptance, but he has also done so in his recent message to Congress, as well as by giving us assurance that he would send a special message to Congress later.

He submitted to our Committee the plan proposed to him by the Surgeon General of the Public Health and Marine Hospital Service, for health legislation, and has asked for our own suggestions. The latter for the most part he has accepted. Our organization and the American Medical Association were the two organizations to which he has given most heed.

When President Taft sends his special message to Congress with an administration bill to carry out his plan, there will remain only the task of securing votes to carry out the proposal to which the Republican party and the President are committed. The President's interest in this matter is very active and he desires to mark his administration by the establishment of a great health organization.

The results achieved under the head of legislation are of little value unless they can culminate in the passage of President Taft's proposed bill.

These results have been brought about through the following organization: The Committee of One Hundred itself was organized in consequence of the vote passed by the Economic Section of the American Association for the Advancement of Science at its summer meeting, held at Ithaca in 1906. It was organized in April, 1907. Its chief sub-committees are the Executive Committee, the Committee on Legislation, the Committee on Finance, and the Committee on Publicity.

The Committee of One Hundred has affiliated organizations as follows:

A. The American Health League, consisting of an enrollment of twenty-five thousand persons, with numerous local advisory committees. The functions of the American Health League are: (1) To support financially the work of the Committee of One Hundred. (2) To mould public opinion locally. (3) To impress Congress.

B. The Authors' League of 1,000 writers on hygiene and allied topics. The function of the Authors' League is to write articles in support of the object of the Committee of One Hundred.

C. The Press Council of one hundred leading editors, the function of which is to enlist the interest of the Press.

Special Organizations. The American Health League of Ohio has been given a special separate charter and has created its own "Committee of One Hundred of Ohio," and has been active in health matters for that State. The active spirit and Secretary is Mr. Ben LaBree, Jr.

A special Secretary for Massachusetts was appointed in the person of Dr. Charles H. Bangs of Lynn.

Many field secretaries have been appointed and the Local Advisory Committees, so far as they have been organized, have had their own officers.

The Committee of One Hundred and its American Health League have absorbed the former Public Health Defense League, the Colorado Association for Medical Legislation, and the National Mosquito Extinction Society.

The American Health League assisted in the formation at Chautauqua in the summer of 1909 of the Health and Efficiency League, to act in affiliation with the American Health League, its special sphere being personal as distinct from public hygiene.

It should be stated that the extended organization of the Committee of One Hundred, *i. e.*, the American Health League, its local advisory committees, etc., has been a disappointment. Financially it has not been of much assistance, since it has cost, in sending out literature, bills for unpaid one-dollar dues, etc., practically as much as it has brought in. But there has been much cordial co-operation in individual cases and places. The chief work has been done, however, by the Committee of One Hundred itself, and its chief workers have been the members of its sub-committees. The present sub-committees are the following:

Executive Committee.

Prof. Irving Fisher, New Haven, Conn., Chairman.

Dr. Thomas Darlington, New York City, Health Officer.

Mr. Lee Frankel, New York City, Manager of the Industrial Department of the Metropolitan Life Ins. Co.

Mr. Byron W. Holt, Chairman of the Tariff Reform Com., Reform Club.

Dr. J. N. McCormack, Bowling Green, Ky., "Organizer" of the American Medical Association.

Dr. Richard C. Newton, Montclair, N. J., Writer on Hygiene.

Dr. George J. Fisher, New York City, Head of the Physical Training Dept., Y. M. C. A.

Legislative Committee.

Hon. George Shiras, III, Washington, D. C., Chairman, Formerly Congressman from Pennsylvania, Son of Justice Shiras of the Supreme Court.

Miss Mabel T. Boardman, Washington, D. C., Member Executive Committee, Red Cross Association.

Dr. Geo. M. Kober, Dean of the Medical School, Georgetown University.

Dr. Wm. C. Woodward, Health Officer, District of Columbia.

Dr. Z. T. Sowers, Physician, Washington, D. C.

Dr. J. J. Kinyoun, Bacteriologist, Dept. of Health, District of Columbia.

Publicity Committee.

Mr. Byron W. Holt, New York City.

Prof. Irving Fisher, New Haven, Conn.

Paul Kennaday, New York City, Executive Secretary of the Committee of One Hundred.

Finance Committee.

(Now being reorganized. Mr. Lee McClung, formerly treasurer of Yale University, has been chairman of this Committee until made Treasurer of the United States.)

Report on the Work of the Concilium Bibliographicum during the year 1908

The necessity of conforming to the fiscal year prescribed for Swiss Government accounting (the calendar year) makes again this report decidedly post festum. I therefore add a few words regarding recent events, leaving the appended printed report on 1908 to speak for itself.

The past 12 months have been the most strenuous we have ever known. To continue such a strain would however be folly. The director believes his work hours have averaged nearly 10 hours a day without deduction for Sundays or vacations. Such intense concentration cannot be continued without overtaxing even the most robust constitution and so a vice-director has been appointed. The step is a bold one, but it could not be delayed.

Much progress has been made in increasing the rate of publication of our bibliographical references, the number of cards promising to be quite double the number issued in 1908. To accomplish this, the debt of the institution has been increased by about \$3,500. The final balance sheet will show how far outstanding assets off-set this considerable outlay.

An important step during the past year has been the formal incorporation of the Concilium. Under the charter, shares of the value of \$20 each have been issued and it is to be hoped that members of the American Association will become part owners of the institution supported by its grants.

The closing month of the year opens with a waiting list of unfilled orders such as has never been known before. Cambridge University heads the list with orders aggregating \$600. An order from Cologne amounts to \$180 and there are over 20 smaller orders. It is particularly gratifying to see how individual zoologists are finding it to their advantage to turn to us for information. Finally 600,000 printed cards are still to be sorted for shipment to subscribers. I believe this, too, is a record showing.

The greatest cause for optimism at present should not be omitted here, even though no details can yet be made known. An offer has been made for providing funds for a geological section on terms which promise success and are certainly much more favorable than arrangements made for other portions of the work.

In closing, permit me to thank the Association for the support it has given us during the past year. From the foregoing, it will be evident that the need for a further grant is particularly great at the present moment. It is with confidence that I appeal to the Council for

a renewal of the grant to the work. I do not believe that a more fruitful mode of promoting research could be found, though the benefits may be less conspicuous, because of the very fact of their being so widespread.

Vol. 4 p. 41—49.

Zurich, Dec. 1908.

ANNOTATIONES

CONCILII BIBLIOGRAPHICI

CONCILIUM BIBLIOGRAPHICUM.

Zurich, Switzerland.

ANNUAL REPORT FOR 1908.

The year 1908 felt the effects of the crisis which reached its height in December 1907. The difficulties with which the Concilium then had to struggle were indicated in our preceding report. Scarcely had the question of the construction of new buildings received a satisfactory solution when the financial crisis prevented us from utilizing adequately our new quarters. An enterprise like the Concilium, which depends for its capital upon loans made to it on collateral belonging to friends of the work, is necessarily considerably affected by the state of the Stock Market. For the Concilium the collateral consisted in American stocks, which, as will be remembered, suffered greatly in the course of the foregoing winter. At the beginning of 1908 the printing office of the Concilium needed complete and costly reorganization. For the start, however, we were obliged to be contented with a provisorium which became little by little insupportable. To escape from this, negotiations were opened with a stock company for taking over the entire printing department. A contract was ready to be signed, when suddenly new demands were made upon us, which led to the abandonment of the entire project. This affair resulted in serious loss of time. Thereupon, a new provisorium was established and this trial is now to lead to a 5 years' contract. The printing office takes the name of "Typographia Bibliographia," and will be run as a separate enterprise by an experienced printer.

Since October 1, 1908, new life has come into the Concilium. Ever since 1906, the printing of the bibliography had not been able to keep pace with the rate of publication, and consequently with the rate of accumulation of manuscript. In consequence, a considerable stagnation of unused manuscript had taken place. Since October, on the contrary, the number of cards published is in excess of the rate of publication, so that from day to day an improvement can be seen. Still, it is impossible to count on a quick change in this regard, for greater speed could only be brought about at the cost of exactitude. In all bibliographical work, it is of the greatest importance to assign a given department to a single worker, for it is impossible to draw up sufficiently exact instructions for several collaborators so to produce uniform work. Therefore, we have found that the rate of printing should not be so rapid as to prevent the person responsible for a given portion of the work from being able to prepare the manuscript for press and personally revise the proof. The resumption of work could not take place in all branches simultaneously. For certain portions almost all references to the years 1906, 1907, and 1908 have already been published, while in other departments the subscribers have scarcely noticed any improvement at all. Physiology has, in general, had the least to suffer; Anatomy the most: one can even say that the Anatomical Bibliography was suspended during the critical period. On the other hand, it is to be noted that the anatomical manuscript is composed at present of references which render far more completely than formerly the contents of each publication reviewed. In this regard, it has reached the level of the Physiological Bibliography, which is what we have long wished to attain. One of the reasons for holding back the anatomical manuscript was that Neurology caused us special difficulties. For months, it has been the principal occupation of the person charged with anatomy to improve this department. We have the intention of submitting our propositions to a certain number of neurologists, and as soon as we have reached final decisions in the matter the work will be taken up energetically.

The increase of the scientific staff of the Concilium undertaken at the end of 1907 has permitted a greater division of labor, which will certainly prove advantageous. During the past year a new system has been introduced with success for securing the co-operation of authors in preparing résumés of the publications. For this we may refer to the special article on this subject which is to be found in the present volume of the "Annotations."

Since its foundation the *Typographia Bibliographia* has printed the bibliographical part of the *Zoologischer Anzeiger* (*Bibliographia Zoologica*) as well as the *Bibliographia Physiologica*, which had for a long time past been printed by us. Formerly, the cards of the Concilium were sent to Leipzig and used there as manuscript. This new arrangement, we believe, will lead to greater accuracy in the

publication. Furthermore, as soon as the bibliography in book form shall have caught up with the card edition, we hope that there will be a certain financial advantage in the change.

In the course of the year, a new electro-chemical section of the Concilium was founded. Up to the present its founder has been entirely occupied with preliminary duties. As a first publication a list of the important periodicals relating to the subject to be found in the Swiss libraries will be issued. Each notice will give exact information in regard to the title, the editor, the volume in course of publication and the number of fascicules appearing yearly, together with the abbreviation adopted for bibliographical work. Also the price of the current volume and parts of those already published; the size and the name and address of the publisher are given. This information is furnished by the publishers themselves in reply to letters sent to them individually. The list will appear as loose leaves which by means of a practical clamp can be bound together in such way that additions may easily be made. We are confident that this work will be very useful in library circles.

Since our last report, the German Empire has transmitted a diplomatic memorial to the Swiss Federal Government in which the foundation of a bibliography for forestry in connection with the Concilium is advocated. In view of this project, negotiations have taken place which seem most promising.

In the spring of 1908, the Unione Zoologica took up the question of a more complete participation of Italy in the work of the Concilium. Since the report in regard to the decision taken by the society is published in the present volume, it is enough for us to call attention here to these encouraging efforts.

As in the past, a certain number of bibliographies stand ready to join hands with Concilium. If the financial situation had been better, certain of these projects might have been realized; but it was necessary to act with extreme caution. A peculiar fact in regard to the Concilium is that the results of a change in its administration in a given year are not felt until the ensuing year. Thus it is that from a financial standpoint, in spite of the improvement chronicled, the showing has been much worse than the year before. For the coming year we shall be obliged to expect a decided increase of expenses without being able to count upon a corresponding increase of income.

GENERAL STATISTICS.

Bibliographia Zoologica (Zoolog. Anzeiger).

During the year 1908 there appeared in connection with the Zoolog. Anzeiger (References consecutively numbered since 1896):

Bibliographia Zoologica T. 14 p. 49—480. References 98717—104415.
 Bibliographia Zoologica T. 15 p. 1—112. References 104416—105904.
 Or in all 7188 references for the year.

Bibliographia Physiologica (Zentralbl. f. Physiol.).

During the year 1908 there appeared in connection with the Zentralblatt für Physiologie:

Bibliographia Physiologica (3) Vol. 3 No. 2—4 p. 59—353.

Bibliographia Physiologica (3) Vol. 4 No. 1 p. 1—116.

Bibliographia Protozoologica (Archiv f. Protistenkunde).

During the year 1908 there appeared in connection with the Archiv für Protistenkunde:

Bibliographia Protozoologica 1906, 2nd Part; 1907, 1st Part; 1908, 1st Part.

Main Card Catalogue.

The number of individual primary cards issued since the foundation of the Concilium had on December 31, 1908, attained the grand total of 23,288,000.

The following table shows the total number of entries in a complete set of cards arranged by subjects and by authors. The years refer to the date of publication of the cards.

About 2750 palæontological cards and 16450 zoological cards are out of print.

<i>A) Subject index</i>	1896-1903	1904	1905	1906	1907	1908	Total
1. Palæontology	11001	2113	2033	1711	507	539	17904
2. General Biology	878	233	120	148	48	44	1477
3. Microscopy, etc.	1186	167	137	141	39	21	1691
4. Zoology	87038	14620	16357	13074	6069	6798	143962
5. Anatomy	9991	2148	2136	1610	606	224	16715
6. Physiology	3042	—	2644	2582	2534	4913	15715
Total	113136	19287	23433	19266	9803	12539	197464
<i>B) Authors' Index</i>	61712	9480	13064	9439	6267	8320	108282
Total	174848	28767	36497	28705	16070	20859	305746

The so-called "systematic set" for Zoology and Palæontology contained: 1896-1903: 52482; 1904: 8595; 1905: 9225; 1906: 7673; 1907: 3340; 1908: 4141; Total, 85456 cards.

DISTRIBUTION BY TOPICS.

The distribution of primary cards in the chief divisions of the bibliography is shown in the following tables. These figures are however considerably greater than the number of cards that can now be supplied, for many cards of the earlier years, especially in the non-systematic divisions, are out of print. The number of cards found wanting is stated for each chief division in parenthesis (count made in Aug., 1905).

To ascertain the price of any set of cards (not allowing for reductions due to the absence of cards that are out of print), it suffices to find in the schedule of prices (Annotationes Vol. 1 p. 13—15) the price corresponding to the number of cards given in the following table.

The sequence of topics is that of the Conspectus. For further details regarding classification, this should be consulted.

I. Palaeontology.

Generalia total 318 (4), Subsidia studii, Musea 53, Historia 10, Bibliographia 52, Biographia 136.

Stratigraphia total 5698 (1066); Palaeozoicum 1242, Mesozoicum 1800, Tertiaerium 1762, Quartarium 841.

Europa total 3494 (515): Great Britain 499; Deutschland 602, Oesterreich-Ungarn 571, France 537, Italia 457, Espana, Portugal 71, Russia 168, Scandinavia 66, Nederland 10, Belgique 147, Switzerland 132, Balkans 98.

Asia 250 (50); Africa 313 (52).

North America total 626 (202): U. S. A. total 741; Atlantic 164, Central 185, Mountain 239, Pacific 67.

South America 185 (62); Oceania, Australia 243 (37); Polar-regions 30.

Invertebrata generalia 882 (15), Protozoa 284, Porifera 40, Cnidaria, Graptolites 231 (6), Echinoderma 249 (3), Mollusca total 1703 (43); Lamellibranchia 354, Gasteropoda 258, Cephalopoda 417, Bryozoa 81 (7), Brachiopoda 162 (2), Vermes 18, Crustacea 282 (5), Trilobita 117, Arachnida 15, Myriapoda 3, Insecta 121, Vertebrata generalia 168 (16), Pisces 375, Amphibia 50 (1), Reptilia 492 (10), Aves 85 (5), Mammalia total 1313 (214), Marsupialia 25, Edentata 48, Rodentia 48, Cetacea 57, Sirenia 8, Prœungulata 132, Ungulata vera 230, Carnivora 85, Quadrumana 81, Bimana 80.

II. General Biology.

Evolutio total 1261 (8), Hereditas 405, Variatio 136, Media ambientia 50, Selectio naturalis 109, Selectio sexualis 13, Degeneratio 9, Substantia animata, vita etc 245, Sexualitas 61.

III. Microscopy, Museum Technique.

Microscopia 1553 (32), Conservatio pro museis etc. 191 (13).

IV. Zoology.

Generalia total 4084 (321), Classificatio, Nomenclatura etc. 436, Compendia 316, Subsidia studii, Musea, Laboratoria etc. 1392, Historia 240, Bibliographia 365, Biographia 1139.

Physiologia total 5710 (999), Generalia 627, Circulatio 159, Respiratio 197, Nutritio 323, Secretio 306, Variatio, Coloratio 2066, Generatio 836, Regeneratio 547, Motus 391, Systema nervosum 434, Functio photogenetica 84.

Teratologia total 562 (135), Organa circulationis 27,—respirationis 3,—nutritionis 51, Lien 5, Organa urogenitalia 74, Sceletum 64, Musculi 6, Integumentum 44, Systema nervosum 36, Somatologia externa 156.

Embryologia total 2947 (561), Ovum, Segmentatio 497, Laminæ germinis, gastrula 162, Embryo, primordia 282, Metamorphosis, Larvæ 692, Embryologia experimentalis 617.

Anatomia total 10609 (1628), Organa circulationis 431,—respirationis 390,—digestionis 1225, Systema lymphaticum, Lien, Thymus, Thyreoidæ, Suprarenales 406, Organa urogenitalia 1598, Osteologia 1177, Myologia 310, Organa electrica 24, Integumentum 695, Systema nervosum 2233, Somatologia (generalia) 96, Caput 71, Extremitates 379, Appendices corporis 184.

Biologia, mores total 7414 (982), Instinctus 145, Locus, migratio 497, Alimentum 521, Anni Tempora, hibernatio 275, Socialitas, Myrmecophilia 379, Neomelia, Reproductio, Oologia 1192, Cantus 145.

Zoologia economica total 6791 (1201), Usus 961, Noxæ 2199, Parasita 3192 (322).

Histologica total 1105 (208), Cytologia 624, Tela conjunctiva 89, Cartilago 49, Os 52, Sanguis 364, Musculus 142, Epithelium 73, Systema nervosum 502.

Distributio geographica generalia 180, Insulæ 31,* Montēs 18,* Cavernæ 174,* Maria, oceani, Plankton 1224,* Asquæ dulces, Limno-plankton 212.*

Europe total 11724 (2370), Great Britain 2802, Deutschland 1327, Oesterreich-Ungarn 1139, France 1336, Italia 796, Espana, Portugal 461, Russia 750, Scandinavia 553, Iceland 32, Nederland 144, Belgique 122, Switzerland 438, Balkans 279.

Asia total 3791, China 367, Japan 485, Arabia 108, India 811, Persia 71, Asia minor 228, Siberia 336, Afghanistan, Beluchistan, Buchara, Chiva 36, Further India 448.

*) In the divisions Islands, Mountains, Seas and Fresh Water, the statistics include only papers that can not be referred to any specific country. Wherever possible, island forms and marine forms have here been counted with the nearest land.

Africa total 4729 (906). North 983, Central 1600, South 658, Madagascar 428.

North America total 5749 (982), Canada 419, Mexico 424, Central America 170, Antilles 397, U. S. A. generalia 584, North Eastern States 679, South Atlantic 339, Gulf and South Central 238, North Central 474, Western and Mountain 438, Pacific 745.

South America total 2588 (420), Brazil 416, Argentina 209, Chile 168, Bolivia 68, Peru 92, Colombia, Ecuador 294, Venezuela 79, Guiana 75, Paraguay, Uruguay 60.

Oceania, Malaysia, Australasia, Polar regions total 4230 (388). Malaysia 1229, Australasia total 2059, Australia 1037, N. Guinea 509, Polynesia 343, Arctic regions 170, Antarctic regions 89.

Invertebrata generalia 524 (3).

Protozoa total 2383 (46), Rhizopoda 175, Foraminifera 109, Heliozoa 21, Radiolaria 54, Infusoria 1004, Sporozoa 665.

Porifera 288.

Cnidaria total 934 (15), Anthozoa 401, Hydrozoa 451, Ctenophora 30. Echinodermata total 694 (6), Pelmatozoa 24, Asterozoa 149, Echinoidea 213, Holothuroidea 96, Enteropneusta 41.

Mollusca total 4350 (56), Lamellibranchia 682, Scaphopoda 9, Gastropoda 2526, Amphineura 74, Pteropoda 23, Cephalopoda 198. Molluscoidea (Brachiostoma) total 215 (4), Bryozoa 162, Brachiopoda 50.

Tunicata total 238, Ascidiæ 136, Salpæ 29, Doliolum 4.

Vermes total 3695 (25), Enterozoa (generalia) 153, Platyhelminthes (generalia) 9, Cestodes 539, Trematodes 368, Turbellarii 289, Nemertini 107, Nematodes 743, Chetognathi 20, Annelida generalia 49, Hirudinea 159, Oligochaeta 438, Polychaeta 409, Gephyrea 99, Phoronis 41, Myzostomum 17, Rotifera 149, Echinoderes 4, Gastrotricha 7, Dinophilus 8, Orthonectida 17, Dicyemida 3, Trichoplax 6.

Arthropoda generalia 328 (18), Crustacea total 2048 (50), Entomostraca 645, Malacostraca 1232, Gigantostrea 24, Arachnida 1577 (20), Protracheata 72, Myriapoda 432 (8), Insecta 27854 (1680).

Insecta generalia 1801 (20), Thysanura 223 (3), Orthoptera 1022 (19), Pseudo-Neuroptera 631 (17), Neuroptera 416 (10).

Hemiptera total 2265 (88), Apterata 62, Phytophthires 824, Homoptera 295, Heteroptera 691.

Coleoptera total 6997 (172), Pentamera (generalia) 15, Adephaga 1252, Clavicornia 439, Lamellicornia 795, Sternoxia 317, Malacodermata 378, Heteromera 389, Tetramera 1685, Trimera 145.

Diptera total 2453 (44), Nematocera 914, Brachycera 1027, Pupipara 49, Aphaniptera 113.

Lepidoptera total 7752 (92), Heterocera (generalia) 446, Microlepidoptera 858, Macrolepidoptera (generalia) 545, Geometræ 501, Noctuæ 634, Bombyces 1143, Sphinges 389, Rhopalocera 1064.

Hymenoptera total 3505 (88). Terebrantia (generalia) 6, Entomophaga 741, Phytophaga 374, Aculeata (generalia) 137, Chrysididæ 53, Formicidæ 554, Fossoria 384, Vespidæ 167, Apidæ 922.

Vertebrata total 23250 (306), generalia 1433 (28).

Pisces total 3688 (1), Amphioxus 75, Cyclostomi 167, Elasmobranchii 393, Ganoidea 130, Dipnoi 65, Teleostei 2145.

Amphibia total 1448 (28), Gymnophiona 13, Anura 691, Urodela 473.

Reptilia total 1500 (3), Sauria 435, Ophidia 481, Chelonia 216, Crocodilia 39.

Aves total 7393 (144), Gallatores 368, Natatores 634, Cursores 71, Rasores 542, Columbæ 138, Scansores 279, Insessores 1789, Raptores 337.

Mammalia total 7752 (114), Monotremata 69, Marsupialia 137, Edentata 55, Rodentia 1079, Insectivora 146, Chiroptera 286, Cetacea 213, Sirenia 26, Proboscidea 66, Hyracoidea 16, Ungulata 1070, Carnivora 671, Pinnipedia 97, Mammalia domestica (generalia), 59, Quadrumana 358, Bimana 1032.

I. Anatomy.

a) General Anatomy.

Compendia	66	Forma Embryonis	29
Subsidia studii	124	Adnexa embryonis	204
Historia	35	Embryologia experimentalis	490
Bibliographia	24	Anthropologia	104
Biographia	168	Histologia total	2208
Pathologia Teratologia	300	Cytologia	567
Embryologia (total)	2109	Tela conjunctiva	141
Sperma, Ovum	613	Cartilago	50
Fecundatio ovi	130	Os	94
Laminae germinis	183	Sanguis	438
Endoderma	22	Musculus	151
Ectoderma	13	Epithelium	79
Mesoderma	45	Systema nervosum	727

b) Organology.

Organa circulationis	643	Mamma	74
Organa respirationis	350	Osteologia	1850
Organa nutritionis	1106	Myologia	524
Systema lymphaticum, etc.	453	Organa electrica	19
Lien	73	Integumentum	427
Vasa lymphatica	82	Systema nervosum	2835
Thymus	38	(Vide Histolog.)	
Thyreoidea	60	Topographia	441
Suprarenales	123	Caput, collum	95
Glandulae lymphaticae	59	Truncus	85
Organa urogenitalia	1147	Extremitas superior	149
Organa excretoria	327	Extremitas inferior	141
Organa virilia	250	Cauda	7
Organa muliebria	329		

The topics under General Anatomy include such general works as cannot well be classified organologically. Thus, under embryology, papers on early stages, germ layers, etc., would be found, but contributions to organogeny would be classified with the organ in question. The same is true for Histology, papers on the microscopic structure of an organ being found under that organ.

The following table gives the number of cards in the special sets of anatomical cards described in our prospectus, *i. e.*, Teratology including malformations of specific organs, Embryology including Organogeny, Anthropology including the racial anatomy of the individual organs, and Histology including the microscopical structure of the various organs.

Teratologia	1000	Anthropologia	567
Embryologia	2377	Histologia	2944

VI. Physiology.

	1897-08	1905	1906	1907	1908
Generalia	55	27	56	22	61
Physiologia generalis	235	322	278	287	573
Sanguis, Circulatio	434	414	464	445	924
Respiratio	120	95	105	58	134
Digestio, Nutritio	508	682	563	563	1091
Secretio, Excretio, Lympha	393	286	230	275	557
Calor animalis	78	33	17	21	39
Reproductio	132	234	257	244	524
Motus, Vox, Cutis	240	152	142	157	250
Systema nervosum	726	392	470	463	757

Supplementary Cards.

In regard to this bibliography we would refer to our statement in the report for 1904.

Guide Cards.

The different guide cards with printed classification number at present 2089, of which 293 are for Palæontology, 14 for General Biology, 14 for Microscopy, 1279 for Zoology, 300 for Anatomy and 189 for Physiology.

Each set of secondary guide cards for zoology and palæontology contains 83 cards.

Staff.

Director: Dr. Herbert Haviland Field.

Systematics and Faunistics: Miss Marie Rühl.

Morphology: Dr. Marie Daiber.

Physiology: Dr. Hans Strohl.

Electrochemistry: Mr. Adolph L. Vöge.

Editorial Secretary: Miss Clara Streng, 1 aid.

Commercial Secretary: Miss Leonie Locher, 2 aids. 1 errand boy.

Typographia Bibliographica, Proprietor: Fritz Hinnen.

Laufende Rechnung.

vom. 1. Januar bis 31. Dezember 1908.

Einnahmen.

Geschäftsverkehr	Fr.	27940.55
Eidgenössische Subvention	"	5000.—
Kantonale Subvention	"	1000.—
Städtische Subvention	"	—.—
Amer. Assoc. Adv. Sc.	"	500.—

Total Fr. 34440.55

Ausgaben.

1. Installation, Möbel, Maschinen, Bibliothek	Fr.	529.25
2. Miete	"	—.—
3. Heizung, Licht	"	679.35
4. Versicherung	"	69.—
5. Gehalte	"	20143.78
6. Zins und Steuern	"	2918.15
7. Post, Telephon, Telegraph	"	2575.95
8. Karton, Druckpapier	"	4410.50
9. Buchbinder	"	571.30
10. Auswärtige Druckerarbeiten	"	367.40
11. Vermittlungseinkäufe	"	1893.79
12. Fracht	"	296.15
13. Reisespesen, Tagegelder	"	847.90
14. Sonstige Ausgaben:		
a. Redaktions-Bedürfnisse	"	323.06
b. Bureau-Bedürfnisse	"	1027.35
c. Lagerraum (Materialien)	"	93.68
d. Setzerei und Druckerei (Materialien)	"	761.40
e. Hausverwaltungsspesen	"	1036.95
f. Varia	"	212.85

Total der laufenden Ausgaben Fr. 38763.81

Anzahlung an Bauschuld " 55776.53

Fr. 94540.34

Inventar und Jahresrechnung 1908

Inventar.

aufgenommen am 1. Januar 1909.

<i>Aktiva.</i>		<i>Passiva.</i>	
1. Barschaft	Fr. 1773.02	1. Hypothekarschuld	Fr. 60000.—
2. Liegenschaft	" 115000.—	2. Private u. gedeckte Bankschuld	" 79895.30
3. Handbibliothek	" 434.—	3. Kreditoren	" 5989.—
4. Papier u. Karton	" 1198.95	4. Verluste	" 90.36
5. Gedruckte Bogen	" 843.90	5. Sconto	" 1000.—
6. Zettelvorrat	"		
(8,058,000)	" 2000.—		
7. Mobiliar	" 2394.—		Fr. 146974.66
8. Maschinen	" 1280.—	6. Uebertrag auf n. Rechnung	" 2785.24
9. Schrift	" 993.85		
10. Debitoren	" 23842.18		
wovon aus 1908			
Fr. 14839.45			
	<hr/>		<hr/>
	Fr. 149759.90		Fr. 149759.90

Zürich, Januar 1909.

Respectfully submitted.

HERBERT HAVILAND FIELD,

Director.

Zürich, December 5, 1909.

ON THE RELATION OF PLANTS TO CLIMATE.

The Committee on Relation of Plants to Climate reports that progress has been made in the investigations of Dr. Charles H. Shaw upon the responses of plants to light from various parts of the spectrum, and to the evaporating capacity of the air, as experienced by alpine vegetation, under a grant made to the Committee at the Baltimore meeting.

ON THE RELATION OF ECONOMIC SCIENCE TO BUSINESS EXPERIENCE.

The Committee on the Relation of Economic Science to Business Experience begs to report that in its judgment the time has come for Section I to enlist the co-operation of business men in the promotion of economic science, to the end that the rapidly developing body of business experience in various lines of productive enterprise may be systematized and rendered available for the service of material prosperity on scientifically sound lines.

CLOSING GENERAL SESSION.

The closing general session was held in Huntington Hall at 10 o'clock on the morning of Friday, December 31, 1909: President Jordan presiding.

An amendment to article 23 of the constitution, introduced by Mr. Gulliver at the Baltimore meeting, and approved by the Council, was adopted. The amended portion of the article reads as follows:

Article 23. Immediately on the organization of a section, there shall be a member or fellow elected by ballot, after open nomination, who, with the vice-president and secretary and the preceding vice-president and secretary and the presidents and secretaries of those affiliated societies which shall be designated by the Council and the members or fellows elected by ballot at the four preceding meetings, shall form its sectional committee.

Reports were read by the permanent secretary, the general secretary and the local secretary.

By resolution of the Council the president expressed the thanks of the Association for the great hospitality, courtesy and privileges extended to the members of the American Association in connection with the Winnipeg meeting and the western excursion of the British Association for the Advancement of Science.

It was resolved that the Association express its hearty thanks to the many institutions and individuals of Boston and Cambridge and vicinity who have contributed to make the meetings so successful and enjoyable. The following were mentioned:

The corporation of Massachusetts Institute of Technology.

The corporation of Harvard University.

The Museum of Fine Arts.

The Boston Society of Natural History.

Simmons College.

Boston University.

The local committee, Professor Charles S. Minot, honorary chairman; Professor H. W. Tyler, chairman of the executive committee.

Ginn and Company, donors of the Guide Books.

Boston Elevated Railway, for special cars.

The ladies' committee.

The citizens, for receptions, teas, musicales, dinners to restricted groups of members, too numerous for individual mention, but none the less sincerely thanked for the most generous hospitality shown throughout the meetings.

DAYTON C. MILLER,
General Secretary.

REPORT OF THE TREASURER.

In compliance with Article 15 of the Constitution, and by direction of the Council, I have the honor to submit the following report, showing receipts, disbursements and disposition of funds of the Association for the year ending December 31, 1909:

Receipts have come into the keeping of the Treasurer from two sources, namely from Life Membership commutations and from interest on invested funds. The total amount of these receipts is \$2,109.51.

Disbursements made in accordance with the directions of the Council amount to \$447.84.

The total amount of funds of the Association deposited in banks and subject to the order of the Treasurer December 31, 1909, is \$21,300.51.

The details of receipts, disbursements and disposition of funds are shown in the itemized statement on following pages, dated April 1, 1910.

THE TREASURER IN ACCOUNT WITH THE AMERICAN ASSOCIATION FOR THE
ADVANCEMENT OF SCIENCE.

DR.

1909.		
Jan. 1.	To balance from last account.....	\$19,638.84
Nov. 23.	To 30 Life Membership Commutations.....	1,500.00
	To interest on funds deposited in banks as follows:	
	From Cambridge Savings Bank, Cam- bridge, Mass.....	\$ 39.60
	From Emigrant Industrial Savings Bank, New York, N. Y.....	119.70
	From Metropolitan Savings Bank, New York, N. Y.....	117.28
	From Union Square Savings Bank, New York, N. Y.....	111.32
	From U. S. Trust Co., New York, N. Y.	150.00
	From International Banking Corpora- tion, Washington, D. C.....	71.61
		609.51
	Total	\$21,748.35

THE TREASURER IN ACCOUNT WITH THE AMERICAN ASSOCIATION FOR THE
ADVANCEMENT OF SCIENCE.

1909.	Cr.	
May 5.	By interest on 191 Life Memberships paid Per- ment Secretary.....	\$ 337.84
	By grant paid to the Concilium Bibliographicum	50.00
Oct. 21.	By grant paid Chas. H. Shaw.....	60.00
Dec. 31.	By cash in banks as follows:	
	In Cambridge Savings Bank, Cam- bridge, Mass.....	\$ 1,020.02
	In Emigrant Industrial Savings Bank, New York, N. Y.....	3,105.66
	In Metropolitan Savings Bank, New York, N. Y.....	3,020.81
	In Union Square Savings Bank, New York, N. Y.....	3,953.30
	In U. S. Trust Co., New York, N. Y.	6,150.00
	In International Banking Corpora- tion, Washington, D. C.....	2,569.18
	In Fifth Avenue Bank of New York, N. Y.....	2,381.54
		<hr/> 21,300.51
	Total	<hr/> \$21,748.35

I hereby certify that the foregoing account is correctly cast and properly vouched.

THEO. N. GILL,

Auditor.



REPORT OF THE PERMANENT SECRETARY.

The matters heretofore referred to in the report of the Permanent Secretary, in so far as they relate to the annual meeting, have been covered in the report of the executive proceedings prepared by the General Secretary, and duplication is avoided by omitting them under the present head.

The following is a comparative statement of the roll of members of record at the time of the annual meetings as noted:

	Chicago	Baltimore	Boston
Surviving founders.....	2	1	—
Living patrons.....	2	2	2
Living honorary fellows.....	3	1	1
Fellows	1862	1969	2195
Members	3189	4161	5752
	<hr/>	<hr/>	<hr/>
Totals	5058	6134	7950

L. O. HOWARD,

Permanent Secretary.

L. O. HOWARD, PERMANENT SECRETARY, IN
FOR THE ADVANCE-

From November 1, 1908,

DR.		
To balance from last account.....		\$ 1,564.56
Annual dues for 1909.....	\$21,528.50	
Annual dues for 1910.....	104.00	
Annual dues for previous years.....	612.00	
Admission fees.....	1,900.00	
Associate fees.....	27.00	
Life membership fees.....	1,300.00	
		25,471.50
Publications	\$ 56.94	
Binding	55.00	
Miscellaneous receipts.....	1,717.02	
		1,828.96
		\$28,865.02

I hereby certify that I have examined this account, and that it is correctly cast and vouched. The balance of \$2,847.07 was on deposit with the following Washington institutions:

National Savings & Trust Co.....	\$ 6.61
American National Bank.....	794.00
American Security & Trust Co.....	2,046.46
	\$2,847.07

THEO. N. GILL,
Auditor.

ACCOUNT WITH THE AMERICAN ASSOCIATION
MENT OF SCIENCE.

to October 31, 1909.

CR.

By publication:

Publishers <i>Science</i>	\$15,883.10
Bal. Chicago Volume.....	770.00
Baltimore Pamphlet.....	222.00

\$16,875.10*By expenses Baltimore meeting:*

Program and maps.....	\$ 383.59
English speaker and Darwin dinner....	1,064.00
Badges, clerks, &c.....	201.29
Secretaries' expenses and commutations...	1,050.91

2,699.79*By office expenses, including propaganda work:*

Postage.....	2,578.87
Extra clerical help.....	613.24
Circulars and blanks, &c.....	405.75
Typewriter and office supplies, expenses and telegrams.....	259.97

3,857.83*By salaries:*

Permanent Secretary, balance previous year.....	\$ 43.23
Permanent Secretary.....	1,500.00
Assistant Secretary.....	1,000.00

2,543.23*By miscellaneous disbursements:*

Overpaid dues returned, &c.....	\$ 42.00
---------------------------------	----------

42.00

\$26,017.95

By balance to new account.....

2,847.07

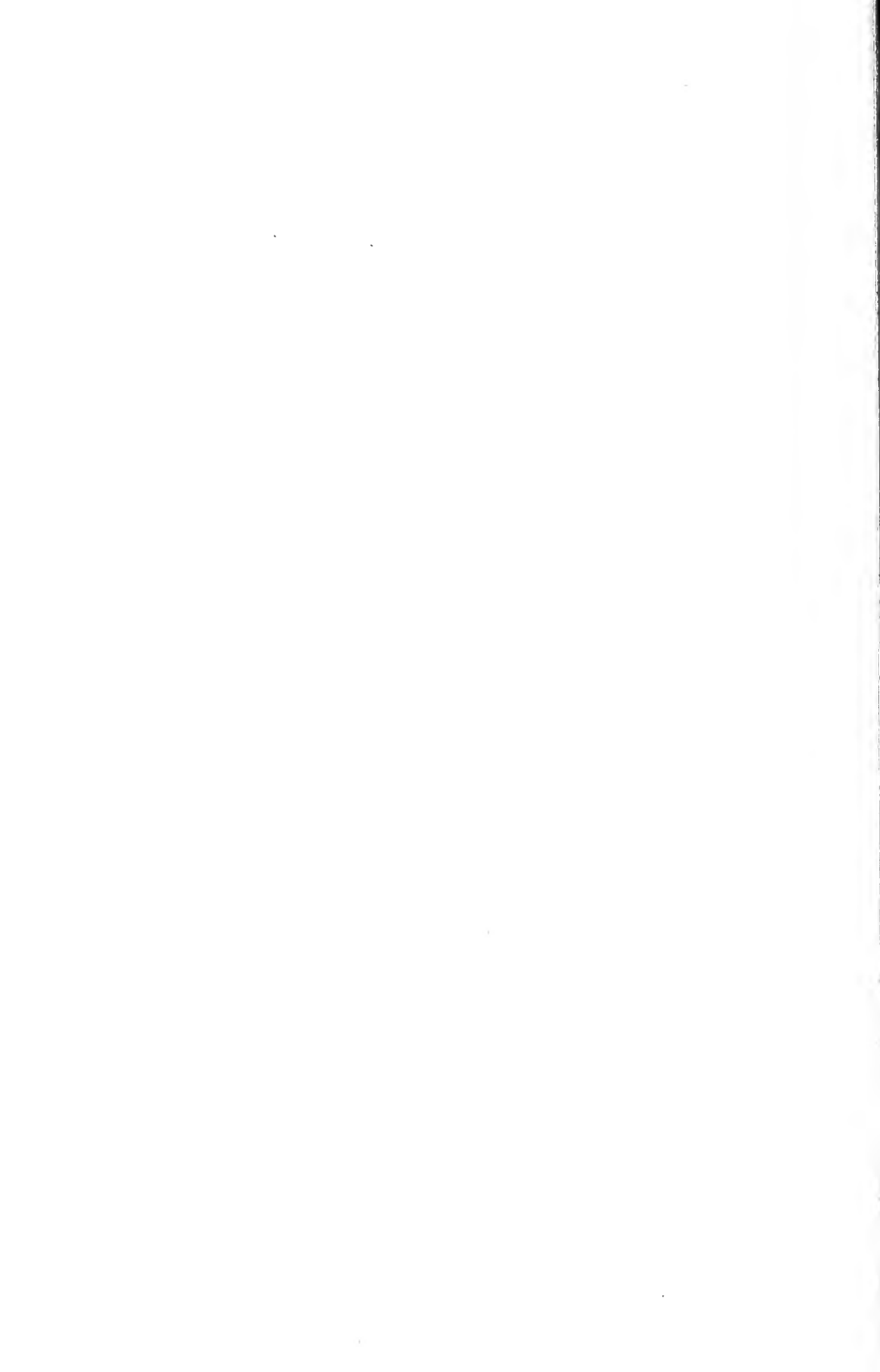
\$28,865.02



Index for Boston Meeting.

(For Index for Hanover Meeting, see page 353.)

(For Index for Baltimore Meeting, see page 483.)



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