

Swarthmore College



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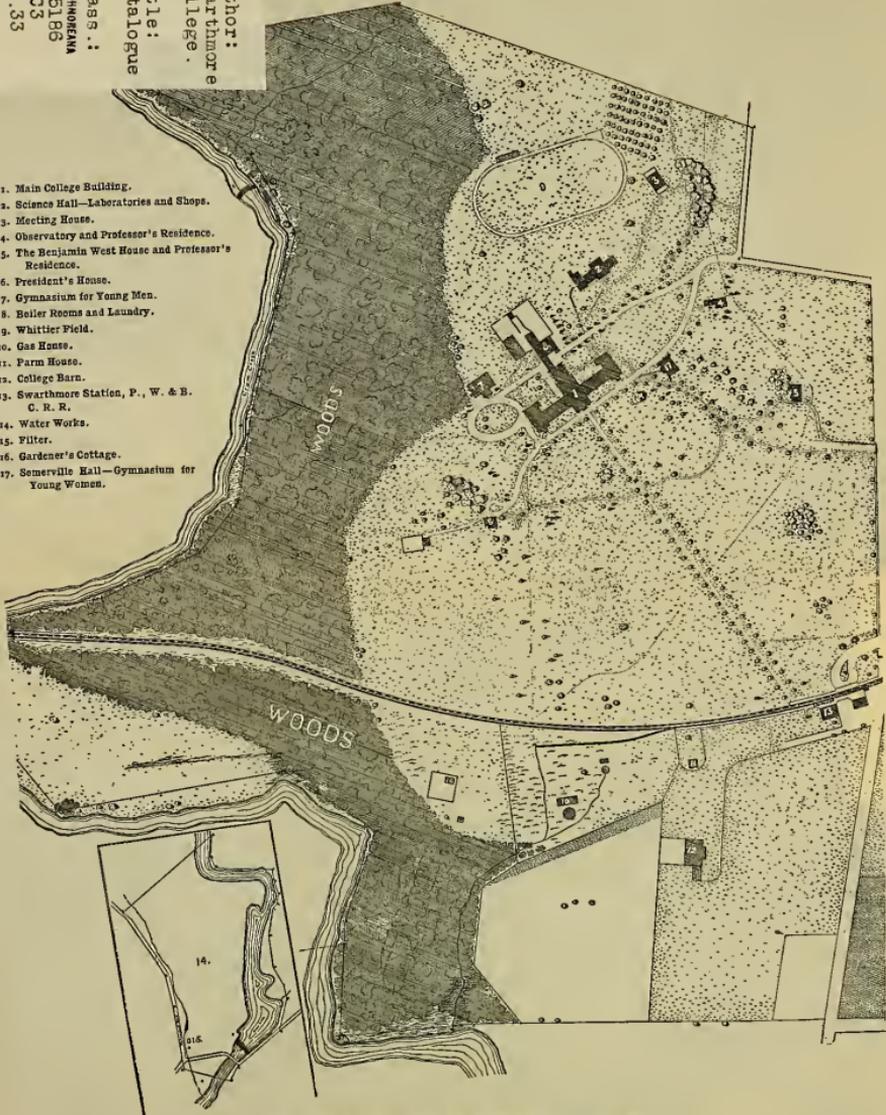
1901-1902

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CLASS. :
SWARTHMORE
185186
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Author:
Swarthmore
College.
Title:
Swarthmore
Catalogue

1. Main College Building.
2. Science Hall—Laboratories and Shops.
3. Meeting House.
4. Observatory and Professor's Residence.
5. The Benjamin West House and Professor's Residence.
6. President's House.
7. Gymnasium for Young Men.
8. Boiler Rooms and Laundry.
9. Whittier Field.
10. Gas House.
11. Farm House.
12. College Barn.
13. Swarthmore Station, P., W. & B. C. R. R.
14. Water Works.
15. Filter.
16. Gardener's Cottage.
17. Semerville Hall—Gymnasium for Young Women.



SWARTHMORE COLLEGE, BUILDINGS AND GROUNDS

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The Thirty-third
Annual Catalogue
OF
Swarthmore College

Swarthmore, Pa.

1901-1902

PHILADELPHIA
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1902

TABLE OF CONTENTS.

<p>CALENDAR OF THE COLLEGE YEAR 3</p> <p>THE CORPORATION..... 4 The Board of Managers... 4 Officers and Committees of the Board..... 6</p> <p>OFFICERS OF INSTRUCTION AND ADMINISTRATION 8</p> <p>THE HOUSEHOLD..... 9</p> <p>FACULTY COMMITTEES.....10</p> <p>REGISTER OF STUDENTS.....11</p> <p>FELLOWS AND SCHOLARS, 1901- 190218</p> <p>SWARTHMORE COLLEGE: Location and History....19 Buildings19 Religious Culture.....21 Social Life.....21 Physical Culture.....21 Students' Societies and Publications22 Libraries and Reading- Room23 The Museum.....24</p> <p>EXPENSES26</p> <p>FELLOWSHIPS AND SCHOLAR- SHIPS26</p> <p>REQUIREMENTS FOR ADMIS- SION29</p> <p>ADMISSION BY CERTIFICATE...31</p> <p>DEPARTMENTS OF INSTRU- TION: Biblical Literature.....33 Biology and Geology.....33 Chemistry35 Drawing and Painting....37 Engineering and the Me- chanic Arts.....38 English: English Literature.....42 World Literature.....43 Rhetoric and Composi- tion43</p>	<p>Elocution and Oratory...44 Oratorical Contests and Prizes44</p> <p>French45</p> <p>German46</p> <p>Greek48</p> <p>History and Political Econ- omy49</p> <p>Latin51</p> <p>Mathematics and Astron- omy52</p> <p>Pedagogy53</p> <p>Physical Training.....53</p> <p>Physics54</p> <p>Psychology and Philoso- phy55</p> <p>COURSES FOR THE BACHELOR'S DEGREE: Introductory Statement...56 List of Electives.....57 Irregular and Partial Courses57</p> <p>Preparatory Medical Course58</p> <p>The Course in Arts.....59</p> <p>The Course in Letters....60</p> <p>The Course in Science....61</p> <p>The Course in Engineer- ing62</p> <p>GRADUATION AND DEGREES: The Degree of Bachelor...63 The Degree of Master....63 The Engineering Degrees, 63</p> <p>HONORARY DEGREES CON- FERRED64</p> <p>GRADUATES65</p> <p>HOLDERS OF FELLOWSHIPS...83</p> <p>THE ALUMNI ASSOCIATION...84</p> <p>COMMITTEE ON TRUSTS, EN- DOWMENTS, AND SCHOL- ARSHIPS85</p>
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CALENDAR OF THE COLLEGE YEAR

1901-1902

- 1901, Ninth Month, 19th, Fifth-day, College year began.
- 1902, Second Month, 1st, Seventh-day, First semester ends.
- “ Second Month, 3d, Second-day, Second semester begins.
- “ Third Month, 11th, Third-day, Meeting of the Board of Managers.
- “ Third Month, 29th, Seventh-day, Spring recess begins.
- “ Fourth Month, 8th, Third-day, College work resumed, 8.30 A. M.
- “ Fifth Month, 19th, Second-day, Senior examinations begin.
- “ Fifth Month, 24th, Seventh-day, Senior examinations completed.
- “ Sixth Month, 2d, Second-day, Final examinations begin.
- “ Sixth Month, 6th, Sixth-day, } Examinations for admission.
- “ Sixth Month 7th, Seventh-day, }
- “ Sixth Month, 9th, Second-day, Meeting of the Board of Managers.
- “ Sixth Month, 9th, Second-day, Class-day exercises.
- “ Sixth Month, 10th, Third-day, COMMENCEMENT.
- “ Ninth Month, 16th, Third-day, Meeting of the Board of Managers.
- “ Ninth Month, 17th, Fourth-day, Examinations for admission.
- “ Ninth Month, 18th, Fifth-day, College work begins, 8.30 A. M.
- “ Twelfth Month, 1st, Second-day, Meeting of the Board of Managers.
- “ Twelfth Month, 2d, Third-day, *Annual Meeting of the Stockholders.*
- “ Twelfth Month, 2d, Third-day, Meeting of the Board of Managers.
- “ Twelfth Month, 20th, Seventh-day, Winter recess begins.
- 1903, First Month, 5th, Second-day, College work resumed 8.30 A. M.

OFFICERS OF THE CORPORATION

CLERKS

ROBERT M. JANNEY,

112 Drexel Building, Philadelphia.

ABBY W. MILLER,

1203 Delaware Avenue, Wilmington.

TREASURER

CHARLES M. BIDDLE,

513 Commerce Street, Philadelphia.

THE BOARD OF MANAGERS

Term expires Twelfth Month, 1902

ISAAC H. CLOTHIER,
Eighth & Market Sts., Phila.

FANNIE W. LOWTHORP,
Trenton, N. J.

HOWARD M. JENKINS,
P. O. Box 924, Philadelphia.

EDMUND WEBSTER,
1156 S. Broad St., Philadelphia.

CHARLES PANSON,
Swarthmore, Pa.

EMMA McILVAIN COOPER,
715 Cooper St., Camden, N. J.

ANNIE SHOEMAKER,
Swarthmore, Pa.

REBECCA C. LONGSTRETH,
Haverford, Pa.

Term expires Twelfth Month, 1903

JOSEPH WHARTON, P. O. Box 1332. Philadelphia.	WILLIAM M. JACKSON, 50 Beekman St., New York.
MARY WILLETS, Sea Girt. N. J.	RACHEL W. HILLBORN, Swarthmore, Pa.
LYDIA H. HALL, Swarthmore, Pa.	EDWARD MARTIN, M.D., 415 S. 15th St., Philadelphia.
MARY C. CLOTHIER, Wynnewood, Pa.	ALBERT A. MERRITT, 37 Columbus Ave., New York.

Term expires Twelfth Month, 1904

EDWARD H. OGDEN, 314 Vine St., Philadelphia.	EDWARD STABLER, JR., 6 South St., Baltimore, Md.
ELI M. LAMB, 1432 McCulloh St., Baltimore, Md.	HANNAH H. WOODNUTT, 1816 Arch St., Philadelphia.
EMMA C. BANCROFT, Wilmington, Del.	HOWARD W. LIPPINCOTT, 509 Real Estate Trust Building, Philadelphia.
SUSAN W. LIPPINCOTT, Cinnaminson, N. J.	MARY W. ALBERTSON, Westbury Station, N. Y.

Term expires Twelfth Month, 1905

JOHN T. WILLETS, 303 Pearl Street, New York.	JANE P. DOWNING, 1613 Race St., Philadelphia.
HOWARD COOPER JOHNSON, 709 Walnut St., Philadelphia.	ELIZABETH B. PASSMORE, Oxford, Pa.
DANIEL UNDERHILL, Jericho, L. I.	JOANNA W. LIPPINCOTT, Logan Station, Philadelphia.
EMMOR ROBERTS, Fellowship, N. J.	MARIANNA S. RAWSON, 226 E. 16th St., New York.

OFFICERS AND COMMITTEES OF THE BOARD OF MANAGERS

PRESIDENT

JOSEPH WHARTON.

SECRETARY

ABBY W. MILLER.

AUDITORS

ISAAC H. CLOTHIER,

JOHN T. WILLETS.

EXECUTIVE COMMITTEE

EMMOR ROBERTS,

JANE P. DOWNING,

ISAAC H. CLOTHIER,

SUSAN W. LIPPINCOTT,

HOWARD M. JENKINS,

EMMA McILVAIN COOPER,

EDMUND WEBSTER,

HANNAH H. WOODNUTT,

HOWARD W. LIPPINCOTT,

MARY C. CLOTHIER,

JOHN T. WILLETS,

ELIZABETH B. PASSMORE,

EDWARD MARTIN,

JOANNA W. LIPPINCOTT,

ROBERT M. JANNEY,

EMMA C. BANCROFT,

ABBY W. MILLER, *ex-officio*.

FINANCE COMMITTEE

ROBERT M. JANNEY,

EDWARD H. OGDEN,

CHARLES PAXSON.

INSTRUCTION COMMITTEE

ABBY W. MILLER,

RACHEL W. HILLBORN,

ANNIE SHOEMAKER,

EDWARD MARTIN,

MARY WILLETS,

MARIANNA S. RAWSON,

SUSAN W. LIPPINCOTT,

REBECCA C. LONGSTRETH,

LYDIA H. HALL,

HOWARD M. JENKINS,

HOWARD COOPER JOHNSON.

COMMITTEE ON BUILDINGS AND PROPERTY

EDMUND WEBSTER,	RACHEL W. HILLBORN,
EDWARD H. OGDEN,	HOWARD W. LIPPINCOTT,
EMMOR ROBERTS	ROBERT M. JANNEY,
JANE P. DOWNING,	JOHN T. WILLETS.

COMMITTEE ON MUSEUM AND LABORATORIES

MARY WILLETS,	EDWARD MARTIN,
ELI M. LAMB,	MARY W. ALBERTSON,
	DANIEL UNDERHILL.

COMMITTEE ON THE FRIENDS' HISTORICAL LIBRARY

LYDIA H. HALL,	ISAAC H. CLOTHIER,
EDWARD STABLER, JR.,	REBECCA C. LONGSTRETH,
	ALBERT A. MERRITT.

**COMMITTEE ON TRUSTS, ENDOWMENTS, AND
SCHOLARSHIPS**

EDMUND WEBSTER,	SUSAN W. LIPPINCOTT,
EDWARD H. OGDEN,	JOHN T. WILLETS,
EMMOR ROBERTS,	REBECCA C. LONGSTRETH, <i>Sec'y.</i>

TRUSTEES OF ENDOWED PROFESSORSHIPS

ISAAC H. CLOTHIER,	EDWARD H. OGDEN,
	EMMOR ROBERTS.

COMMITTEE ON THE LIBRARY

LYDIA H. HALL,	CHARLES PAXSON,
RACHEL W. HILLBORN,	JOANNA W. LIPPINCOTT,
	ALBERT A. MERRITT.

OFFICERS OF INSTRUCTION AND ADMINISTRATION

WILLIAM W. BIRDSALL, A.M.,

President.

ELIZABETH POWELL BOND, A.M.,

Dean.

EDWARD H. MAGILL, A.M., LL.D.,

Emeritus Professor of the French Language and Literature, and
Lecturer on French Literature.

ARTHUR BEARDSLEY, C.E., PH.D.,

Emeritus Professor of Engineering, and Librarian of the Friends'
Historical Library.

WILLIAM HYDE APPLETON, A.M., LL.B., PH.D..

Professor of Greek and of Early English.

SUSAN J. CUNNINGHAM, Sc.D.,

Edward H. Magill Professor of Mathematics and Astronomy.

SPENCER TROTTER, M.D.,

Professor of Biology and Geology.

GEORGE A. HOADLEY, C.E., A.M.,

Professor of Physics.

FERRIS W. PRICE, A.M.,

Isaac H. Clothier Professor of the Latin Language and
Literature.

WILLIAM I. HULL, PH.D.,

Joseph Wharton Professor of History and Political Economy.

WILBUR M. STINE, PH.D.,

I. V. Williamson Professor of Engineering.

JESSE H. HOLMES, PH.D.,

Professor of History and Biblical Literature.

MYRTIE E. FURMAN, M.O.,

Assistant Professor in charge of Elocution.

JOHN RUSSELL HAYES, A.B., LL.B.,

Assistant Professor of English.

- BENJAMIN F. BATTIN, PH.D.,
Assistant Professor of German.
- GREGORY PAUL BAXTER, PH.D.,
Assistant Professor of Chemistry.
- ISABELLE BRONK, PH.D.,
Assistant Professor of the French Language and Literature.
- BEATRICE MAGILL,
Lecturer on the History of Painting, and Director of the Studio.
- J. PAUL J. WILLIAMS, M.S.,
Assistant in Engineering.
- MARY CORWIN LANE, A.B.,
Assistant in Greek and Latin.
- GUSTAV A. KLEENE, PH.D.,
Instructor in Economics and Social Science.
- THOMAS W. HESLIN,
Instructor in the Shops.
- MARY V. MITCHELL GREEN, M.D.,
Director of Physical Training for the Women Students.
- W. SINNOTT CUMMINGS, M.D.,
Director of Physical Training for the Men Students.
- SARAH BROOKE FARQUHAR,
Instructor in the Department of Physical Training.
- SARAH M. NOWELL,
Librarian.
- ALBERT COOK MYERS, M.L.,
Registrar and Secretary to the President.
- JAMES D. HULL,
Superintendent.

THE HOUSEHOLD

- | | |
|---|--|
| SARAH D. COALE,
Matron of West Wing. | ELLA MICHENER,
Matron of East Wing. |
| ELLEN ROBERTS,
Director of Laundry. | CAROLINE A. LUKENS,
Matron of Central Building. |
| MARY R. SATTERTHWAITE,
Housekeeper. | |

OFFICERS AND STANDING COMMITTEES OF THE FACULTY

President: WM. W. BIRDSALL, *ex officio*.

Secretary: Professor J. RUSSELL HAYES.

Library: Professors APPLETON, HAYES, and STINE.

Diplomas and Commencement: Professors TROTTER and PRICE.

Students' Societies: Professors CUNNINGHAM and HOADLEY.

College Publications: Professors HAYES, STINE, and BEATRICE
MAGILL.

Receptions: The President and the Dean.

Entrance Examinations: Professor PRICE and the Registrar.

Public Lectures: Professors APPLETON and HOLMES.

Preparatory Schools: Professors MAGILL, CUNNINGHAM, and
PRICE.

Catalogue: Professors HULL and STINE.

Athletics: Professors HOADLEY and TROTTER.

Programme of Class-work: The President and the Registrar.

Advisers for Students in Arts: Professors PRICE and APPLETON.

Advisers for Students in Letters: Professors HULL and HAYES.

Advisers for Students in Science: Professors HOADLEY and
TROTTER.

Adviser for Students in Engineering: Professor STINE.

STUDENTS

SENIOR CLASS

Name	Course	Residence
M. IDA ALLEY.....	<i>Science</i>	Lagrangeville, N. Y.
ELIZABETH N. BAKER.....	<i>Letters</i>	Coatesville.
S. ROSCOE BATEMAN.....	<i>Science</i>	Grenloch, N. J.
ETHEL BEARDSLEY.....	<i>Arts</i>	Swarthmore.
EDITH COALE.....	<i>Letters</i>	Riverton, N. J.
EDITH H. COOLEY.....	<i>Arts</i>	Plainfield, N. J.
CHARLES C. CORSON.....	<i>Science</i>	Plymouth Meeting.
LINA B. DILLISTIN.....	<i>Letters</i>	Paterson, N. J.
HELEN MCILVAIN EASTWICK.....	<i>Letters</i>	Philadelphia.
EDITH G. ELMORE.....	<i>Letters</i>	Brooklyn, N. Y.
REBECCA M. ELY.....	<i>Letters</i>	Philadelphia.
MARION FARQUHAR.....	<i>Letters</i>	Sandy Spring, Md.
LEWIS FUSSELL.....	<i>Science</i>	Media.
ERNEST L. GREEN.....	<i>Arts</i>	Media.
GERTRUDE P. GRISCOM.....	<i>Letters</i>	Pottsville.
J. MILTON GRISCOM.....	<i>Science</i>	Salem, N. J.
EMMA F. HAMILTON.....	<i>Letters</i>	Gladwyne.
EDSON S. HARRIS.....	<i>Engineering</i> ,	Philadelphia.
MARY B. HAWKE.....	<i>Arts</i>	Piedmont, Ala.
AMELIA E. HIMES.....	<i>Letters</i>	New Oxford.
JOHN HOWARD HOPKINS....	<i>Engineering</i> ,	Ruxton, Md.
ELSIE H. KOENIG.....	<i>Letters</i>	Lewistown.
STELLA L. KOENIG.....	<i>Letters</i>	Lewistown.
MARGARETTA W. LAMB.....	<i>Letters</i>	Baltimore, Md.
ALICE R. LINVILL.....	<i>Letters</i>	Swarthmore.
MARION LUKENS.....	<i>Letters</i>	Swarthmore.
NATHAN H. MANNAKEE.....	<i>Science</i>	Washington, D. C.
CYRUS D. MARTER.....	<i>Letters</i>	Camden, N. J.
T. STOCKTON MATTHEWS....	<i>Science</i>	Baltimore, Md.
ROY McVAUGH.....	<i>Letters</i>	Hockessin, Del.

Name	Course	Residence
ALLEN R. MITCHELL, JR.	<i>Letters</i>	Langhorne.
MARGARET M. PATTERSON	<i>Science</i>	Philadelphia.
ANNA R. PAXSON	<i>Letters</i>	Langhorne.
ROBERT L. PEARSON	<i>Engineering</i> ,	Fern Rock.
FRANCES PRESTON	<i>Letters</i>	Tayloria.
ELLIOTT RICHARDSON	<i>Engineering</i> ,	Torresdale.
HELEN W. SPEAKMAN	<i>Arts</i>	Wilmington, Del.
ALICE P. TABOR	<i>Letters</i>	Rochester, N. Y.
ERNEST J. TAYLOR	<i>Engineering</i> ,	Nuttallburg, W. Va.
MARGARET H. TAYLOR	<i>Letters</i>	Woodstown, N. J.
ELMOR J. TEMPLE	<i>Engineering</i> ,	Lionville.
CLARA M. THOMAS	<i>Arts</i>	West Chester.
WILLIAM W. TURNER	<i>Letters</i>	Betterton, Md.
EDITH L. VERLENDEN	<i>Letters</i>	Darby.
ROBERT H. WALKER	<i>Science</i>	Baltimore, Md.
ANNA W. WATERS	<i>Arts</i>	Stroudsburg.
MAUDE L. WATTERS	<i>Arts</i>	Media.
ALBERT M. WILLIAMS	<i>Engineering</i> ,	Holicong.
GEORGE S. WORTH ¹	<i>Engineering</i> ,	Coatesville.
IDA WRIGHT	<i>Letters</i>	Brooklyn, N. Y.

JUNIOR CLASS

Name	Course	Residence
BYRON BEANS	<i>Letters</i>	Hartsville.
WALKER M. BOND	<i>Engineering</i> ,	Winchester, Va.
ELIZABETH M. BOOTH	<i>Letters</i>	Chester.
FREDERIC C. BRINTON, JR.	<i>Letters</i>	West Chester.
CAROLINE CLOTHIER	<i>Letters</i>	Wynnewood.
EDMUND COCKS	<i>Science</i>	Cornwall, N. Y.
J. HORACE ERVIEN	<i>Engineering</i> ,	Ogontz.
HOWARD S. EVANS	<i>Engineering</i> ,	Yeadon.
ALBERT P. HALL, JR.	<i>Engineering</i> ,	West Chester.
WILLIAM E. HANNUM	<i>Science</i>	Ward.
ANNIE S. HAWKE	<i>Letters</i>	Piedmont, Ala.

¹ Is taking all the work required for the bachelor's degree, but has not yet (First Month, 1902) fulfilled the requirements for formal admission to the Senior Class.

Name	Course	Residence
MABEL E. HOLLINSHEAD.....	<i>Science</i>	Moorestown, N. J.
ELIZABETH W. JACKSON.....	<i>Letters</i>	Bartville.
CARRIE B. KILGORE.....	<i>Arts</i>	Philadelphia.
FANNIE B. KILGORE.....	<i>Arts</i>	Philadelphia.
ROBERT E. LAMB.....	<i>Engineering</i> ,	Baltimore, Md.
HELEN E. LEASE.....	<i>Letters</i>	Salem, Ohio.
EDWARD R. MEREDITH.....	<i>Engineering</i> ,	Calcium.
CLARA PRICE NEWPORT.....	<i>Arts</i>	Swarthmore.
NORMAN S. PASSMORE.....	<i>Arts</i>	Oxford.
MARION V. PEIRCE.....	<i>Arts</i>	West Chester, Pa.
WILLIAM E. ROBERTS.....	<i>Letters</i>	New Hope.
ANNIE ROSS.....	<i>Letters</i>	Flushing, N. Y.
NORA L. STABLER.....	<i>Letters</i>	Sandy Spring, Md.
HELEN D. SOUDER.....	<i>Letters</i>	Woodstown, N. J.
SAMUEL T. STEWART.....	<i>Arts</i>	Cleveland, Ohio.
ELIZABETH SUTTON.....	<i>Letters</i>	New York, N. Y.
J. HIBBERD TAYLOR.....	<i>Letters</i>	West Chester.
LOUIS E. THOMPSON.....	<i>Letters</i>	Wycombe.
SARAH E. TRACY.....	<i>Letters</i>	Cornish, N. H.
NORMAN D. VERNON.....	<i>Engineering</i> ,	Pomeroy.
LULU VON RAMDOHR.....	<i>Letters</i>	New York, N. Y.
ASA P. WAY.....	<i>Engineering</i> ,	St. Thomas, Ont., Can.
PENNOCK M. WAY.....	<i>Science</i>	Fairville.

SOPHOMORE CLASS

Name	Course	Residence
ELVA L. ASH.....	<i>Letters</i>	Coatesville.
EDWARD M. BASSETT.....	<i>Engineering</i> ,	Salem, N. J.
M. LOUISE BARTLETT.....	<i>Letters</i>	Baltimore, Md.
THOMAS C. BELL.....	<i>Engineering</i> ,	Bayside, N. Y.
ALVIN C. BIRDSALL.....	<i>Letters</i>	Swarthmore.
CHARLOTTE R. BOGERT.....	<i>Arts</i>	New York, N. Y.
FLOYD H. BRADLEY.....	<i>Letters</i>	Camden, N. J.
BLANCHIE E. BROWN.....	<i>Arts</i>	Cornwall, N. Y.
ARTHUR BROSIUS.....	<i>Science</i>	Avondale.
MARTHA K. BUYERS.....	<i>Letters</i>	Honey Brook.
MARGUERITE CAMPION.....	<i>Arts</i>	Swarthmore.

Name	Course	Residence
HELEN M. CARRE.....	<i>Letters</i>	Philadelphia.
GERTRUDE F. CHANDLER....	<i>Letters</i>	Bethlehem.
ANNA L. CURTIS.....	<i>Science</i>	New York, N. Y.
MARGARET S. DARLINGTON...	<i>Letters</i>	Concordia, Kan.
HELEN N. EMLEY.....	<i>Letters</i>	Philadelphia.
LOUISE C. FAHNESTOCK.....	<i>Letters</i>	Harrisburg.
DOROTHY F. GREEN.....	<i>Arts</i>	Bartow, Fla.
EDGAR T. GREENE.....	<i>Science</i>	Philadelphia.
MARY A. GUTELIUS.....	<i>Arts</i>	Swarthmore.
MAURICE T. HANSELL.....	<i>Letters</i>	Bougher, N. J.
ANNE W. HOLME.....	<i>Letters</i>	Baltimore, Md.
HALLIE G. HULBURT.....	<i>Letters</i>	Swarthmore.
HALLIDAY R. JACKSON.....	<i>Arts</i>	West Chester.
EMILY JANNEY.....	<i>Letters</i>	Philadelphia.
HERBERT E. JENKS.....	<i>Engineering</i>	Byberry.
FRANK H. LEONARD.....	<i>Engineering,</i>	Lansdowne.
M. ELMA LEWIS.....	<i>Letters</i>	Baltimore, Md.
BRITTAIN E. LUKENS.....	<i>Engineering,</i>	Philadelphia.
MILLO M. MCCAIN.....	<i>Letters</i>	Philadelphia.
ALICE P. MERRIMAN.....	<i>Letters</i>	South Bethlehem.
ANNA J. E. NICHOLS.....	<i>Letters</i>	Wilmington, Del.
MARY A. PARRY.....	<i>Letters</i>	Jenkintown.
MARRIOTT PRICE.....	<i>Engineering,</i>	Baltimore, Md.
MABEL PRYOR.....	<i>Letters</i>	Langhorne.
MAUDE E. RICE.....	<i>Arts</i>	Newtown.
GEORGE SATTERTHWAITE....	<i>Engineering,</i>	Swarthmore.
AGNES H. SIBBALD.....	<i>Letters</i>	Fox Chase.
ANNA L. SMEDLEY.....	<i>Letters</i>	Willistown Inn.
ALICE R. SULLIVAN.....	<i>Arts</i>	Moorestown, N. J.
C. MARSHALL TAYLOR.....	<i>Science</i>	West Chester.
WILLIAM J. L. WALKER....	<i>Letters</i>	Gap.
CATHARINE E. WAY.....	<i>Science</i>	Philadelphia.
EDMUND R. WEEK, JR.....	<i>Engineering,</i>	Alexandria, Ind.
EDITH M. WEST.....	<i>Letters</i>	Chester.
ALDUS WILBUR.....	<i>Letters</i>	New York, N. Y.
WILLIAM W. WILSON.....	<i>Engineering,</i>	Bridgeport.

Name	Course	Residence
ANNA K. WOLFF.....	<i>Letters</i>	Philadelphia.
SARAH E. WOOD.....	<i>Letters</i>	Linwood.

FRESHMAN CLASS

Name	Course	Residence
CAROLINE B. ANGELL.....	<i>Letters</i>	Haworth, N. J.
ARCHIE D. ARNOLD.....	<i>Engineering</i> ,	Pawling, N. Y.
HELEN BACHRACH.....	<i>Letters</i>	Decatur, Ill.
JAMES R. BALDRIDGE.....	<i>Engineering</i> ,	Charleston, W. Va.
ABBIE L. BONSALE.....	<i>Arts</i>	Salem, Ohio.
S. DEAN CALDWELL, JR.,....	<i>Engineering</i> ,	Bethesda, Md.
MARGARET CRAIG.....	<i>Science</i>	Philadelphia.
FRANK C. EVES.....	<i>Letters</i>	Millville.
LYDIA W. FOULKE.....	<i>Letters</i>	West Chester.
ESTHER C. GALLAGHER.....	<i>Letters</i>	Cincinnati, Ohio.
ESTHER C. GARWOOD.....	<i>Arts</i>	Salem, Ohio.
F. BRAMWELL GEDDES.....	<i>Arts</i>	Swarthmore.
HAMILTON H. GILKYSON, JR.,	<i>Science</i>	Phoenixville.
FREDERIC E. GRIEST.....	<i>Engineering</i> ,	Flora Dale.
MAURICE E. GRIEST.....	<i>Engineering</i> ,	Guernsey.
ELIZABETH HALL.....	<i>Science</i>	Media.
HELEN HEED.....	<i>Letters</i>	West Chester.
PHILIP M. HICKS.....	<i>Science</i>	Avondale.
ALBERT L. HOOD.....	<i>Arts</i>	West Chester.
PERCY M. HOOPES.....	<i>Science</i>	West Chester.
ELSIE P. HOYT.....	<i>Letters</i>	Seven Oaks, Fla.
RALPH G. JACKSON.....	<i>Engineering</i> ,	Nine Points.
HARRY W. KNIGHT, JR.....	<i>Engineering</i> ,	Harrisburg.
MARGARET D. LEIPER.....	<i>Arts</i>	Wallingford.
WILLIAM H. LINTON.....	<i>Science</i>	Moorestown, N. J.
JAMES J. LIPPINCOTT.....	<i>Engineering</i> ,	Philadelphia.
LIDIE W. MCFARLAND.....	<i>Letters</i>	Conshohocken.
T. BAYNE MARSHALL.....	<i>Arts</i>	Allegheny.
LYNNE L. MERRITT.....	<i>Arts</i>	Swarthmore.
HELEN E. MILLER.....	<i>Letters</i>	Pottsville.
SERENA H. MILLER.....	<i>Arts</i>	Germantown.
MARIE DE MONTALVO.....	<i>Arts</i>	New York, N. Y.

Name	Course	Residence
HAROLD W. MOWERY.....	<i>Arts</i>	Marietta.
EDITH COOK MYERS.....	<i>Letters</i>	Kennett Square.
ALICE PAUL.....	<i>Science</i>	Moorestown, N. J.
EDWARD G. POOLE.....	<i>Engineering</i> ,	Wilmington, Del.
EDITH N. POWELL.....	<i>Letters</i>	Trappe, Md.
HENRY F. PRICE.....	<i>Arts</i>	Swarthmore.
ALICE M. RIDINGS.....	<i>Letters</i>	Lansdowne.
EDMUND G. ROBINSON.....	<i>Science</i>	Wilmington, Del.
LOUIS N. ROBINSON.....	<i>Arts</i>	Tunkhannock.
ESTHER L. ROGERS.....	<i>Letters</i>	Pendleton, Ind.
W. WILLARD ROOKS.....	<i>Letters</i>	Fruitland Park, Fla.
PHEBE E. SCHEIBLEY.....	<i>Letters</i>	Duncannon.
ROBERT P. SENDERFER....	<i>Letters</i>	Philadelphia.
AGNES M. SMEDLEY.....	<i>Letters</i>	Denver, Col.
IDA M. SMITH.....	<i>Science</i>	West Chester.
W. DULTY SMITH.....	<i>Arts</i>	Rutledge.
FREDERICK B. TERRELL.....	<i>Engineering</i> ,	San Antonio, Texas.
HERBERT S. THATCHER.....	<i>Engineering</i> ,	Wilmington, Del.
J. ARCHER TURNER.....	<i>Engineering</i> ,	Betterton, Md.
ELSA S. VON RAMDOHR....	<i>Letters</i>	New York, N. Y.
OLGA V-DEE.....	<i>Science</i>	Media.
EDITH WILSON.....	<i>Letters</i>	Selma, Ohio.

STUDENTS IN IRREGULAR AND PARTIAL COURSES

(With the class to which their work most nearly corresponds. See p. 57.)

Name	Course	Residence
JESSIE BARTLETT GINN.	<i>Senior Letters</i>	Swarthmore.
DEBORAH G. THOMAS.	<i>Senior Letters</i>	Philadelphia.
MARGARET GLEIM....	<i>Junior Science</i>	Lansdowne.
FRED. A. JOHNSON....	<i>Junior Letters</i>	Emporium.
NETTIE S. BLUM.....	<i>Sophomore Letters</i>	Greenville, Miss.
EDITH DIXON HOPKINS	<i>Sophomore Letters</i>	Los Angeles, Cal.
GEORGE V. KNIPE....	<i>Sophomore Science</i>	New York, N. Y.
LUCILE ABRAMS.....	<i>Freshman Letters</i>	Butler.
SAMUEL L. BORTON....	<i>Freshman Letters</i>	Woodstown, N. J.
HOWARD H. CARPENTER	<i>Freshman Engineering</i> ,	Denver, Col.

Name	Course	Residence
ETHEL B. CLOSE.....	<i>Freshman Science</i>	New York, N. Y.
ARTHUR D. CURTISS..	<i>Freshman Engineering</i> ,	Woodside, Md.
HAROLD I. COMLY....	<i>Freshman Engineering</i> ,	Horsham.
MERIAN H. DICKINSON	<i>Freshman Engineering</i> ,	Atlanta, Ga.
DEXTER W. DRAPER..	<i>Freshman Letters</i>	Boston, Mass.
EVELYN I. HADLEY...	<i>Freshman Letters</i>	Santa Barbara, Cal.
A. ESTELLA JAMES....	<i>Freshman Letters</i>	West Chester.
MILTON D. KIRK.....	<i>Freshman Engineering</i> ,	Curwensville.
WILLIAM T. SMITH...	<i>Freshman Letters</i>	Boston, Mass.
EVELYN R. VISKNISKKI	<i>Freshman Letters</i>	Carmi, Ill.

SUMMARY BY CLASSES

Seniors	50
Juniors	34
Sophomores	49
Freshmen	54
Students in Irregular and Partial Courses.....	20
Total.....	207

SUMMARY BY STATES

Pennsylvania	119
New York.....	18
New Jersey.....	17
Maryland	16
Delaware	6
Ohio	6
Florida	3
Alabama	2
California	2
Colorado	2
Illinois	2
Indiana	2
Massachusetts	2
West Virginia.....	2
Canada	1
Carried forward.....	200

Brought forward.....	200
District of Columbia.....	1
Georgia.....	1
Kansas.....	1
Mississippi.....	1
New Hampshire.....	1
Texas.....	1
Virginia.....	1
Total.....	207

FELLOWS AND SCHOLARS, 1901-1902

Joshua Lippincott Fellow: MARY GREY LEIPER, B.L., 1899; student in the University of Berlin.

Lucretia Mott Fellow: L. WINIFRED ROGERS, A.B., 1901; student in the University of Berlin.

Deborah Fisher Wharton Scholar: MARGARET H. TAYLOR, 1902.

Samuel J. Underhill Scholar: HELEN E. LEASE, 1903.

Anson Lapham Scholar: MARY A. GUTELIUS, 1904.

Westbury Quarterly Meeting Scholar: ALDUS WILBUR, 1904.

Rebecca M. Atkinson Scholar: MABEL PRYOR, 1903.

Barclay G. Atkinson Scholar: WILLIAM ELY ROBERTS, 1903.

Annie Shoemaker Scholar: HELEN M. CARRÉ, 1904.

I. V. Williamson Scholars:

MAURICE J. HANSELL, Friends' Central School, Philadelphia.

PHILIP M. HICKS, Martin Academy, Kennett Square, Pa.

LYNNE L. MERRITT, Swarthmore Public High School.

ALICE PAUL, Friends' School, Moorestown, N. J.

EDMUND S. ROBINSON, Friends' School, Wilmington, Del.

J. ARCHER TURNER, Abington Friends' School, Jenkintown, Pa.

ELSA S. VON RAMDOHR, Friends' Seminary, New York.

M. ELMA LEWIS, Friends' School, Baltimore, Md.

MAURICE E. GRIEST, George School, Pa.

Friends' Seminary Association Scholar: MARIE DE MONTALVO, Friends' Seminary, New York.

SWARTHMORE COLLEGE

LOCATION AND HISTORY

The Borough of Swarthmore is situated southwest of Philadelphia on the Central Division of the Philadelphia, Wilmington and Baltimore Railway. It is eleven miles distant from Broad Street Station, from which it is accessible by frequent trains; it is also reached from Philadelphia by two trolley lines.

The College buildings and the campus occupy a commanding position. The view includes many miles of the Delaware River, whose nearest point is about four miles distant. The College property comprises over two hundred acres of land, including a large tract of woodland and the beautiful rocky valley of Crum Creek.

The College was founded in 1864 through the efforts of members of the Religious Society of Friends, and for the purpose of securing to the youth of the Society an opportunity for higher educational training under the guarded supervision and care of those of their own religious faith. Other persons are admitted upon the same terms as Friends, and nothing of a sectarian character appears in the instruction or in the management of the College.

The intention of its founders was to make the promotion of Christian character the first consideration, and to provide opportunities for liberal culture while maintaining a high standard of scholarship. These aims have been faithfully observed in the administration of the institution.

BUILDINGS

The Main College Building, 348 feet in length, is a massive stone structure, the central portion of which is separated from the two wings by fire-proof compartments. The central building is five stories in height, and with an extension at the rear provides for assembly room, lecture rooms, museum, library, reading room, parlors, dining hall, etc. The wings are four stories high. The ground floors are devoted to lecture and recitation rooms;

the remaining floors in the east wing contain the dormitories of the young women, and in the west wing those of the young men. The Dean and several instructors reside in the building.

Science Hall is a two-story stone building with basement, 162 by 64 feet, devoted to the departments of Chemistry, Physics, and Engineering. It contains, besides lecture and recitation rooms, electrical, physical, engineering, and chemical laboratories; machine shop, and draughting rooms; foundry, forge, and wood-working rooms; engine and boiler rooms. All departments are well equipped, and new apparatus and machinery are added as occasion demands.

The Astronomical Observatory is especially arranged for purposes of instruction, and contains an equipment suitable both for class work and the prosecution of research. This includes a transit of three-inch aperture, an equatorial telescope of six-inch aperture, with micrometer and spectroscope attachments; a chronograph and chronometer, mean-time and sidereal clocks, and a reference library. Connected with the Observatory is the local Signal Service Station of the State Weather Bureau, fully provided with the necessary meteorological apparatus. The latest addition to the building accommodates a Seismograph of the most approved construction, which records by photographic process any vibration of the crust of the earth.

Other buildings upon the campus are the Meeting-house, the President's House, the Benjamin West House (birthplace of Benjamin West, erected in 1724, now the residence of the Professor of Greek), the house of the Professor of Astronomy, the gymnasium for young women (Somerville Hall), the gymnasium for young men, the necessary farm buildings, etc.

The Main Building, Science Hall, and the two gymnasiums are heated by steam from a central plant. A new heating system for the Main Building was recently installed; it consists of two 72-inch fans at the extreme ends of the building, which force the air over coils of steam pipe and through conduits accurately graduated in size, to the various rooms, thus insuring proper heat and ventilation.

RELIGIOUS CULTURE

The daily sessions of the College are opened by a general assembling of students and instructors for the reading of the Bible, or for other suitable exercises, preceded and followed by a period of silence. The students attend Meeting on First-day mornings, with the instructors, members of the household, and Friends of the neighborhood. By these means, and particularly by individual influence, and by the constant effort to maintain in the institution a spirit in harmony with the purpose of its founders, it is believed that a proper care is exercised to mould the characters of the students in conformity to Christian standards.

SOCIAL LIFE

Swarthmore, as a co-educational institution, undertakes to provide college life in a home setting; to supply an atmosphere in which manly and womanly character may develop naturally and completely. It provides that freedom which places upon each individual the responsibility of self-control, demanding the right exercise of his judgment, while making provision for the correction of errors, supplementing his judgment and will, when necessary, by the wise direction of those in whom his confidence may be justly placed. The students meet in the dining-hall as in their homes, and for a social hour in the reception parlor before evening work begins. There are other social occasions in the class receptions that occur during the year, and the more public College receptions to which friends of the institution are invited. This intercourse of the students is under the care of the Dean and her assistants, and it is the aim of the College to make it a means of social culture.

PHYSICAL CULTURE

The Gymnasium for Young Men, erected in 1899, is supplied with a new and complete outfit of apparatus after the Sargent System, and affords facilities for the required class and individual work, as well as for various in-door games. The Gymnasium for Young Women was erected through the efforts of the Somerville

Literary Society, and bears its name. It is furnished with apparatus adapted to the Swedish System. A statement of methods and requirements in the department of Physical Training will be found on page 53.

The extensive and beautiful grounds invite to out-door exercise, which is encouraged in every reasonable way. Whittier Field, the athletic ground for young men, provides a quarter-mile cinder track, a well-graded field for athletic sports and seats for spectators. Upon the campus are facilities for tennis, golf, basket-ball, and other out-door recreations for both sexes. Cross-country running, bicycle riding, and skating on Crum Creek are favorite forms of exercise.

STUDENTS' SOCIETIES AND PUBLICATIONS

Three literary societies are maintained by the students: the *Delphic* and the *Eunomian* by the young men, the *Somerville* by the young women. Regular meetings are held for literary exercises, which afford opportunity to acquire skill in parliamentary practice and in debate. They are regarded as valuable auxiliaries in the work of the College. Each society has, under the management of its own members, but accessible to all students, a library and a reading room containing periodicals and daily papers. The total number of books in these libraries is nearly four thousand.

The *Joseph Leidy Scientific Society* has for its object to keep in touch with the results of modern investigation in the four branches of Physical Science and in Engineering. At its meetings, held monthly, announcements of recent discoveries are made by the various instructors, and their meaning and importance are briefly discussed. Papers are also prepared and read by the students who are members.

The *Swarthmore Audubon Club* is designed to promote interest in the study and protection of our native birds. The use of the camera in securing good pictures of live birds and their nests is a very desirable aid in the pursuit of the study. The region about Swarthmore, especially the wooded ravine through which Crum Creek flows, affords unusual opportunities for observation.

In a walk of eight miles along this stream fifty-eight different varieties of birds have been noted, most of them being species nesting in the locality.

The *French Club* holds weekly meetings and is open to all students in the French Department after the middle of the first year. Its object is to afford increased opportunities for acquiring a practical knowledge of the French language.

The *Deutscher Verein* holds weekly sessions for the purpose of affording its members a greater ease and facility in expressing themselves in idiomatic German. Students are thus brought into more positive acquaintance with German customs, amusements, music, and literature.

The *Swarthmore Young Friends' Association* meets monthly in the College; it is open to students, members of the Faculty, and others interested in the testimonies and activities of the Society of Friends.

The *Athletic Association* is an organization of the young men for the encouragement of physical culture and athletic sports.

The *Girls' Athletic Club* is a similar organization of the young women.

Two periodicals are published by the students under the supervision of the Faculty. The *Phoenix*, a semi-monthly, is devoted to the interests of the College community and of the Alumni; the *Halcyon* is published annually by the Junior Class.

LIBRARIES AND READING ROOM

The *Libraries* of the College collectively contain 20,950 bound volumes, as follows:

The General Library.....	14,600
Literary Societies' Libraries.....	3,850
Friends' Historical Library.....	2,500

The Edgar Allen Brown Fund, established by his family in memory of Edgar Allen Brown, of the Class of 1890, and the Alumni Fund, are at present the chief sources of income for increasing the collection in the General Library.

Friends' Historical Library, founded by the late Anson Lapham, of Skaneateles, N. Y., contains a valuable collection of Friends' books, photographs of representative Friends, and manuscripts relating to the Society and its history, and upon application to the Librarian, is accessible to all persons interested in the doctrines and history of Friends. This collection is stored in a fire-proof apartment, and it is hoped that Friends and others will deem it a secure place in which to deposit books and other material in their possession which may be of interest in connection with the history of the Society. Such contributions are solicited, and should be addressed to Friends' Historical Library, or to ARTHUR BEARDSLEY, *Librarian*, Swarthmore, Pa.

The Reading Room is supplied with reference books, the leading literary, scientific, and technical journals, and the principal newspapers.

Besides the above, the great collections of books in the Philadelphia Library, the Mercantile Library, the Free Library of Philadelphia, and the University of Pennsylvania, as well as those in the special and technical libraries of the city, are open to the use of students under proper regulations.

THE MUSEUM

The Museum of the College is strictly an educational collection, and the specimens from its cases are in constant use in the lecture room and laboratory. It is growing steadily, and always in the direction of rendering more perfect the means of illustrating the different departments of Physical Science.

It includes the following collections:

1. The *Joseph Leidy Collection of Minerals*, the result of thirty years' discriminating collection by its founder, consists of exceedingly choice cabinet specimens of minerals, characteristic rocks and ores, and models of the various systems of crystallization.

2. The *Collection Illustrating Comparative Osteology* consists of a large series of partial and complete skeletons, prepared at Prof. Henry Ward's Natural History Establishment in Rochester, N. Y., and illustrates the structure and framework of vertebrates.

3. The *Wilcox and Farnham Collection of Birds* comprises

stuffed specimens of native and foreign birds. Nearly all the species visiting this State are represented.

4. The *Frederick Kohl Ethnological Collection* consists of Indian implements, weapons, clothing, etc., mostly from Alaska.

5. The *C. F. Parker Collection of Shells* is made up of choice typical, land, fresh-water, and marine shells. These specimens were all selected by the late Dr. Joseph Leidy from the extensive collection of the founder, C. F. Parker, who was for many years the Curator in charge of the Academy of Natural Sciences of Philadelphia.

6. The *Robert R. Corson Collection of Stalactites and Stalagmites* is composed of specimens from the Luray Caverns, and illustrates the peculiar limestone formations of that and similar districts.

7. The *Eckfeldt Herbarium* contains over two thousand specimens illustrating the flora of Pennsylvania. The *Annie Shoemaker Collection* is a valuable addition to this.

In addition to the above, there is a large and constantly increasing collection of specimens of vertebrates and invertebrates (including the U. S. Fish Commission Educational Collection), of dissected specimens for demonstration in the lectures on Physiology, glass and papier-mâché models of invertebrates and of special points in vegetable and animal morphology, besides some three hundred classified diagrams and colored charts illustrating every branch of natural history.

EXPENSES

The cost of board and tuition is \$400 per year, of which \$250 is payable in advance, and \$150 on the first of First Month.

The tuition of non-resident students is \$150 per year, of which \$125 is payable in advance, and the remainder on the first of First Month. When luncheon is taken with the resident students there is an additional charge of \$50 per year.

A deposit of five dollars is required of each young man to defray any expense incurred by injury to property. The unexpended balance will be returned at the end of the year.

Students purchase their own books, which the College will furnish at the lowest rates obtainable. They also buy their own stationery, drawing implements, and certain tools and materials used in the workshops, and pay a reasonable rate for laundry work done at the College.

In case of illness, no extra charge is made unless a physician or trained nurse is employed.

The above may be depended upon as covering all necessary expenses.

PAYMENTS

Payments are to be made by check or draft to the order of
CHARLES M. BIDDLE, Treasurer,
No. 513 COMMERCE STREET, PHILADELPHIA, PA.

FELLOWSHIPS AND SCHOLARSHIPS

FELLOWSHIPS

The JOSHUA LIPPINCOTT FELLOWSHIP, founded by Howard W. Lippincott, A. B., of the Class of 1875, in memory of his father, consists of a fund yielding an income of \$450 per year, which is granted annually by the Faculty, with the concurrence of the Instruction Committee, to a graduate of the College to enable him to pursue advanced study under the direction or with the approval of the Faculty.

The LUCRETIA MOTT FELLOWSHIP, founded by the Somerville Literary Society and sustained by the contributions of its

members, yields an annual income of \$525. It is awarded each year by a Committee of the Faculty (selected by the Society), with the concurrence of the Life Members of the Society, to a young woman graduate of that year, who is to pursue advanced study at some other institution approved by this Committee.

SCHOLARSHIPS

1. The WESTBURY QUARTERLY MEETING, N. Y., SCHOLARSHIP pays all charges for board and tuition, and is awarded annually by a Committee of the Quarterly Meeting.

2. The REBECCA M. ATKINSON AND THE BARCLAY G. ATKINSON SCHOLARSHIPS yield \$200 each, and are awarded annually by the Board of Managers of the College.

3. The ANNIE SHOEMAKER SCHOLARSHIP pays all charges for board and tuition, and is awarded annually to a young woman graduate of Friends' Central School, Philadelphia.

4. There are nine other similar Scholarships owned by individuals, each entitling the holder to board and tuition at the College. These are awarded by the owners.

5. The I. V. WILLIAMSON SCHOLARSHIPS FOR PREPARATORY SCHOOLS.

For the year 1902-1903 fifteen honor scholarships of the value of \$150 each for resident, and \$75 each for non-resident students, will be offered to members of the graduating classes of 1902 of the following-named schools upon the conditions mentioned below:

2	to Friends' Central School,.....	Philadelphia, Pa.
1	to Friends' Seminary,.....	New York, N. Y.
1	to Park Avenue Friends' High School,...	Baltimore, Md.
1	to Friends' School,.....	Wilmington, Del.
1	to Friends' High School,.....	Moorestown, N. J.
1	to Friends' Academy,.....	Locust Valley, N. Y.
1	to Friends' Select School,.....	Washington, D. C.
1	to Abington Friends' School,.....	Jenkintown, Pa.
2	to George School,.....	George School, Pa.
1	to Chappaqua Mountain Institute,.....	Chappaqua, N. Y.
1	to Swarthmore Preparatory School,.....	Swarthmore, Pa.
1	to Swarthmore Public High School,...	Swarthmore, Pa.
1	to Martin Academy,.....	Kennett Square, Pa.

These scholarships will be awarded upon competitive examination under the direction of the College Faculty. None will be awarded to applicants who fail to be admitted without condition to the Freshman class, and every holder of such scholarship must pursue in College the studies of one of the regular courses.

6. For the year 1902-1903, three honor scholarships are offered for work in the College. They are of the value of \$200 each for resident, and \$100 each for non-resident, students, and are awarded in each instance to that member of the class who shall be promoted without conditions, and shall have the best record of scholarship upon the regular work of the year.

The DEBORAH FISHER WHARTON SCHOLARSHIP will be awarded to a member of the Junior class of 1901-1902.

The SAMUEL J. UNDERHILL SCHOLARSHIP will be awarded to a member of the Sophomore class of 1901-1902.

The ANSON LAPHAM SCHOLARSHIP will be awarded to a member of the Freshman class of 1901-1902.

If any of the Scholarships under 5 and 6 are not awarded, the funds thus released will be applied to Scholarships similar to those under 7.

7. For the benefit of students needing pecuniary aid, whose previous work has demonstrated their earnestness and their ability, the following are offered. About one-fourth of them will be available for new students for the year 1902-1903. They will be awarded at the discretion of the Committee on Trusts, Endowments, and Scholarships. Application should be made to the President.

The SAMUEL WILLETS SCHOLARSHIPS: Ten scholarships of \$150 and ten scholarships of \$100 per year.

The ISAAC STEPHENS SCHOLARSHIPS: Four scholarships of \$50 per year.

The MARY WOOD SCHOLARSHIPS: Two scholarships of \$50 per year.

REQUIREMENTS FOR ADMISSION

Application for admission should be made as early as possible by letter to the President. Students are not admitted for a period less than the current college year, but, when vacancies exist, they may enter at any time during the year. The College is closed during vacations, and those who desire to remain in College at such times are expected to make special arrangements with the Faculty.

All applicants must present satisfactory testimonials of good character from their former teachers, and students coming from other colleges must offer certificates of honorable dismissal. Students admitted to the College are expected to abstain entirely from the use of tobacco.

EXAMINATIONS FOR ADMISSION

Examinations for admission may be taken either in the Summer, at the close of the college year, or in the Autumn. (See the Calendar on page 3 for the dates.)

Candidates for admission to the Course in Arts must present the first six of the fourteen studies enumerated below, and *two* of the remaining eight. Candidates for admission to the Courses in Letters, Science, and Engineering, must present the first four studies enumerated below, and *four* of the remaining ten. The four optional studies must be either :

- (a) Elementary and advanced work in two languages ;
- or (b) Elementary work in two languages, with advanced work in one of the two, and 13 *or* 14 ;
- or (c) Elementary and advanced work in one language, and 13 *and* 14.

The fourteen studies are as follows :

I. MATHEMATICS.

(a) *Algebra*.—To Permutations and Combinations in a book of High-School grade. (Hall and Knight's, or C. Smith's, elementary text-book is suggested.)

(b) *Geometry*.—The whole of Plane Geometry.

2. ENGLISH GRAMMAR AND COMPOSITION.

3. ENGLISH LITERATURE.

For 1902:

(a) A *general* knowledge of the following works and their authors: Shakespeare's *The Merchant of Venice*; Pope's Homer's *Iliad*, Books I, VI, XXII, and XXIV; the *Sir Roger de Coverley Papers* in *The Spectator*; Goldsmith's *The Vicar of Wakefield*; Coleridge's *The Rime of the Ancient Mariner*; Scott's *Ivanhoe*; Tennyson's *The Princess*; Cooper's *The Last of the Mohicans*; George Eliot's *Silas Marner*.

(b) A *special* knowledge of the subject-matter, form, and structure of the following works: Shakespeare's *Macbeth*; Milton's *L'Allegro, Il Penseroso, Comus* and *Lycidas*; Burke's *Speech on Conciliation with America*; Macaulay's *Essay on Milton* and *Essay on Addison*.

For 1903 to 1905:

(a) A *general* knowledge of the following works and their authors: Shakespeare's *The Merchant of Venice* and *Julius Cæsar*; the *Sir Roger de Coverley Papers* in *The Spectator*; Goldsmith's *The Vicar of Wakefield*; Coleridge's *The Ancient Mariner*; Scott's *Ivanhoe*; Carlyle's *Essay on Burns*; Tennyson's *The Princess*; Lowell's *The Vision of Sir Launfal*; George Eliot's *Silas Marner*.

(b) A *special* knowledge of the subject-matter, form, and structure of the following: Macaulay's *Essay on Milton* and *Essay on Addison*; Burke's *Speech on Conciliation with America*; Shakespeare's *Macbeth*; Milton's *Paradise Lost*, Books I and II.

4. HISTORY.—Any two of the following: United States, England, Greece, Rome, General History. Text-books suggested for preparation: McMaster's "School History of the United States;" Gardiner's "School History of England;" Oman's "Greece;" Allen's "Rome;" Myers's or Colby's "General History."

5. ELEMENTARY LATIN.—First Latin Book; Cæsar, four books; Latin Grammar, the essentials, particularly paradigms and elementary syntax.

6. ADVANCED LATIN.—*Æneid*, six books; Cicero, seven orations (including those against Cataline; *Pro Milone* or *Pro Lege Maniliâ* will be counted as two); Latin Composition,* the accurate translation into Latin of easy sentences involving words and constructions of frequent occurrence in Cicero's first Oration against Cataline.

7. ELEMENTARY GREEK.—Grammar (Goodwin's recommended); Elementary Composition; Xenophon's *Anabasis*, Book I.

*The attention of teachers is especially called to the importance of Latin Composition as a foundation for College work.

8. ADVANCED GREEK.—*Anabasis*, Books II, III, IV; *Iliad*, Books I, II, III; General History of Greece to the death of Alexander.

9. ELEMENTARY GERMAN.—Thomas's Practical German Grammar, Part I; Grimm's *Märchen* (twelve selections); Eichendorff's *Aus dem Leben eines Taugenichts* (Chapters VII and VIII omitted); E. S. Buchheim's Elementary Prose Composition, Part I; Schiller's *Wilhelm Tell* (first three acts). Equivalents will be accepted.

10. ADVANCED GERMAN.—Thomas's Practical German Grammar (reviewed and continued); Schiller's *Wilhelm Tell* (completed); one of Riehl's *Culturgeschichtliche Novellen*; Freytag's *Die Journalisten*; Goethe's *Iphigenia auf Tauris*; E. S. Buchheim's Elementary Prose Composition (Parts II and III); German ballads and lyrics (seven to be memorized). Equivalents will be accepted.

11. ELEMENTARY FRENCH.—Ability to read easy prose at sight, to put into French simple English sentences, and to answer questions on the elements of the Grammar (Grandgent's *The Essentials of French Grammar* is recommended). About three hundred pages of modern prose should have been read, from the works of at least three different authors. Candidates should be able to pronounce correctly and to reply in French to questions on simple subjects. The preparation should occupy two years, with not less than three recitations per week.

12. ADVANCED FRENCH.—Ability to read at sight more difficult French, including plays of the classic period, to put easy English prose into French, to answer questions involving an advanced knowledge of the syntax as presented in the *French Grammar* of Bevier, Edgren, or Whitney. About seven hundred and fifty pages should have been read, from the writings of at least five standard authors. The preparation is expected to occupy four years, with not less than three recitations per week.

13. SCIENCE.—Two of the following: Botany, Chemistry, Physical Geography, Physics, Zoölogy, as presented in the better class of High-School text-books.

14. Solid Geometry, and Plane Trigonometry as presented in the text-book of Crockett, Murray, or Crawley.

ADMISSION BY CERTIFICATE

Graduates of Friends' Schools and of public High Schools approved by the Faculty and Instruction Committee will be admitted to the Freshman Class on certificate of the Principal, but this privilege does not secure in every case admission without condition.

Students admitted by certificate are received on trial, and the Faculty reserves the right to change their classification or to decline to continue their connection with the College, if they are found not properly prepared. The privilege of sending students on certificate may be withdrawn from any school whose pupils are found to be deficient.

Principals of other schools who wish to have students admitted on their recommendation, should correspond with the President concerning each applicant.

The College will accept for admission the certificates issued by the College Entrance Examination Board which was organized in 1899 by the Association of Colleges and Preparatory Schools of the Middle States and Maryland. Information as to the examinations held by this Board may be obtained from its secretary, Prof. T. S. Fiske, Station 84, New York City.

DEPARTMENTS OF INSTRUCTION

The figures in parenthesis after each course refer to the number of recitation periods per week. For tabular statement of Courses of Study leading to the Bachelor's Degree, see pp. 59-62.

BIBLICAL LITERATURE

JESSE H. HOLMES, *Professor*

The courses in Biblical Literature are entirely unsectarian, being based on the results obtained by conservative Christian scholars. It is the intention to give such a general knowledge of the Hebrew Scriptures from the religious, historical, and literary points of view as should be possessed by all intelligent persons in view of the important place those writings have filled in the history of civilization.

COURSE I. Assigned readings in the Old Testament, supplemented by recitations, and by lectures on contemporary history, etc. Required of all Freshmen. (1.)

COURSE II. Assigned readings in the Old and New Testaments, supplemented by recitations, and by lectures on contemporary history, etc. Required of all Sophomores. (1.)

COURSE III. Detailed study of selected portions of the Bible. Elective for Juniors and Seniors. (2.)

Course III involves, in addition to further Bible readings, definite studies in Hebrew History and allied subjects. It will be devoted to a study of the Old and New Testaments in alternate years, the New Testament being considered in 1901-2. Special attention will be paid to the development of ethical ideas in the Old Testament and to the culmination of that development in the New Testament.

BIOLOGY AND GEOLOGY

SPENCER TROTTER, *Professor*

The course in Biology embraces the subjects of Zoölogy and Botany; Mammalian and Human Anatomy; Physiology; Verte-

brate Morphology and Development (Embryology); and Normal Histology.

While it is designed to give a broad and liberal view of the facts and problems of life as a part of the system of general culture, the course in Biology is especially valuable to students who are looking forward to the study of Medicine.

Lectures, demonstrations, and text-books are used in connection with laboratory work. The courses are as follows:

COURSE I. *a.* ELEMENTS OF ZOÖLOGY.—Lectures and laboratory work covering the practical study of the main types of vertebrates and invertebrates, and the consideration of the problems of geographical distribution, environment, heredity, structure, function, and development. Text books: Kingsley's *Comparative Zoölogy*; Trotter's *Abstract of Zoölogy*. (4.) First semester.

b. ELEMENTS OF BOTANY.—Lectures and laboratory work. Examination of the tissues of the plant, and consideration of the physiology of cell-life and of plant morphology. This includes a course in Economic and Agricultural Botany. Text-books: Potter's *Agricultural Botany*; Gray's *Botany*. (4.) (Second semester.) The course in Botany and Zoölogy embraces a working knowledge of the microscope. Students desiring to do more advanced work in the study of plant structure will be given an opportunity by making special arrangements with the professor.

COURSE II. MAMMALIAN AND HUMAN ANATOMY AND PHYSIOLOGY.—Dissection of the cat as a type; osteology, myology, visceral anatomy, the blood-vessel system, and the brain and nervous structures. Detailed study of the human skeleton and the various structures of the human body as compared with those of the lower animals. Lectures and demonstrations. Text-book: *Anatomy of The Cat*, Reighard and Jennings. Reference books: Jayne's *Mammalian Anatomy*; Gray's *Human Anatomy*. (8=4.)

COURSE III. *a.* PHYSIOLOGY.—Lectures, recitations, and laboratory work (includes *Normal Histology*—microscopic examination and study of animal tissues, and practical work in

Physiology). Text-books: Huxley's *Physiology* (American edition by F. S. Lee); Foster and Langley's *Practical Physiology*. Reference: Foster's *Text-book of Physiology*. (8=4.) First semester.

b. VERTEBRATE MORPHOLOGY AND EMBRYOLOGY.—Dissection of types. Text-books: Martin and Moale's *Handbooks of Vertebrate Dissection*; Huxley's *Comparative Anatomy of Vertebrates*. Collateral reading of literature on the subject. (8=4.) Second semester.

COURSE IV. GEOLOGY.—A study and practical examination of all the important types of rocks; lectures on structural and dynamic geology; study of geological horizons, etc. Geology in relation to Sanitary Science is considered during the course. Open to all students above the Freshman Class. (2.)

CHEMISTRY

GREGORY PAUL BAXTER, *Assistant Professor in charge*

The course in Chemistry extends through a period of four years. Its completion will enable the graduate to enter at once upon a university career as candidate for the degree of Doctor of Philosophy; to enter upon professional work as analytical or technical chemist; or to engage in teaching chemistry in a fully equipped secondary or college preparatory school.

Those who may desire to continue the study beyond the limit of the College course will have suitable work assigned them and will be provided with every facility.

The Chemical Laboratory occupies a part of Science Hall; it includes rooms for work in general chemistry; qualitative and quantitative analysis, and organic chemistry; also a commodious experimental lecture room, balance room, library, a research laboratory, a basement room for assaying and metallurgy, and store-rooms for apparatus and chemicals.

Laboratory supplies are in great part imported, duty free, from Germany, and are in all cases selected with reference to use in the most modern methods of analysis or of experimental demonstration in the lecture room and laboratory. The balances in use are of the best Troemner pattern, and from the very be-

ginning the student in quantitative analysis is allowed to use only the most exact instruments for weighing, thus cultivating from the start the delicacy of manipulation so essential to the attainment of precision in scientific work. Conveniently located with respect to the various working rooms is a library of standard works of reference, journals, etc.

Text-books. From the beginning the student is taught to regard the text-book as an aid to the comprehension of phenomena and general principles in the science, and as subordinate to actual laboratory contact with substances and the direct study of their changes. The following books are at present in use: *College Chemistry*, Remsen; *Qualitative Analysis*, A. A. Noyes; *Quantitative Analysis*, Talbot (for beginners) and Fresenius (for advanced students); *Organic Chemistry*, Perkin and Kipping; *Introduction to Physical Chemistry*, Walker. In special lines, such as iron and steel analysis and technical analysis in general, such special works are used as the subjects call for.

COURSE I. General Descriptive Chemistry. A study of the metals and non-metals and of the fundamental laws and theories of Chemistry. Lectures and laboratory work. (4.)

COURSE II. Qualitative Analysis, basic and acid; chiefly laboratory work. (8=4.)

COURSE III. *a.* Organic Chemistry. Lectures on the chemistry of the compounds of carbon. (2.)

b. Organic Chemistry. Laboratory work. (4=2.)

c. Quantitative Analysis.—Gravimetric and Volumetric. Chiefly laboratory work. (6=2.)

Courses III *a* and III *c* may be elected separately. Course III *b* must either be accompanied, or have been preceded, by Course III *a*.

COURSE IV. *a.* Physical Chemistry. Lectures and collateral reading. (2.)

b. Advanced Quantitative Analysis. Laboratory work in such department of Analytical Chemistry as may best suit the future interest or occupation of the student. (6=2.)

Course IV *a* must be preceded by Course III *c*.

Students electing Course IV must have studied Conic Sections. A knowledge of Calculus is desirable.

DRAWING AND PAINTING

BEATRICE MAGILL, *Director of Studio, and Lecturer*

History of Painting. The work of this course is a historical and critical study of the development of painting from the earliest historical period down to modern times.

Instruction is given by lectures illustrated by photographs and supplemented by recitation. A course of collateral reading is required in connection with which the student is expected to make a careful study of the photographs used for illustration in the lectures. Description and critical analysis of the works under consideration is also required.

COURSE I. A summary of Egyptian, Assyrian, Persian, and Greek Painting, followed by a more extended study of Early Italian Painting. (2.) First semester.

Later Renaissance Painting in Italy. (2.) Second semester.

COURSE II. Flemish and Dutch Painting. (2.) First semester.

Painting in Germany, Spain, France, and England. (2.) Second semester.

Courses I and II are given in alternate years. During the year 1901-1902 Course I is given.

A course of Freehand Drawing and Painting, in the studio, is open to all. Aside from its intrinsic value as a means of culture the study leads to habits of close observation, and may be made an important adjunct to other courses, especially those in Engineering and Science. As the instruction in this department is altogether individual and adapted to the special needs of each student, there is no course marked out for each class, but every student must pursue the following order of work:

COURSE III. Studio Practice.—Drawing from geometrical objects, still life, casts (ornament, details of figure, head or figure). (5=2.)

COURSE IV. Studio Practice: Painting (either in oil, water-color, or pastel) from still-life or flowers; out-door sketching.

ENGINEERING AND THE MECHANIC ARTS

WILBUR M. STINE, *Professor*

J. PAUL J. WILLIAMS, *Assistant*

T. W. HESLIN, *Assistant*

The course in Engineering and the Mechanic Arts is designed to afford a thorough general training for students who intend to engage in the profession of Civil, Mechanical, or Electrical Engineering.

The location of the College is most favorable for engineering students; the ready access to Philadelphia and to the important manufacturing cities in the vicinity affords opportunities for instructive visits to a great variety of industrial and engineering works.

The course of instruction in both the theory and practice of Engineering is arranged with the view of furnishing to its graduates a liberal preparation for immediate usefulness in the office, works, or field, in more or less subordinate positions. By adding familiarity with commercial demands and practices to the theory and practice of the school, they may successfully undertake the design of machinery, the superintendence of works, or the conduct of engineering enterprises.

The instruction is given both by lectures and recitations, and in the exercises in field, shop, laboratory, and draughting-room there is constant opportunity for individual instruction. Throughout the entire course the student is familiarized with the methods and processes of the Mechanic Arts by systematic instruction both in wood and metal working. The object is to avoid mere manual routine in such exercises, and to make them a means for the development of the powers of observation and judgment, as well as for the acquisition of mechanical skill.

The field equipment of the department is ample for practice in surveying and locations, and opportunity is given the student to become familiar with the use and adjustment of the apparatus.

The Draughting Rooms are large, well-lighted, and furnished

with adjustable tables, models, etc., and are open for work during the greater part of the day.

The Engineering Laboratory contains a ten-horse-power vertical steam engine, an Olsen's testing machine, arranged for tensile, compressive, and transverse tests, steam engine indicators, apparatus for hydraulic and steam engine experiments, and other valuable instruments and appliances.

A friend of the College has recently presented an Olsen screw-gear testing machine to the Laboratory. This machine has an ultimate capacity of 100,000 pounds for tension and compression tests. Other additions to the equipment are micrometers for tension, compression, and deflection strains; and attachments to the smaller Olsen machine for testing specimens of cement.

SHOP WORK. This portion of the work holds an important place in the general engineering course, being pursued through the first three years. It is not desired to impart the skill of the trained workman, but rather to lay a foundation in the elements of shop practice upon which mature judgment and observation may establish successful practice.

The course in woodworking covers instruction in joining, framing, and woodturning. This preliminary work is followed by the elements of pattern making.

The work in forging is based on a set of exercises involving drawing, bending, upsetting, welding, and tempering. This course is followed by a short one in foundry practice.

Machine practice is pursued through two years of the course. During the first year, practice is given in bench and vise work, followed by lathe work, and exercises on the planer, shaper, and universal milling machine. The various exercises also involve tapping, screw-cutting, and work to standard gauges.

During the second year, after completing the design and draft of a machine, such as a lathe, small pump, or engine, the project is completely constructed, affording the student a thorough experience in shop construction.

The Machine Shop contains an excellent assortment of tools,

including screw-cutting engine lathes, speed lathes (simple and back geared), an iron planer, a complete universal milling machine, a set of milling cutters, a shaper, a twist-drill grinder, upright drills, an emery grinder, a mill grinder, lathe centre grinder, vises (plain and swivel), lathe chucks (combination, independent, scroll, and drill), a milling machine chuck, a rotary planer chuck, planer centres, a set of Bett's standard gauges, surface plates (Brown & Sharpe), sets of twist drills, reamers, mandrels, screw plates, taps and dies, a complete set of steam fitters' tools, with pipe vise, ratchet drill, etc., together with the many necessary small tools, hammers, chisels, files, etc. Additions are constantly being made to this collection as they are needed, either by manufacture in the shops or by purchase. Power is furnished by a 10x24 Corliss steam engine and a sixty horse power return tubular boiler, the former fitted with an improved indicator, and the latter with the necessary attachments for determining its efficiency, etc.

The Woodworking Shop contains benches with vises and sets of woodworking tools, grindstone, and woodturning lathes.

The Smith Shop contains forges, anvils, and sets of blacksmith tools, bench, and vise.

The Foundry contains a brass furnace, moulders' benches, a variety of patterns, and full sets of moulders' tools.

The details of the course vary somewhat from year to year, but in general are represented by the following arrangement of the studies:

FRESHMAN YEAR

DRAFTING—Use of Instruments and Elements of Structural and Machine Drawing; Representation of Materials of Construction; Projections; Pen Lettering; Drawings from Objects, these being the Exercises in Woodworking and Machine Practice, with Tracings and Blue Prints.

SHOP WORK.—Woodworking, Forging, and Founding.

SOPHOMORE YEAR

DRAWING—Plates in the course in Descriptive Geometry; Tinting; Pen Topography, Complete Working Drawings, Tracings, and Blue Prints from a Simple Machine or Structure.

- SHOP WORK—Vise Work; Chipping and Filing; Machine Practice.
 DESCRIPTIVE GEOMETRY—The Point, Right Line and Plane; Figures of Revolution; Intersections. (First semester.)
 SURVEYING—Theory and Practice; the Use and Adjustment of Instruments. (Second semester.)
 GRAPHICS—The Elements of Graphical Statics and the Investigation of Simple Structures.

JUNIOR YEAR

- MECHANICS OF MATERIALS—Theory of Elasticity; Stresses and Strains; Applied Mechanics of Materials of Construction.
 MACHINE DESIGN—Kinematics; Simple Machines.
 STRUCTURES—The Materials of Construction.
 THERMODYNAMICS—Theory of the Heat Engine; Steam and Gas Engines.
 SURVEYING—Field Practice with Level, Transit, and Plane Table; Stadia Surveying.
 SHOP WORK—Preparation of Working Drawings, and the Construction of a Machine Project, such as a Lathe Head.
 LABORATORY—Quantitative Determinations in the Mechanics of Materials; Experimental Work with the Steam Engine, including Valve Setting.

SENIOR YEAR

- RAILWAY AND ROADWAY ENGINEERING—Surveys and Study of Construction; Railway Economics; Theory of Curves.
 HYDRAULICS—Mechanics of Fluids; Theory and Practice of Water Motors.
 THEORY OF ERRORS—General Discussion; Application to Engineering Calculations.
 SPECIFICATIONS—The Preparation of Complete Specifications for a Structural Project, including Drawings and Estimates.
 METALLURGY—Lectures on the Metallurgy of Iron and Steel.
 DRAWING AND DESIGN—The Design of a Structure or a Machine with full Working Drawings, Tracings, and Blue Prints. Bridge and Roof Truss Design.
 POWER PLANTS—Steam and Hydraulic Plants; Electric Lighting and Power Plants.

ENGLISH LANGUAGE AND LITERATURE

- WILLIAM HYDE APPLETON, *Anglo-Saxon and World Literature*
 JOHN RUSSELL HAYES, *English Literature, Rhetoric, and Composition*
 MYRTIE E. FURMAN, *Elocution and Oratory.*

The course in English Literature extends through four years, instruction being given by recitations and lectures.

During this time the English Language is studied in connection with the Literature, from the Anglo-Saxon period to the present. The particular feature of the course is the critical reading in the class-room of representative authors, mainly Chaucer, Spenser, Shakespeare, Milton, Pope, Wordsworth, Tennyson, Emerson, and Whittier. Peculiarities of style and language are considered, and every effort is made towards a thorough comprehension of the literature studied. The author's life is discussed in its relations to the history of the time, and his works are compared with those of his contemporaries. By this course it is expected that the student will be enabled to form an intelligent estimate of the style and merits of the great authors of English Literature.

So far as practicable, the work in Literature, in Rhetoric and Composition, and in Elocution and Oratory, is co-ordinated. The subjects for essays are drawn in part from the work in Literature; and in Elocution and Oratory the development of intelligent oral expression is considered to depend upon the study, as literature, of the selections read.

a. English Literature. Assistant Professor HAYES and Professor APPLETON.

COURSE I. Essays of Lamb and Emerson; Poetry of Wordsworth, Scott, Shelley, Keats, Tennyson, Arnold, and Whittier.

The aim here, as in all the courses, is towards intellectual discipline and spiritual insight, no less than towards an appreciation of literary values. Portions of other authors are read; and a short historical survey of the Greek and Roman literatures is given, in order to illustrate the debt of the English to the earlier great literatures. Selected books are assigned also for private reading, and students write critical reports thereon. Required of Freshmen in Letters and Engineering. (4.)

COURSE II. One of Marlowe's plays; Lodge's *Rosalynde*; selected plays of Shakespeare, with comparative study of his predecessors; Milton; minor poets and essayists of the seventeenth and eighteenth centuries. Lectures on the Elizabethan and following periods. Private readings and reports. Required of Sophomores in Letters. (4.)

For the Sophomores in Engineering a separate course is

given, in which are read representative authors from Chaucer to Arnold. (2.)

COURSE III. Anglo-Saxon: Sweet's Primer, Cynewulf's *Elene*; Lectures on the Anglo-Saxon period. (4.) First semester.

Chaucer; Spenser's *Faery Queene*; private reading of contemporary authors; Lectures on the Transition and Middle English periods, and on the Development of the English Language. (4.) Second semester.

Required of Juniors in Letters. Elective for Seniors and Juniors in Arts, Science, and Engineering.

Besides the required class-work there is in all classes opportunity offered for students to pursue additional reading and investigation under the direction of the professors.

b. World Literature. PROFESSOR APPLETON.

This is a course in the study of great classics, other than English, belonging to ancient and modern literature. The first semester is devoted mainly to Homer—the Iliad and the Odyssey—and to the Greek Drama; the second semester mainly to Dante. The course is conducted through the medium of standard English translations, together with lectures by the instructor, and oral discussions and written abstracts by the students. (4.)

Elective for all Seniors and Juniors.

c. Rhetoric and Composition. ASSISTANT PROFESSOR HAYES.

COURSE I. Practice in clear and logical expression. Studies in the diction of Bunyan, De Quincey, Burke, Thackeray, Lowell, Carlyle, and Hawthorne. (1.) Required of all Freshmen.

COURSE II. Study of prose masterpieces of Froude, Stevenson, Arnold, Ruskin, Newman, and Bryce; essays and debates. (1.) Required of Sophomores in Arts, Letters, and Science.

COURSE III. Study of literary invention and expression as illustrated by Lamb, Landor, Newman, Ruskin, Pater, James, Garland, and Burroughs; writing of themes and critical papers. Lectures on Prose Style. (1.) Required of Juniors in Arts, Letters, and Science.

COURSE IV. The preparation of graduating theses. Required of all Seniors.

d. Elocution and Oratory. Assistant Professor FURMAN.

The aim in this course is to stimulate mental activity, to cultivate the imagination, and to arouse the sensibilities; the theory being that effective expression is a result of vivid mental impressions. Hence the student is given exercises whereby he learns to utilize his experiences, to vivify his thought, and thus enter into the spirit of the literature and make it a part of himself. Due attention is given to voice culture, and to certain phases of physical training which tend to bring the body into harmony with the mind and to make it a more perfect instrument of expression.

The course extends through four years, two periods per week, and consists of voice culture and drill in enunciation; original work, including extemporaneous speech and debate; recitation of typical orations in connection with the work required under Rhetoric and Composition; careful interpretation of Shakespeare and other standard authors.

Oratorical Associations and Prizes

The *Swarthmore College Oratorical Association* conducts an annual contest, open to all students, the winner in which represents the College in the annual contest of the *Pennsylvania Inter-Collegiate Oratorical Association*.

The President's Prize of fifty dollars is contested for by representatives of the Sophomore and Freshman Classes, and invested in some permanent memento of the successful class for presentation to the College.

The Delta Upsilon Prize of twenty-five dollars is competed for in the College Oratorical contest.

The Sproul Testimonial of twenty-five dollars, offered by Hon. William C. Sproul, of the Class of 1891, is awarded as prizes in an oratorical contest open to members of the Junior Class.

Prizes for extemporaneous speaking: two prizes of twenty-

five dollars each, one contested for by the young men and one by the young women, have been offered during the last three years by a friend of the College.

The Hicks Testimonial of fifteen dollars, given annually by Frederick Cocks Hicks, of the Class of 1893, is contested for by members of the Eunomian Literary Society.

The Underwood-Ponder Testimonial, a silver cup given by William G. Underwood, of the Class of 1887, and James W. Ponder, of the Class of 1890, is annually contested for by the literary societies of the College.

FRENCH LANGUAGE AND LITERATURE

EDWARD H. MAGILL, *Professor Emeritus and Lecturer*
ISABELLE BRONK, *Assistant Professor in charge*

The instruction in this department has as a basis the study of ordinary colloquial French as a living language. Though reading is begun very early, colloquial French (including pronunciation) continues to receive the most attention throughout the first two years. The student will then be ready to be brought into contact with the more artificial (rhetorical) forms of expression constantly occurring in the higher grades of literature. As far as practicable, French is made the language of the classroom.

In the later years a series of lectures is given on the more prominent French writers. In these lectures, the biographical element purposely receives especial attention; no attempt is made at exhaustive treatment, but the aim is to make the student familiar with the leading works of the authors chosen.

COURSE I. Elements of Grammar, with Composition. Beginners' Reader, followed by narrative prose (Sarcey's *Le Piano de Jeanne*, or Mme. de Witt's *Sur la Pente*, Mérimée's *Colomba*, George Sand's *La Mare au Diable*) and by modern plays. (4.)

COURSE II. Grammar continued, with prose Composition (Marcou's *Exercises* and Grandgent's *Selections*, Parts I, II, and III). Prose selected from the writings of A. France (Vol. III,

Magill's Series), Balzac, Daudet, J. Claretie (Vol. IV, Magill's Series), Victor Hugo, and others, with private reading; Corneille (one play), Racine (one play), Hugo's *Ruy Blas* or *Hernani*, Molière's *L'Avare* and *Le Bourgeois Gentilhomme*. (4.)

COURSE III. Prose Composition (Grandgent's *Selections*, completed). French Literature in the XVIIth century, with the court of Louis XIV as a center or focus. Voltaire's *Le Siècle de Louis XIV* (ed. Hachette et Cie). Literary and social tendencies: Molière's *Les Précieuses Ridicules* and *Les Femmes Savantes*; Corneille's *Le Cid*; Racine, La Fontaine (ed. Hachette et Cie), Boileau, etc. The literature in the XVIIIth century: Voltaire's Prose (extracts, edited by Cohn and Woodward); Beaumarchais' *Le Mariage de Figaro*, etc. (4.)

COURSE IV. Prose Composition continued. Prose authors of the XVIIth century (Descartes, Pascal, Bossuet, La Bruyère, Mme. de Sévigné, and others); Harper's Selected Essays of Sainte-Beuve, with illustrative readings; French Lyric Poetry, Canfield's Selections, with special attention to Victor Hugo, Lamartine, and more modern poets. Lectures on French Literature from the earliest times to the present, accompanied by collateral reading. (4.)

Dictation, memorizing, and conversation in French are required, throughout all the four courses.

COURSE V. If circumstances demand it, students who desire to specialize in French will be given an opportunity for study in some restricted field of literature, such as (a) literature of the XVIth century, (b) classic letters and memoirs, (c) contemporary literature, (d) Old French. (4.)

International Correspondence: Beginning in the second year, an opportunity is given to students to carry on, under direction, a correspondence with French students.

GERMAN LANGUAGE AND LITERATURE

BENJAMIN F. BATTIN, *Assistant Professor in charge*

The course of study in this department is designed to afford grammatical and linguistic training, and (for those who have not

had a full classical course) a degree of literary culture. It brings the student into touch with the character and genius of the German people.

Emphasis is laid upon the relations of the German to the English and to the classical languages; upon etymology and syntax; and upon social conditions and political events. The courses, however, are literary rather than historical and philological.

In the class-room translation into English is discontinued as soon as possible and expressive reading of the German text is substituted; the students begin early to use the German in recitations. The idiomatic sentence and modern colloquial language form the basis of the work in composition. Reading and translating at sight are cultivated.

Other texts may at times be substituted for some of those indicated.

COURSE I. Thomas's *Practical German Grammar*, Part I; Grimm's *Märchen* (twelve selections); Eichendorff's *Aus dem Leben eines Taugenichts* (Chapters VII and VIII omitted); E. S. Buchheim's *Elementary Prose Composition*, Part I; Schiller's *Wilhelm Tell* (first three acts). (4.)

This course is for those who have had no preliminary training in German; it presupposes a discipline of several years' language work in Latin and French; and prepares for progressive and independent work. It aims to give a definite knowledge of German grammar; an ability to understand spoken German, to converse during the recitation, to summarize in German the topics discussed in class, to write easy German, to acquire a correct pronunciation, and to memorize simple lyrics.

COURSE II. Thomas's *Practical German Grammar* (reviewed and continued); Schiller's *Wilhelm Tell* (completed); one of Riehl's *Culturgeschichtliche Novellen*; Freytag's *Die Journalisten*; Goethe's *Iphigenia auf Tauris*; E. S. Buchheim's *Elementary Prose Composition* (Parts II and III); German ballads and lyrics (seven to be memorized). Lectures in German on literary characters and social conditions. (4.)

This course will prepare students to read such German textbooks as may be used in the scientific and literary departments.

COURSE III. Schiller's *Wallenstein* (ed. Carruth); Heine's *Harzreise*; Freytag's *Aus dem Staat Friedrichs des Grossen*. Lectures in German on the history of German Literature. Private reading: Selections from Sherer's *History of German Literature*; Nevinson's *Life of Schiller*. German Prose Composition, using texts and free composition. (4.)

COURSE IV. Goethe's *Dichtung und Wahrheit*; Lessing's *Nathan der Weise*; Freytag's *Doktor Luther*; Kleist's *Der Prinz Friedrich von Homburg*; Grillparzer's *Sappho*. Private reading: Sime's *Life of Goethe*; Gerstäcker's *Irrfahrten*. Lectures on Goethe. Free Prose Composition. This course is conducted in German. (4.)

Courses III and IV presuppose a systematic knowledge of the grammar and the ability to converse readily. The students present summaries in German of the texts read and oral discussions of assigned topics.

COURSE V. (1901-1902.) German Literature of the XIXth century. The method is largely that of the seminar. The grammar is studied from the pedagogical standpoint; lectures are given by the students, on the grammar and on literary or social topics. Methods of German literary criticism are studied as well as prose and verse composition. This course is conducted in German. Admission by special application. (4.)

COURSE V. (1902-1903.) (a.) History of the German Drama. (2.) (b.) German Scientific Readings. (1.) (c) German Lyrics and Ballads. (1.)

The *Deutscher Verein* meets once a week for conversation and social enjoyment.

International Correspondence: Students who desire it are given an opportunity to carry on, under direction, correspondence with students in German institutions.

GREEK LANGUAGE AND LITERATURE

WILLIAM HYDE APPLETON, *Professor*

MARY CORWIN LANE, *Assistant*

The following statement is intended to give a general idea of the range of work done in the Greek department. Circum-

stances may at times require the authors named to be read in a different order, and some substitutions may also be made.

COURSE I. *Herodotus*, Books VI and VII; or *Thucydides*. Study of Persian and Peloponnesian Wars. *Homer*, The Odyssey, Books IX, X, XI, XII. Sight reading in other parts of the poem. Required in the Arts Course. (4.)

COURSE II. *Plato*, Apology and Crito with parts of *Phaedo*. Study of Socrates from Xenophon and Plato. Exercises in Greek Composition based upon texts read. *Æschylus*, Prometheus; or *Sophocles*, Antigone. Study of the Greek Drama. Required in the Arts Course. (4.)

COURSE III. Greek Oratory: *Lysias*, *Isocrates*, or *Demosthenes*, with a review of Greek history to the death of Alexander. *Euripides*, Alcestis, or Iphigenia among the Taurians. Elective. (4.)

COURSE IV. *Aristophanes*, one play. *Theocritus*, selected Idylls. Lectures on Greek Literature. A short course in Modern Greek as follows: Gardner's *Short and Easy Modern Greek Grammar*; Modern Greek Ballads; Anna Sewall's *Black Beauty*, as published in Modern Greek. Newspaper Greek, illustrated by the *Atlantis*. Elective. (4.)

FOR BEGINNERS IN GREEK

COURSE V. The Grammar, with thorough drill on forms, oral and written. *Xenophon*, Anabasis, Book I. Some chapters of the Greek Testament. Required of Freshmen in Arts who have offered no Greek for admission. (4.)

COURSE VI. *Xenophon*, Anabasis, Books II, III, IV. *Homer*, Iliad, Books I, II, III. Sight reading. Greek Composition. Required of Sophomores in Arts who have offered no Greek for admission. (4.)

HISTORY AND POLITICAL ECONOMY

WM. I. HULL, *History, Economics, and Social Science*

JESSE H. HOLMES, *History*

GUSTAV A. KLEENE, *Economics, and Social Science*

The group of studies included within this department—History, Politics, Economics, and Social Science—is designed to

furnish information necessary for intelligent citizenship, and to provide a preliminary training for those who intend to engage in the practice of law, journalism, business, or the public service. Instruction is given by means of lectures, text-books and collateral reading, and oral and written reports by the students on assigned topics. In the upper classes each student is required to make an independent and detailed study of some assigned or chosen subject; for this purpose the library contains a good working collection of public documents and reports, both Federal and State, in addition to standard treatises. In connection with the course in Social Science, visits are made to neighboring charitable and correctional institutions.

History and Politics

COURSE I. *Dr. Holmes*, The Ancient Orient, Greece, Rome. (4.) Open to Freshmen and Sophomores.

COURSE II. *Dr. Holmes*, The Middle Ages, Renaissance, Reformation. (4.) Open to Sophomores and Freshmen.

*COURSE III. *Dr. Hull*, England: its History, Government, and Industry. (4.) Open to Juniors and Sophomores. Offered in 1901-1902.

*COURSE IV. The Old Régime and the French Revolution; Europe in the Nineteenth Century. (4.) Open to Seniors and Juniors. Offered in 1902-1903.

COURSE V. *Dr. Hull*, Problems in American History; United States Biography. (4.) Open to Seniors and Juniors.

Economics and Social Science

COURSE I. Elements of Economics. Industrial Problems of To-day. (Including Labor Organizations; Strikes and Arbitration; Co-operation and Profit-Sharing; Industrial Betterment; Laborers' Insurance; Immigration; The Unemployed; The Eight-Hour Day; Women and Children in Industry; Monopolies and Trusts.) (4.) Open to Sophomores and Juniors.

COURSE II. Public Finance. Money and Bimetallism. Banking. (4.) Open to Juniors and Seniors.

* Courses III and IV are offered in alternate years.

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COURSE III. Socialism: Its History and Claims. Industrial Reformers of the Nineteenth Century. Municipal Problems. Not given in 1901-1902. (4.) Open to Juniors and Seniors.

COURSE IV. Elements of Sociology. Social Problems of To-day. (Including Crime and Punishment; the Insane and Feeble-Minded; Pauperism and Charity; Tenement Houses; Womanhood and the Family; the Children of the Poor; Social Settlements; Intemperance and Methods of Temperance Reform; the Salvation Army's Social Work; the Negro; the Indian.) (4.) Open to Seniors, and to Juniors who have had Course I.

LATIN LANGUAGE AND LITERATURE

FERRIS W. PRICE, *Professor*

MARY CORWIN LANE, *Assistant*

COURSE I. Horace, *Odes*; Cicero, *Letters* (selections); Latin Composition based on Cicero's *Letters*; Mythology. (4.) Required in the Arts Course.

COURSE II. Horace, *Satires and Epistles*; Livy, Books I, XXI, XXII; History of Latin Literature, lectures with illustrative passages from the most important authors. (4.) Required in the Arts Course.

COURSE III. Inscriptions and other remains of early Latin; Plautus, *Trinummus* and *Captivi*; Terence, *Phormio*; Cicero, one or more of the philosophical essays; Hymns and other late Latin. (4.) Required in the Arts Course.

COURSE IV. Catullus, a brief course; Tacitus, *Agricola* and *Germania* (in part). Juvenal, four or five satires; Lucretius and Pliny the Younger, selections. The second semester is devoted to a study of Virgil, with special attention to the *Georgics*, and to the last six books of the *Aeneid*. (4.) Elective.

COURSE V. Cicero, selections from the orations; Ovid, portions of the *Metamorphoses*; exercises in Latin Composition based on Cicero's oration, *Pro Roscio Amerino*. (4.) Elective for all students sufficiently prepared.

COURSE VI. A rapid study of the essentials of Latin grammar, followed by considerable carefully graded reading; emphasis

is laid upon the most important features of the Latin language and Roman life. (4.) This beginners' course is open to Juniors and Seniors who offered no Latin for admission to College and is required of all such students in the Letters Course.

Sight-reading and other collateral work is required in all the Courses.

MATHEMATICS AND ASTRONOMY

SUSAN J. CUNNINGHAM, *Professor*

COURSE I. (a) Solid Geometry (Phillips and Fisher); Plane Trigonometry (Loney). (4.) Required of all Freshmen, unless presented for entrance.

(b) Algebra (C. Smith's Treatise, Chapters XIX-XXXII, with omissions). (2.) Required of Freshmen in Science and Engineering, elective for other students.

COURSE II. Conic Sections (C. Smith); Differential Calculus (Edwards). (4.) Elective in the Arts and Letters Courses, required in the Engineering Course; for Science Course, see p. 61.

COURSE III. Integral Calculus (Edwards); Differential Equations. (4.) Required in Engineering Course; for Science Course, see p. 61.

The following Elective Courses are offered:

1. Modern Pure Geometry. An advanced course. Subjects treated: Harmonic Ranges and Pencils, the theories of Involution, Perspective, Similar Figures, Reciprocation, Inversion, etc.

2. Higher Algebra, beginning with the Theory of Equations (Burnside and Panton) and continuing with Invariants, etc.

3. Plane Analytic Geometry, including Higher Plane Curves. The course will be a continuation of Conic Sections and will be based on Clebsch-Lindemann's *Geometrie*.

4. Solid Analytic Geometry (C. Smith).

5. Curve Tracing.

6. Trigonometric Series, Spherical Harmonics, etc. (Byerly).

7. Elementary Quaternions (Kelland and Tait).

8. Advanced Trigonometry (Loney).
9. Young's General Astronomy.
10. Chauvenet's Spherical and Practical Astronomy.
11. Theoretical Astronomy (Orbit Determination).

PEDAGOGY

PRESIDENT BIRDSALL

This course is offered in 1901-1902, and in alternate years thereafter. It is elective for members of the Junior and Senior Classes who are preparing to teach. The work consists of a careful study of the history of educational progress from the time of Comenius; lectures on the history of education in America and on the present school systems; a study of Method (as it is presented in the works of De Garmo and McMurry, and as it is to be observed in contemporary schools) and of the Psychological Foundations of Education (as presented in the work of William T. Harris); a special study of the doctrines of Froebel and Herbart. The course in Psychology (see p. 55) is closely related to that in Pedagogy, and may be regarded as constituting a part of it. (4.)

PHYSICAL TRAINING

W. S. CUMMINGS, M. D., *Director for the men students*

MARY V. MITCHELL GREEN, M. D., *Director for the women students*

SARAH BROOKE FARQUHAR, *Instructor*

The system of Physical Training is based upon a thorough and careful examination of each student. The record of measurements and other tests affords a means of noting progressive development, and is, in large part, the basis upon which exercises are prescribed. Particular attention is given to all individuals whose physical development is below the normal, special work being prescribed for such, in order to produce, as far as possible, an evenly developed and healthy organism.

All athletic sports are under the immediate supervision of the Directors, and only those students who are in proper physical condition are allowed to participate. Great care is also taken to keep games and athletic contests within such limits as will make

them only a proper means of exercise and recreation, and thus of real assistance to the work of the College.

Two periods per week of Gymnasium work is required of all Freshmen and Sophomores, and of women students throughout the College course.

PHYSICS

GEORGE A. HOADLEY, *Professor*

The Physical Laboratory is provided with apparatus for determinations in the mechanics of solids and fluids, in heat, sound, light, electricity, and magnetism; and with apparatus suitable for lecture experiments. Most of this has been selected with care from the best American and foreign makes; some is of home manufacture. The co-operation of the Engineering Department and the increasing skill of our students enable us to make each year a larger proportion for regular use in the Laboratory. It is our aim to afford students continued opportunities for instruction in the principles of construction of ordinary and special apparatus. Power for running dynamos and for other purposes is supplied.

FOR STUDENTS IN ARTS AND LETTERS

COURSE I. General Physics. This course consists of the investigation of the general laws of Physics and the consideration of their present application. The work is done by lectures and recitations, accompanied by experimental verification of the laws discussed. (4.) Open to Sophomores.

COURSE II. Heat, Magnetism, Electricity, and Light (4.) Open to Juniors.

FOR STUDENTS IN SCIENCE AND ENGINEERING

These courses are intended to be pre-eminently practical, consisting largely of laboratory work in the investigation and verification of the laws of Physics. The recitation work covers the topics treated in Ganot's *Physics*, or other text-books of equal rank, and is supplemented by lectures on the various branches of the subject.

COURSE III. Applied Mechanics and Dynamics. Gases, Liquids, and Sound. (4.) Open to Sophomores.

COURSE IV. Heat, Magnetism, Electricity, and Light.
(4.) Open to Juniors.

COURSE V. Practical Measurements in Magnetism and Electricity. The work of this course is largely experimental, the design being to familiarize the student with the practice and methods of measurement. (2.) Open to Juniors.

COURSE VI. Applied Electricity, supplementing Course V by the practical study of the application of the electric current to the telephone, telegraph, dynamo, electric light, motor, transmission of power, etc. Work in the manufacture and use of these various appliances, as well as in the measurements of electrical quantities, is accompanied by text-book work in Thompson's *Dynamo Electric Machinery*, and by reading and class-discussion of current electrical journals. Visits to the electrical plants of the neighboring villages and cities are made at convenient times, for the purpose of studying the machinery in actual use. (8=4.) Open to Seniors.

PSYCHOLOGY AND PHILOSOPHY

SPENCER TROTTER, *Brain Physiology*

JESSE H. HOLMES, *Psychology and Philosophy*

Psychology.—This course is introduced by a study of Brain Physiology and of the organs of special sense, by means of text-book, models, and dissections. Then follows an inquiry into the conditions of states of consciousness, with James's *Psychology* (Briefer Course) as a text-book. (4.) First semester.

Philosophy.—The work in Philosophy is a historical study of the development of human thought, using Weber's text-book as a basis. Each important system is studied at least in outline, and especial attention is given to the ethical bearings of the more prominent. (4.) Second semester.

COURSES FOR THE BACHELOR'S DEGREE

Every candidate for the Bachelor's Degree will be required to complete one of the following four Regular Courses: Arts, Letters, Science, and Engineering. They have been arranged with a view to making them as nearly as possible equivalent in amount of work involved, and each is intended to insure liberal culture, while it provides opportunity for extended study in one chosen field.

THE COURSE IN ARTS.—The characteristic feature of this course is the study of Classical Antiquity, including the language and literature of the Greeks and Romans, with their art, philosophy, religion, and political and social history. While this course affords that broad culture which should be the foundation of any subsequent career, it may be made to afford special preparation for law or journalism by including electives in History and Economics; or it may be directed toward the study of medicine by choosing electives in Biology and Chemistry. It leads to the degree of *Bachelor of Arts*.

THE COURSE IN LETTERS.—This course, as the name indicates, is distinctly a culture course, the language and literature of the great modern nations—the English-speaking peoples, the French and the Germans—being the central feature. Latin, always a desirable element in general culture, may be taken throughout the course; increased time is given to History and Economics. A judicious choice of electives will afford special preparation for journalism, law, teaching, and other professions. It leads to the degree of *Bachelor of Letters*.

THE COURSE IN SCIENCE.—While this course provides for advanced study in Mathematics, and for an introduction to both French and German, its characteristic feature is extended work in Physics, Chemistry, and Biology. A choice of suitable electives will secure special preparation for the study of medicine, or

for engaging in manufacturing or commercial pursuits. It leads to the degree of *Bachelor of Science*.

THE COURSE IN ENGINEERING.—This course offers a training adapted to the needs of civil, mechanical, and electrical engineers, as well as of the large class who are to be concerned with the material interests of the country, with manufacturing, with industrial pursuits, or with any of the many other occupations allied to engineering. It embraces liberal and technical instruction in the mathematical, physical, and graphical sciences, and their applications, in practical field engineering, in the arts of design and construction, in the use of tools, materials, and machinery, and in processes. It leads to the degree of *Bachelor of Science in Engineering*.

ELECTIVE STUDIES.—The following studies, required with few exceptions in at least one of the Courses, are offered as elective in the others. The freedom of election will sometimes be restricted by the exigencies of the College programme.

Astronomy,	Geology,
Biblical Literature,	German,
Biology,	Greek,
Chemistry,	History,
Drawing and Painting,	Latin,
History of Painting,	Mathematics,
Economics,	Pedagogy,
Elocution,	Physics,
English,	Social Science,
French,	World Literature.

Irregular Courses of Study may be pursued only in special cases and by approval of the Faculty. In the absence of definite arrangement in advance, students will be required to take the studies of one of the Regular Courses.

Partial Courses of Study.—A limited number of teachers and other persons of sufficiently mature age, who may wish to improve themselves in particular studies, will be received without examination, and will be allowed to elect, in any of the regular

classes, such work as they can pursue to advantage. They should in all cases correspond in advance with the President.

Preparatory Medical Course.—In the departments of Biology, Chemistry, and Physics, work is planned to prepare students for the study of medicine. Several leading Medical Schools of Philadelphia and elsewhere will admit to the second year of their courses students who present, with their diplomas, satisfactory certificates of undergraduate work equivalent to the first year of the medical course. Students who desire to take advantage of this arrangement should confer with the professors in charge of the departments of science not later than the end of their Sophomore year.

THE COURSE IN ARTS

For list of Electives, see p. 57.

FRESHMAN YEAR

FIRST SEMESTER. PERIODS.	SECOND SEMESTER. PERIODS.
Greek,4	Greek,4
Latin,4	Latin,4
Mathematics or Elective,4	Mathematics or Elective,4
Biology or History,4	Biology or History,4
Bible Literature, 1; Composition, 1; Elocution, 2; Gymnasium, 2.	

SOPHOMORE YEAR

Greek,4	Greek,4
Latin,4	Latin,4
One of the following:	One of the following:
Mathematics, English, }4	Mathematics, English, }4
French, German, }4	French, German, }4
History or Physics or Economics,4	History or Physics or Economics,4
Bible Literature, 1; Composition, 1; Elocution, 2; Gymnasium, 2.	

JUNIOR YEAR

Greek or Elective,4	Greek or Elective,4
Latin,4	Latin,4
Elective,4	Elective,4
Elective,4	Elective,4
Elective,2	Elective,2
Themes, 1.	

SENIOR YEAR

Greek or Elective,4	Greek or Elective,4
Psychology,4	Philosophy,4
Elective,4	Elective,4
Elective,4	Elective,4
Elective,2	Elective,2

Graduating Thesis.

Students who present Elementary and Advanced *Greek* for admission (see pp. 30-31), will be required to continue the study for two years in College, and may elect it for the remaining two years. To those who present no Greek for admission, an opportunity is afforded to begin the language in College, but they must continue it during the entire four years.

If the *Mathematics* numbered 14 (p. 31) has not been offered for admission, Mathematics must be taken in the Freshman year; if it has been offered, the Elective substituted for it must be approved by the student's Adviser.

One year of *History*, one year of *Science*, and one semester of *Economics* are required for graduation.

Two years of *Modern Language* must be taken in College, Course II in either French or German being completed.

Four years of *Gymnasium* work are required of the women students.

THE COURSE IN LETTERS

For list of Electives, see p. 57.

FRESHMAN YEAR

FIRST SEMESTER. PERIODS.	SECOND SEMESTER. PERIODS.
English,4	English,4
French or German,4	French or German,4
Mathematics or Elective,4	Mathematics or Elective,4
Biology or History or Latin, ..4	Biology or History or Latin, ..4
Bible Literature, 1; Composition, 1; Elocution, 2; Gymnasium, 2.	

SOPHOMORE YEAR

English,4	English,4
French or German,4	French or German,4
Two of the following:	
History,4	History,4
Economics,4	Economics,4
Latin,4	Latin,4
Mathematics,4	Mathematics,4
Physics,4	Physics,4
} ..8	
Bible Literature, 1; Composition, 1; Elocution, 2; Gymnasium, 2.	

JUNIOR YEAR

English,4	English,4
French or German,4	French or German,4
Elective,4	Elective,4
Elective,4	Elective,4
Elective,4	Elective,4
Themes, 1.	

SENIOR YEAR

French or German,4	French or German,4
Psychology,4	Philosophy,4
Elective,4	Elective,4
Elective,4	Elective,4
Elective,4	Elective,4
Graduating Thesis.	

Students are required to take at least two years of both *French* and *German* in College, completing Course IV in either language.

If the *Mathematics* numbered 14 (p. 31) has not been offered for admission, *Mathematics* must be taken in the Freshman year; if it has been offered, the Elective substituted for it must be approved by the student's Adviser.

Two years of *History*, one year of *Science*, and one year of *Economics* are required for graduation.

Juniors and Seniors who have presented no *Latin* for admission are required to complete Course VI in *Latin* (p. 51).

Four years of *Gymnasium* work are required of the women students.

COURSE IN SCIENCE

For list of Electives, see p. 57.

FRESHMAN YEAR

FIRST SEMESTER. PERIODS.	SECOND SEMESTER. PERIODS.
Biology,4	Biology,4
Chemistry,4	Chemistry,6=4
French or German,4	French or German,4
Mathematics or Elective,4	Mathematics or Elective,4
Mathematics (Algebra),2	Mathematics (Algebra),2
Bible Literature, 1; Composition, 1; Elocution, 2; Gymnasium, 2.	

SOPHOMORE YEAR

Chemistry,8=4	Chemistry,8=4
Geology,2	Geology,2
Physics,4	Physics,4
French or German,4	French or German,4
Mathematics or English,4	Mathematics or English,4
Bible Literature, 1; Composition, 1; Elocution, 2; Gymnasium, 2.	

JUNIOR YEAR

Biology,8=4	Biology,8=4
Physics,4	Physics,4
French or German,4	French or German,4
Mathematics or Elective,4	Elective,4
Chemistry or Elective,4	Chemistry or Elective,4
Themes, 1.	

SENIOR YEAR

Biology or Chemistry or Physics,8=4	Biology or Chemistry or Physics,8=4
Psychology,4	Philosophy,4
Elective,4	Elective,4
Elective,4	Elective,4
Elective,4	Elective,4
Graduating Thesis.	

Physics, Chemistry, Biology: students must take all that is offered in one of these sciences, and two years' work in each of the other two.

One year of *French* and one year of *German* must be taken in College, Course II in German being completed.

If the *Mathematics* numbered 14 (p. 31) has not been offered for admission, *Mathematics* (Solid Geometry and Plane Trigonometry—4 periods) must be taken in Freshman year; if it has been offered, the Elective substituted must be approved by the student's Adviser. Students choosing *Physics* as their major subject must take *Mathematics* until the middle of Junior year (through Calculus); those choosing *Chemistry* as their major subject must take *Mathematics*, two periods per week, through the Sophomore year (through Conic Sections).

Four years of *Gymnasium* work are required of the women students.

THE COURSE IN ENGINEERING

For list of Electives, see p. 57.

FRESHMAN YEAR

FIRST SEMESTER.	PERIODS.	SECOND SEMESTER.	PERIODS.
Drawing,	6=2	Drawing,	6=2
Wood Working,	6=2	Forging,	6=2
Mathematics or Elective,	4	Mathematics or Elective,	4
Mathematics (Algebra),	2	Mathematics (Algebra),	2
Chemistry,	4	Chemistry,	4
English,	4	English,	4

Bible Literature, 1; Composition, 1; Gymnasium, 2.

Assigned work for Summer vacation.

SOPHOMORE YEAR

Descriptive Geometry,	5=3	Machine Practice,	6=2
Machine Practice,	6=2	Mathematics,	4
Mathematics,	4	Physics,	4
Physics,	4	Chemistry,	8=4
Chemistry,	8=4	Elocution or English,	2
Elocution or English,	2	Geology,	2
Geology,	2	Graphical Statics,	3=1
Surveying,	2		

Bible Literature, 1; Gymnasium, 2.

Assigned work for Summer vacation.

JUNIOR YEAR

Mechanics of Materials,	4	Thermodynamics,	4
Field Practice and Drawing, 3=1		Laboratory Practice and	
Machine Practice,	6=2	Drawing,	3=1
Physics,	4	Machine Practice,	6=2
Applied Electricity,	2	Physics,	4
Mathematics,	4	Applied Electricity,	2
Elective,	4	Mathematics,	4
		Elective,	4

Assigned work for Summer vacation.

SENIOR YEAR

Railway Engineering,	5	Hydraulics,	4
Laboratory and Field Prac-		Structural Design,	10=4
tice,	6=2	Power Plants,	2
Theory of Errors,	2	Economics,	4
Economics,	4	Elective,	4
Drawing,	4=2	Elective,	2
Elective,	4		
Elective,	2		

Graduating Thesis.

If the *Mathematics* numbered 14 (p. 31) has not been offered for admission, *Mathematics* (Solid Geometry and Plane Trigonometry—4 periods) must be taken in Freshman year; if it has been offered, the Elective substituted must be approved by the student's Adviser.

GRADUATION AND DEGREES

THE DEGREE OF BACHELOR

The degrees of Bachelor of Arts, Bachelor of Letters, Bachelor of Science, and Bachelor of Science in Engineering, are conferred on the completion of the corresponding Courses.

THE DEGREE OF MASTER

All candidates for the Master's Degree (A.M., M.L., and M.S.) must have taken the corresponding Bachelor's Degree at this College. They are required to pursue a course of study at Swarthmore, or elsewhere, under the direction of the Faculty, and to pass examination on the same. Graduates residing at the College may reasonably hope to complete the work in one year; non-residents, engaged in other work, must devote to it not less than two years. Courses of study will be assigned to candidates upon application to the Faculty stating the subject, or subjects, which they desire to pursue. A fee of \$5 is charged when the course of study is assigned, and an additional fee of \$20 when the degree is conferred.

The examinations for the Master's Degree will be both oral and written, and will be conducted by a committee of the Faculty. An extended thesis, bearing upon some part of the work assigned, will be required in all cases. The candidate should apply to the Registrar for a more detailed statement of the requirements.

THE ENGINEERING DEGREES

The Degrees of Civil Engineer (C.E.), Mechanical Engineer (M.E.), and Electrical Engineer (E.E.) will be conferred upon Bachelors of Science in Engineering who shall have been engaged for not less than three years in successful professional practice in positions of responsibility, and who shall pursue prescribed courses of reading and present acceptable theses upon subjects pertaining to some branch of Engineering. Candidates for these Degrees should apply to the Registrar for a statement of the requirements. The same fees are charged as for the Master's Degree.

HONORARY DEGREES CONFERRED**1888**

WILLIAM HYDE APPLETON, Ph.D. (A.B., Harvard, 1864; A.M., LL.B., Harvard, 1869; Acting President and President of Swarthmore College, 1889-1891), Professor of Greek and of Early English.

SUSAN J. CUNNINGHAM, Sc.D., Professor of Mathematics and Astronomy.

1889

ARTHUR BEARDSLEY, Ph.D. (C.E., Rensselaer Polytechnic Institute, 1867; Professor of Engineering and Director of Mechanic Arts, 1872-1898), Emeritus Professor of Engineering and Librarian of Friends' Historical Library.

ISAAC SHARPLESS, LL.D. (B.S., Harvard, 1873; Sc.D., Univ. of Pa., 1883), President of Haverford College.

1890

OLIVIA RODHAM, A.B. (Assistant Librarian and Instructor in Botany, 1881-1888).

1897

ELIZABETH POWELL BOND, A.M., Dean.

GRADUATES

CLASS OF 1873

- SARAH H. (ACTON) HILLIARD, A.B., 8 Oak St.... Salem, N. J.
HELEN (MAGILL) WHITE, A.B. (Ph.D., Boston
University, 1877) care U. S. Embassy..... Berlin, Germany.
ELIZABETH C. (MILLER) HOLCOMB, A.B..... Charlestown, N. H.
ESTHER T. (MOORE) APPLETON, A.B..... Swarthmore, Pa.
*MARIA C. (PIERCE) GREEN, A.B..... 1877.
LOWNDES TAYLOR, A.B., Box 1990..... West Chester, Pa.

CLASS OF 1874

- ELLEN H. (EVANS) PRICE, A.M., 1884..... Swarthmore, Pa.
AMY W. (HALL) HICKMAN, A.B..... West Chester, Pa.
*ALFRED T. HAVILAND, B.S..... 1874.
MARY (HIBBARD) THATCHER, A.B, 1415 Dela-
ware Ave..... Wilmington, Del.
HERMAN HOOPES, C.E., 1879, 506 Real Estate Trust
Bldg. Philadelphia, Pa.
FERRIS W. PRICE, A.M., 1887..... Swarthmore, Pa.
ELIZABETH S. (WOOLSTON) COLLINS, A.M., 1901.. Swarthmore, Pa.

CLASS OF 1875

- JOHN B. BOOTH, A.B., care J. B. Booth & Co..... Pittsburgh, Pa.
HELEN (COMLY) WHITE, A.B..... Lansdowne, Pa.
*FRANKLIN H. CORLIES, B.S..... 1898.
*HERBERT G. DOW, A.B. (and Harvard, 1877).. 1878.
ELIZABETH (HANES) TAYLOR, A.B..... Woodstown, N. J.
EDITH R. (HOOPER) ROBERTS, A.B..... Titusville, Pa.
BARTON HOOPES, JR., B.S., 1330 Buttonwood St.... Philadelphia, Pa.
*OLIVER KEESE, JR., B.S..... 1879.
*J. REECE LEWIS, B.S..... 1898.
HOWARD W. LIPPINCOTT, A.B., 509 Real Estate
Trust Bldg..... Philadelphia, Pa.
MARTHA (McILVAIN) EASTWICK, A.B., 59th St.
and Elmwood Ave..... Philadelphia, Pa.
JOHN K. RICHARDS, A.B., (and Harvard, 1877),
Solicitor-General of U. S..... Washington, D. C.
WILLIAM H. RIDGWAY, C.E., 1879..... Coatesville, Pa.

* Deceased.

CLASS OF 1876

- FRANK L. BASSETT, B.S. (D.D.S., Phila. Dental College, 1878)..... Swarthmore, Pa.
 ARTHUR W. BRADLEY, A.B., 63 Adelbert St..... Cleveland, Ohio.
 FRANCES (LINTON) SHARPLESS, A.M., 1881 (M.D., Woman's Medical College, Phila., 1886)..... West Chester, Pa.
 ELIZABETH L. (LONGSTRETH) BOYD, A.B..... Haverford, Pa.
 JAMES T. MCCLURE, B.S., Broad St. Station..... Philadelphia, Pa.
 EMMA (MCILVAIN) COOPER, A.B., 715 Cooper St... Camden, N. J.
 EDWIN MITCHELL, JR., A.B. (B.L. and B. S. R., Sorbonne, Paris, 1877)..... Paris, France.
 LUCY R. (PRICE) MCINTIRE, A.B., 1880..... Cynwyd, Pa.
 *ISAAC G. SMEDLEY, B.S., (M.D., Hahnemann Medical College, 1879)..... 1899.
 HERBERT W. SMYTH, A.B. (and Harvard, 1878, Ph.D., Göttingen, 1884), Harvard Univ..... Cambridge, Mass.
 MARY WILLITS, A.M., 1881 (M.D., Woman's Medical College, Phila., 1881), State Hospital..... Norristown, Pa.
 WILLIAM P. WORTH, B.S..... Coatesville, Pa.

CLASS OF 1877

- JOSEPH T. BUNTING, B.S. (LL.B., Univ. of Pa., 1880), 526 Drexel Bldg..... Philadelphia, Pa.
 NORMAN B. CORSON, A.B..... Norristown, Pa.
 EUDORA MAGILL, A.B., 128 W. 43d St..... New York, N. Y.
 *JESSE R. NORTON, A.B. (and Harvard, 1879)..... 1900.
 CARROLL R. WILLIAMS, A.M., 1882 (LL.B. Univ. of Pa., 1880) Stephen Girard Bldg..... Philadelphia, Pa.
 M. FLORENCE YEATMAN, A.M., 1897..... Norway, Pa.

CLASS OF 1878

- CAROLINE E. (BURR) HALL, A.B..... Swarthmore, Pa.
 MAYBELL P. (DAVIS) FOSTER, A.B., 78 Waterman St. Providence, R. I.
 HOWARD DAWSON, A.M., 1882, 70 Albion St..... Somerville, Mass.
 TACY A. (GLEIM) DUNNING, A.B., Stimson Block.. Los Angeles, Cal.
 *WILLIAM J. HALL, B.S..... 1900.
 MARY P. (HALLOWELL) HOUGH, A.M., 1881 (M.D., Woman's Medical College, Phila., 1881)..... Ambler, Pa.
 CHARLES A. HAWKINS, A.B..... York, Pa.
 WILLIAM PENN HOLCOMB, M.L., 1882 (Ph.D., Johns Hopkins Univ., 1886)..... Charlestown, N. H.

- REBECCA S. (HUNT) WHITE, A.M., 1881 (M.D.,
 Woman's Medical College, Phila., 1881).....Lansdowne, Pa.
 ANNA E. (JACKSON) MONAGHAN, B.L.....Swarthmore, Pa.
 LEWELLYN H. JOHNSON, B.S.....Redlands, Cal.
 EDWARD MARTIN, A.M., 1882 (M.D., Univ. of Pa.,
 1883), 415 S. 15th St.....Philadelphia, Pa.
 FRANCIS J. PALMER, B.S., 108 Fulton St.....New York, N. Y.
 ISRAEL ROBERTS, B.S., 211½ Market St.....Camden, N. J.
 *WILLIAM SEAMAN, C.E., 1884.....1892.
 C. HARRY SHOEMAKER, B.S.....Philadelphia, Pa.

CLASS OF 1879

- ISAAC R. COLES, C.E., 1880, 39 Cortlandt St.....New York, N. Y.
 WILLIAM P. FENDER, A.B., 448 Market St.....Williamsport, Pa.
 WILLIAM LEA FERRIS, A.B., Mills Bldg., Room 8,.. San Francisco, Cal.
 JOSEPH FITCH, A.B., 302 Broadway.....New York, N. Y.
 RUTH ANNA FORSYTHE, A.B., 330 N. Orange St... Media, Pa.
 ELIZABETH (FURNAS) BOGARDUS, B.L.....Waynesville, Ohio.
 P. LESLEY HOPPER, A.B. (LL.B., Univ. of Mary-
 land, 1881).....Havre de Grace, Md.
 MARIE ANTOINETTE (KEMP) HOADLEY, A.M., 1892, Swarthmore, Pa.
 ELISHA E. LIPPINCOTT, B.S.,.....Gallitzin, Pa.
 *SAMUEL CRAIG MCCOMB, C.E., 1882.....1891.
 CHARLES R. MILLER, B.L. (LL.B., Univ. of Pa.,
 1881), 1203 Delaware Ave.....Wilmington, Del.
 JOSEPHINE (WHITE) BRECKENS, A.B.....Cheyenne, Wyo.
 ABBY W. (WOODNUTT) MILLER, B.L., 1203 Dela-
 ware Ave.....Wilmington, Del.

CLASS OF 1880

- ANNA E. CONSTABLE, A.B., 325 Vine St.....Camden, N. J.
 ARTHUR COLEMAN DAWSON, B.L., 1882, Lake For-
 est Univ.....Lake Forest, Ill.
 FLORENCE (HALL) PHILIPS, A.B., Rockford... Wilmington, Del.
 MYRA T. HILLMAN, A.B., 227 3d St.....Washington, D. C.
 EMILY L. (HOUGH) SAVIDGE, A.B. (and Univ. of
 Minn., 1881).....Boise, Idaho.
 EDWARD H. KEISER, M.S., 1881 (Ph.D., Johns
 Hopkins Univ., 1884), Washington Univ.....St. Louis, Mo.
 GEORGINE (KURTZ) MUHLENBERG, A.B., 34 N. 4th
 St.Reading, Pa.
 ALBERT R. LAWTON, A.M., 1885.....Chappaqua, N. Y.
 ROBERT J. MARCHER, B.S., C.E., 1901.....Syracuse, N. Y.
 THOMAS L. MOORE, A.B., 102 E. Grace St.....Richmond, Va.

* Deceased.

- ELLEN S. (PRESTON) GRIEST, A.B. Millersville, Pa.
 JOHN TURTON, B.S., 133 Maiden Lane. New York, N. Y.
 FANNIE (WILLETS) LOWTHORP, A.B., 321 Green-
 wood Ave. Trenton, N. J.
 HENRY S. WOOD, C.E., 1883, 106 World Bldg. New York, N. Y.

CLASS OF 1881

- MARTHA BUNTING, B.L. (Ph.D., Bryn Mawr Col-
 lege, 1895), 219 W. 80th St. New York, N. Y.
 WILLIAM CANBY, JR., B.L., 616 Pioneer Press
 Bldg. St. Paul, Minn.
 CHARLES B. DORON, B.L., 33 Vick Park "B" Rochester, N. Y.
 MARY J. ELLIOTT, B.L., 3204 Summer St. Philadelphia, Pa.
 EMMA KIRK, B.L. Ithaca, Pa.
 GERTRUDE B. MAGILL, A.B. England.
 EUGENE PAULIN, JR., A.B. (and Harvard, 1883),
 care *North American*. Philadelphia, Pa.
 MARTHA E. (RHINOEHL) OSBORN, A.B., 1329 Jef-
 ferson St. Philadelphia, Pa.
 EDWARD C. RUSHMORE, B.S. (M.D., Columbia,
 1886) Tuxedo Park, N. Y.
 HENRY B. SEAMAN, C.E., 1884, 44 Union Sq. New York, N. Y.
 CHARLES E. SHARPLESS, C.E., 1884, care Berwind
 White Coal Mining Co. Wimper, Pa.
 ALVIN T. SHOEMAKER, B.L., 146 Broadway. New York, N. Y.
 *I. BYRON THOMAS, B.S. 1891.
 ERNEST F. TUCKER, A.B. (M.D., Harvard, 1884),
 Marquam Bldg. Portland, Ore.

CLASS OF 1882

- WILLIAM LLEWELLYN BANER, A.B. (M.D., Colum-
 bia, 1885), 72 W. 45th St. New York, N. Y.
 EDITH B. BLACKWELL, A.B. (M.D., Woman's Med.
 Col., N. Y. Inf., 1891), 139 W. 64th St. New York, N. Y.
 CHARLOTTE E. (BREWSTER) JORDAN, M.L., 1886. Lansdowne, Pa.
 WILLIAM BUTLER, JR., A.B. West Chester, Pa.
 C. HERBERT COCHRAN, A.B., 1426 N. 52d St. Philadelphia, Pa.
 BERTHA (COOPER) BREWER, B.L., 215 E. Jacoby
 St. Norristown, Pa.
 P. FRANCES FOULKE, A.B., 1709 Race St. Philadelphia, Pa.
 MARY E. (GALE) HIBBARD, A.M., 1891, 176 Pleas-
 ant St. Laconia, N. H.
 *SARAH S. (GREEN) PIERCE, A.B. 1886.

* Deceased.

- MARGARET E. (HALLOWELL) POWELL, A.B. Lansdowne, Pa.
 *ELIZABETH E. HART, B.L. 1891.
 ELIZABETH HASLAM, B.L., 213 N. 33d St. Philadelphia, Pa.
 ELIZABETH M. OGDEN, B.L. Los Angeles, Cal.
 CHARLES PALMER, A.M., 1885, Box 218. Chester, Pa.
 *GEORGE C. PHILLIPS, B.S. 1883.
 HORACE L. ROSSITER, A.B., 42 Lohengrin St. Cleveland, Ohio.
 *CHARLES B. TURTON, B.S. 1896.
 GERRIT E. H. WEAVER, A.B. (and Harvard, 1884),
 A.M., 1886, 916 Farragut Terrace. Philadelphia, Pa.
 EMILY E. (WILSON) LAWTON, A.M., 1885. Chappaqua, N. Y.
 EDGAR M. ZAVITZ, A.B. Coldstream, Ont., Can

CLASS OF 1883

- CHARLES A. BUNTING, B.S. Allentown, Pa.
 *JOHN L. COCHRAN, B.S. 1885.
 EDGAR CONROW, B.L. Moorestown, N. J.
 LYDIA S. (GREEN) HAWKINS, A.B., Idlewild. . . . Media, Pa.
 *FLORENCE N. HANES, A.B. 1897.
 ALICE W. JACKSON, A.B. Swarthmore, Pa.
 WILLIAM A. KISSAM, JR., B. S., 18 Exchange Pl. . . . New York, N. Y.
 BERTHA (MATLACK) RUE, B.L., 578 Washington
 St. Camden, N. J.
 GUION MILLER, A.M., 1888 (LL.B., 1885, and
 LL.M., 1886, Columbian Univ.) Easton, Md.
 S. DUFFIELD MITCHELL, A.B. (LL.B., Univ. of Pa.)
 . Carnegie Bldg. Pittsburgh, Pa.
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 Dorchester Sta. Boston, Mass.
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 CHARLES S. PYLE, B.S. Rising Sun, Md.
 HELEN C. (PYLE) BUNTING, B.L. Allentown, Pa.
 FREDERICK A. SEAMAN, JR., B.S. Madison, N. J.
 ANNIE E. (TYLOR) MILLER, M.L., 1888. Easton, Md.
 JAMES E. VERREE, B.L., Boice Bldg. Chicago, Ill.
 EMMA (WEBB) PRICE, A.B. Rose Valley, Pa.

CLASS OF 1884

- HORACE L. DILWORTH, B.S., Friends' Central
 School Philadelphia, Pa.
 REBECCA M. (DOWNING) BULLOCK, B.L., 6439
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 JOHN M. FURNAS, B.S. Waynesville, Ohio.

* Deceased.

- SARAH L. (HALL) STIRLING, A.B., 1913 E. Cumberland St. Philadelphia, Pa.
 HENRY J. HANCOCK, A.B. (LL.B., Univ. of Pa., 1886), 801 Real Estate Trust Bldg. Philadelphia, Pa.
 EDWIN HAVILAND, JR., B.S., 1885 (A.M., Cornell, 1899) Potsdam, N. Y.
 MARY E. HUGHES, A.B. Hughesville, Va.
 LAURA H. SATTERTHWAITE, A.B. (M.D., Woman's Medical College, Phila., 1888), 45 W. State St. Trenton, N. J.
 FREDERICK J. TAYLOR, B.S., Northern Pacific Headquarters Tacoma, Wash.
 MARY WILLITS, A.B. (M.D., Woman's Medical College, N. Y. Inf., 1898), 227 E. 18th St. New York, N. Y.

CLASS OF 1885

- *MINNIE F. BAKER, A.B. 1901.
 ABIGAIL EVANS, A.B. Cinnaminson, N. J.
 FREDERIC P. MOORE, A.B., 71 Broadway. New York, N. Y.
 MARY D. (PRATT) RHODES, A.B. Bowdle, S. Dak.

CLASS OF 1886

- EMMA S. (BONES) STONE, B.L. New Brighton, N. Y.
 *ARTHUR S. COCHRAN, B.S. 1899.
 GEORGE J. FREEDLEY, B.S., 1900 E. Cary St. Richmond, Va.
 HELEN G. JOHNSON, A.B., 901 W. 4th St. Williamsport, Pa.
 ELLA (MERRICK) TOMLINSON, A.B. Brownsburg, Pa.
 EDGAR M. SMEDLEY, B.S. Media, Pa.
 ROWLAND J. SPENCER, B.L., care Oregon Land Co., Salem, Ore.
 MARTHA M. (WATSON) SUTPHEN, A.M., 1891, 150 W. 14th St. Holland, Mich.
 C. PERCY WILLCOX, B.S. (Ph.B., Yale Univ., 1887; LL.B., Univ. of Pa., 1891), Betz Bldg. Philadelphia, Pa.

CLASS OF 1887

- ALICE T. (BATTIN) LEWIS, A.B. Rumford Falls, Me.
 HARRIET J. (COX) McDOWELL, B. S., 144 W. 13th St. New York, N. Y.
 HORACE DARLINGTON, B.S. Darling, Pa.
 HARRY B. GOODWIN, B.S. Bordentown, N. J.
 ANNA M. (JENKINS) WEBSTER, A.B., 808 S. 2d St. Mankato, Minn.

- T. ATKINSON JENKINS, A.B. (Ph.B., Univ. of Pa., 1888; Ph.D., Johns Hopkins Univ., 1894),
5437 Kimbark Ave.....Chicago, Ill.
FREDERICK K. LANE, B.S., 9215 Commercial Ave...Chicago, Ill.
LINDA B. (PALMER) JONES, A.M., 1893, 802 Wash-
ington St.....Wilmington, Del.
HORACE ROBERTS, A.B.....Fellowship, N. J.
ELIZABETH B. (SMEDLEY) REYNOLDS, A.M., 1896..Malvern, Pa.
ELIZABETH B. (SMITH) WILSON, A.B.....Purcellville, Va.
WILLIAM G. UNDERWOOD, B.S., 1133 S. Broad St..Philadelphia, Pa.

CLASS OF 1888

- ALICE M. ATKINSON, A.B. (and Cornell Univ., 1889; Ph.D., Univ. of Pa., 1895), Maison
MerlinAthens, Greece.
T. JANNEY BROWN, B.S., 1003 F St., N. W.....Washington, D. C.
*FRANK CAWLEY, C.E., 1891.....1896.
JESSIE L. COLSON, B.S.....Woodstown, N. J.
SADIE M. (CONROW) HUTCHINSON, A.B., 46 West-
ervelt Ave.....Plainfield, N. J.
WILLIAM L. DUDLEY, B.S.....New York, N. Y.
ROBERT P. ERVIEN, B.S.....Clayton, N. M.
E. LAWRENCE FELL, B.S., 3639 N. 15th St.....Philadelphia, Pa.
JOYEUSE L. (FULLERTON) SWEET, A.B. (and Cor-
nell Univ., 1889), 1370 Gilpin St.....Denver, Col.
EMMA (GAWTHROP) HAYES, B.S.....Swarthmore, Pa.
ALICE (HALL) PAXSON, A.B.....Swarthmore, Pa.
P. SHARPLES HALL, B.S. (M.D., Hahn. Med. Col.,
Phila., 1891), 1604 Arch St.....Philadelphia, Pa.
WALTER HANCOCK, B.S., 40th St. and Lancaster
AvePhiladelphia, Pa.
JOHN RUSSELL HAYES, A.B. (and Harvard, 1889;
LL.B., Univ. of Pa., 1892).....Swarthmore, Pa.
MARTHA P. (JONES) MILLER, A.B., 2117 N. 3d St.. Harrisburg, Pa.
T. MONTGOMERY LIGHTFOOT, M.S., 1890 (Ph.D.,
Univ. of Pa., 1893), 5935 Green St., German-
townPhiladelphia, Pa.
HETTY C. (LIPPINCOTT) MILLER, A.B.....Riverton, N. J.
ELLIS P. MARSHALL, JR., B.S.....London Grove, Pa.
WILLIAM S. MARSHALL, B.S. (Ph.D., Leipsic,
1892), 116 E. Gorham St.....Madison, Wis.
AARON C. PANCOAST, B.S.....San Antonio, Texas.
JESSIE PYLE, A.B. (and Cornell Univ., 1889).....London Grove, Pa.

* Deceased.

- JOSEPH J. RHOADS, B.S. Jamesburg, N. J.
 CATHERINE M. RIDER, B.L., 813 Franklin St. Wilmington, Del.
 WILLIAM H. SEAMAN, B.S. Glen Cove, N. Y.
 AMELIA SKILLIN, A.B., 103 Potsdamerstrasse. Berlin, Germany.
 CARROLL H. SUDLER, A.B., 1127 Monadnock Block, Chicago, Ill.
 CHARLOTTE M. WAY, B.S. (A.B., Leland Stan-
 ford, Jr., Univ.), 64 W. 109th St. New York, N. Y.
 ANNIE E. WILLITS, A.B. Syosset, N. Y.
 ESTHER M. (WILLITS) FELL, B.L., 3639 N. 15th
 St. Philadelphia, Pa.
 FRANKLIN P. WILSON, A.B., 1320 F St., N. W. Washington, D. C.

CLASS OF 1889

- JUSTIN K. ANDERSON, B.S. Thacker, W. Va.
 ALEXANDER G. CUMMINS, JR., A.B. (A.M., Colum-
 bia, 1898) Poughkeepsie, N. Y.
 HOWARD A. DILL, B.S. (and Mass. Inst. Tech.,
 1891) Richmond, Ind.
 HORACE B. FORMAN, JR., B.S., 222 W. 49th St. New York, N. Y.
 ELLIS M. HARVEY, B.S. (M.D., Univ. of Pa.,
 1893) Media, Pa.
 CLARA HAYDOCK, B.L. Locust Valley, N. Y.
 J. CARROLL HAYES, A.B. (and Harvard, 1890),
 (LL.B., Univ. of Pa., 1893) West Chester, Pa.
 JULIA HICKS, B.S., 645 Carlton Ave. Brooklyn, N. Y.
 MARY KIRK, A.B., Bureau of the American Re-
 publics Washington, D. C.
 MARGARET J. (LAURIE) SEAMAN, A.B. Glen Cove, N. Y.
 GEORGE A. MASTERS, B.S., 3308 Baring St. Philadelphia, Pa.
 ALICE S. PALMER, A.B., 215 E. 15th St. New York, N. Y.
 LOUELLA (PASSMORE) HAYES, A.B. West Chester, Pa.
 FREDERICK B. PYLE, B.S., 1345 T St., N. W. Washington, D. C.
 RALPH STONE, A.B. (LL.B., Univ. of Mich., 1892),
 1305 Majestic Bldg. Detroit, Mich.
 ELSIE D. (STONER) WILDES, B.L. Everett, Wash.
 WILLIS W. VAIL, B.S. Plainfield, N. J.
 JENNIE F. WADDINGTON, M.S., 1892. Salem, N. J.

CLASS OF 1890

- ALVAN W. ATKINSON, A.B. (M.D., Hahnemann
 Med. College, Phila., 1893), 428 E. State St. Trenton, N. J.
 SARA H. ATKINSON, A.B. Holicong, Pa.
 GEORGE H. BARTRAM, B.S. Lenape, Pa.
 MARTHA M. BIDDLE, B.L. Riverton, N. J.

- EMMA J. BROOMELL, B.S. (and Univ. of Mich., 1893), 2128 Bolton St..... Baltimore, Md.
 MORRIS L. CLOTHIER, B.S., 8th and Market Sts.... Philadelphia, Pa.
 BEULAH W. (DARLINGTON) PRATT, A.B., 305 N. High St..... West Chester, Pa.
 EDWARD DARLINGTON, B.S..... Chadd's Ford Junc., Pa.
 GEORGE ELLSLER, A.B., "The Alvord"..... East Orange, N. J.
 CAROLINE R. GASTON, A.M., 1895, 1613 N. 17th St.. Philadelphia, Pa.
 JOHN C. GIFFORD, B.S., 1893 (D. Cæc., Univ. of Munich, 1899)..... Ithaca, N. Y.
 ABBY M. HALL, A.B. (and Cornell Univ., 1893).. Swarthmore, Pa.
 CLARA A. (HUGHES) MARSHALL, A.B., 324 N. Carroll St..... Madison, Wis.
 SAMUEL R. LIPPINCOTT, B.S., 1021 Walnut St.... Philadelphia, Pa.
 WILLIAM D. LIPPINCOTT, B.S., 35 N. 2d St..... Camden, N. J.
 *WILLARD L. MARIS, M.S., 1892 (B.S., Univ. of Mich., 1891; M.D., Univ. of Pa., 1895)..... 1895.
 ROBERT S. MCCONNELL, B.S., 2112 Ontario St., Tioga..... Philadelphia, Pa.
 FRANCES E. OTLEY, A.B., 1207 Jacinto St..... Austin, Texas.
 *MARY D. PALMER, A.B..... 1892.
 MARY E. PANCOAST, B.L., 932 B St., S. W..... Washington, D. C.
 JAMES W. PONDER, A.B., 909 Market St..... Wilmington, Del.
 ELLIS B. RIDGWAY, B.S..... Coatesville, Pa.
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 RICHARD C. SELLERS, B.S..... Swarthmore, Pa.
 FRANCES B. (SMITH) HERR, A.B..... Moorestown, N. J.
 MARY F. (SOPER) PANCOAST, B.S..... San Antonio, Texas.
 R. BARCLAY SPICER, A.B., Franklin College..... New Athens, Ohio.
 WILLIAM E. SWEET, A.B., 1370 Gilpin St..... Denver, Col.
 ALICE W. TITUS, M.L., 1892..... Old Westbury, N. Y.
 MARY H. (WHITE) BARTRAM, A.B..... Lansdowne, Pa.

CLASS OF 1891

- EMILY ATKINSON, A.B..... Moorestown, N. J.
 COSMELIA J. (BROWN) HUGHES, B.L..... Hughesville, Va.
 LOUIS P. CLARK, B.S..... Ridley Park, Pa.
 HANNAH H. (CLOTHIER) HULL, B.L..... Swarthmore, Pa.
 EVA M. (DANIELS) CAPEN, B.S., 1892, 534 E. 4th St. East Boston, Mass.
 ELIZA R. HAMPTON, A.B..... Waverly, N. Y.
 ISAAC O. HARPER, B.S., 1608 Bolton St..... Baltimore, Md.
 ESTHER (HAVILAND) CORNELL, B.L., 307 6th Ave.. Brooklyn, N. Y.

* Deceased.

ELIZA G. (HOLMES) BENNETT, A.B.....	George School, Pa.
JOHN W. HUTCHINSON, JR., B.S., Mutual Life Bldg.	New York, N. Y.
DORA LEWIS, B.L.....	Media, Pa.
*LUCY S. LIPPINCOTT, A.B.....	1891.
CHESTER P. MARTINDALE, B.L.....	West Chester, Pa.
HARRY L. McDONALD, B.S., 1005 Locust St.....	Kansas City, Mo.
SARAH T. (MOORE) ADAMS, B.L.....	Sandy Spring, Md.
A. MITCHELL PALMER, A.B.....	Stroudsburg, Pa.
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WILLIAM C. SPROUL, B.S.....	Chester, Pa.
EDWARD B. TEMPLE, B.S.....	Lansdowne, Pa.
KATHARINE L. (TYLER) MEHAFFEY, B.S., "The Berkley"	Boston, Mass.
FRANCES M. WHITE, B.L., 823 Park Ave.....	Baltimore, Md.
EDWARD C. WILSON, B.S., Friends' Central School, 15th and Race Sts.....	Philadelphia, Pa.
M. LILIAN (YARNALL) DE COU, A.B.....	Trenton Junction, N. J.

CLASS OF 1892

M. ELLEN (ATKINSON) JENKINS, B.L., 537 Maple Ave.	Oak Park, Ill.
M. ROSAMOND (BAKER) HAINES, A.B.....	Swarthmore, Pa.
BENJAMIN F. BATTIN, A.B., (Ph.D., Jena, 1900)	Swarthmore, Pa.
JOSEPHINE BEISTLE, A.B.....	Swarthmore, Pa.
MARY E. BROOMELL, B.L., 2128 Bolton St.....	Baltimore, Md.
FREDERIC N. CARR, A.B., 215 Shrewsbury St.....	Charleston, W. Va.
HOWARD N. EAVENSON, C.E., 1897.....	Uniontown, Pa.
HENRY H. GARRETT, B.S.....	Wallingford, Pa.
HOWARD B. GREEN, B.S.....	Swarthmore, Pa.
CHARLES HART, B.S.....	Doylestown, Pa.
ANNIE HILLBORN, B.L.....	Swarthmore, Pa.
EDWARD A. JENKINS, B.S, 537 Maple Ave.....	Oak Park, Ill.
CHARLES B. KETCHAM, A.B., 1893, 80 Broadway...	New York, N. Y.
PHEBE H. (KETCHAM) McALLISTER, B.S.....	Colorado Springs, Col.
HENRY McALLISTER, JR., B.L.....	Colorado Springs, Col.
BERNARD S. McILVAIN, B.L.....	Churchville, Md.
JOHN S. MURRAY, B.S., 3703 Woodland Ave.....	Philadelphia, Pa.
ELLEN PYLE, A.B.....	London Grove, Pa.
MARY E. STEBBINS, B.L., 2115 Maryland Ave.....	Baltimore, Md.
JOSEPH J. WALKER, B.S., 330 E. 17th St.....	New York, N. Y.

* Deceased.

WILLIAM E. WALTER, B.S. Wallingford, Pa.
 FLORENCE N. WOLVERTON, A.B. Vancouver, Wash.
 MARY L. (WOLVERTON) GREEN, A.B. Swarthmore, Pa.

CLASS OF 1893

JANE ATKINSON, A.B. Holi:ong, Pa.
 GEORGE H. BROOKE, B.S. (Ph.B., Univ. of Pa., 1895;
 LL.B., Univ. of Pa., 1898), 807 Land Title
 Bldg. Philadelphia, Pa.
 FRANCIS E. BROOMELL, B.S., 496 Monroe St. Chicago, Ill.
 JOHN L. CARVER, B.L., Friends' Central School,
 15th and Race Sts. Philadelphia, Pa.
 JOSEPH T. FREEMAN, C.E., 1899, 18 Phelps Ave. Rochester, N. Y.
 DORA A. GILBERT, A.B., Broad St. Chester, Pa.
 CHARLES S. HALLOWELL, B.S., 166 Remsen St. New York, N. Y.
 *CLEMMENT LODGE, B.S. 1895.
 LORENA B. MATLACK, A.B. West Chester, Pa.
 CARLIE McCLURE, A.B., Friends' Academy. Locust Valley, N. Y.
 OMAR B. PANCOAST, B.S. (M.D., Johns Hopkins
 Univ., 1897), Union Protestant Infirmary. Baltimore, Md.
 JESSE H. REINHARDT, B.S., 120 N. 8th St. Lebanon, Pa.
 ESTHER E. SPICER, B.L., Johns Hopkins Hospital. Baltimore, Md.
 JULIUS STAAB, A.B. Chicago, Ill.
 JOHN B. STETSON, B.S. (M.D., Med. Chi. Col.,
 Phila., 1896), 1329 Spruce St. Philadelphia, Pa.
 FRANCES B. (STEVENSON) PETTUS, A.B., 273
 Washington St. Atlanta, Ga.
 GEORGE H. STROUT, A.B., 7 W. 92d St. New York, N. Y.
 ESTHER H. SUTTON, B.L. Chappaqua, N. Y.
 HENRY C. TURNER, B.S., 50 Pineapple St. Brooklyn, N. Y.
 CARRIE B. WAY, B.L., Abington Friends' School, Jenkintown, Pa.
 LILA K. WILLETS, B.L. Roslyn, N. Y.
 E. NEWLIN WILLIAMS, B.S. (M.D., Univ. of Pa.,
 1898), care Thomas Cook & Son. Paris, France.
 S. ELLEN (WILLIAMS) BATTIN, B.S. Swarthmore, Pa.
 GENEVIEVE S. ZANE, A.B., 1894, 342 W. Miner St. West Chester, Pa.

CLASS OF 1894

MABEL ALEXANDER, B.L., 1434 N. 18th St. Philadelphia, Pa.
 ANNA S. (ATKINSON) SELLERS, A.B. Swarthmore, Pa.
 LYDIA BIDDLE, B.L., Johns Hopkins Hospital. Baltimore, Md.
 EDWIN P. BOND, A.B., 1104 Spruce St. Philadelphia, Pa.
 BERTHA L. BROOMELL, B.S., 808 Washington St. Wilmington, Del.

* Deceased.

- EMMA S. (CHAMBERS) WHITE, A.B., "Hotel Luray," Atlantic City, N. J.
 ELIZABETH CONROW, A.B. Ithaca, N. Y.
 HERMAN CONROW, C.E., 1897, 165 Cleveland St. Orange, N. J.
 ALTHA T. COONS, B.S., 1906 H St., N. W. Washington, D. C.
 ESTHER L. COX, B.L., 1516 Linden Ave. Baltimore, Md.
 JOSEPH C. EMLEY, B.S., 3409 N. 17th St. Philadelphia, Pa.
 FREDERIC H. GAWTHROP, B.S., 2515 W. North Ave., Baltimore, Md.
 JOHN W. GREGG, B.L., Friends' School, Park Ave. and Laurens St. Baltimore, Md.
 GEORGE G. GRIEST, B.S., 195 Broadway. New York, N. Y.
 MARY A. (HAYES) GAWTHROP, A.B., 2515 W. North Ave. Baltimore, Md.
 HELEN R. HILLBORN, A.B. Swarthmore, Pa.
 HELEN S. (HUTCHINSON) CAPLES, B.S., 78 S. 3d St. Columbus, Ohio.
 MARY B. (JANVIER) PUGH, B. L. Lansdowne, Pa.
 HARRIET M. (KENT) HILTON, A.B. Swarthmore, Pa.
 HELEN P. (LAMB) HULL, B.L., 232 Laurens St. Baltimore, Md.
 M. ELIZABETH LAMB, B.L., 1432 McCulloh St. Baltimore, Md.
 OWEN MOON, JR., B.S. Trenton, N. J.
 MARION D. (PERKINS) JESSUP, A.B. Moorestown, N. J.
 MARGARET D. PFAHLER, B.S., 4046 Walnut St. Philadelphia, Pa.
 DAVID B. RUSHMORE (M.E., Cornell Univ., 1895), C.E., 1897, care Stanley Electric Co. Pittsfield, Mass.
 CAROLINE P. (SARGENT) WALTER, A.B. Wallingford, Pa.
 PHILIP SELLERS, C.E., 1897. Meriden, Conn.
 CORNELIA J. SHOEMAKER, B.L., 226 E. 16th St. New York, N. Y.
 EDWARD A. STAAB, A.B. (and Harvard, 1896) Norristown, Pa.
 MARY W. TITUS, B.L. Old Westbury, N. Y.
 HELEN (TRAIN) TANNEHILL, B.S., 1895. McConnellsville, Ohio.
 DANIEL UNDERHILL, JR., B.S. Jericho, N. Y.
 MARY UNDERHILL, M.S., 1895. Wallingford, Conn.
 ALLEN K. WHITE, B.S., "Hotel Luray" Atlantic City, N. J.
 STUART WILDER, B.S. Chestoa, Tenn.
 JOHN M. WILLIS, B.S., 3601 Sansom St. Philadelphia, Pa.
 MARY E. YEO, B.S., 1326 Catalina St. Los Angeles, Cal.
 *SUSANNA S. YEO, B. L. 1895.
 HARRY P. YOUNG, B.S. Morton, Pa.

CLASS OF 1895

- FRANK C. ANDREWS, B.S. (M.E., Cornell, 1897) ... Woodstown, N. J.
 ELIZABETH M. BAILY, B.S., 902 Swede St. Norristown, Pa.

* Deceased.

- WILLIAM S. BARKER, B.S. Lansdowne, Pa.
 HENRY E. BEAN, B.S., 822 N. Illinois St. Indianapolis, Ind.
 HILDEGARD BROOKS, B.S. Newburgh, N. Y.
 FRANCES W. (CHEAIRS) MANNING, B.L., 110
 Greenwood Ave. Trenton, N. J.
 WALTER CLOTHIER, B.L. Wynnewood, Pa.
 MAY GIFFORD, B.L. Princeton, N. J.
 ANNA R. H. (HARRISON) WHINFIELD, B.L. Sea Breeze, Fla.
 MARY B. (HOLLINGSHEAD) HANCOCK, A.B., 33 N.
 34th St. Philadelphia, Pa.
 EMMA S. (HUTCHINSON) CONROW, B.L., 165
 Cleveland St. Orange, N. J.
 ROLAND G. KENT, A.M., 1898; B.L., 1896, 1411
 Van Buren St. Wilmington, Del.
 JOHN A. LAFORE, C.E., 1898; E.E., 1901. Overbrook, Pa.
 C. IRVINE LEIPER, B.S., 1896. Wallingford, Pa.
 EGBERT P. LINCOLN, B.S., 1228 V St., N. W. Washington, D. C.
 BERTHA (LIPPINCOTT) PARRISH, B.L. Riverton, N. J.
 EDGAR LIPPINCOTT, B.S. Riverton, N. J.
 JOSEPH R. LIPPINCOTT, A.B. Moorestown, N. J.
 ELIZABETH B. MILLER, A.M., 1900. Media, Pa.
 CHARLES S. MOORE, B.L., 131 St. James Pl. Atlantic City, N. J.
 SAMUEL C. PALMER, A.B. Swarthmore, Pa.
 LYDIA M. PARRY, A.B. Hainesport, N. J.
 ALFRED E. PFAHLER, B.S., 4046 Walnut St. Philadelphia, Pa.
 M. ELIZABETH (POWELL) WALTON, B.L. Christiansa, Pa.
 *FRANK L. PRICE, A.B. 1896.
 ARTHUR H. SCOTT, B.S., care Scott Paper Co. Philadelphia, Pa.
 JANE C. (SHAW) HEPBURN, B.L. Avondale, Pa.
 HELEN B. SMITH, A.M., 1899. Media, Pa.
 G. EDMUND STRATTAN, B.S., 1427 11th Ave. Altoona, Pa.
 WILLIAM H. WANZER, A.B. Pawling, N. Y.
 EMMA A. (WASLEY) SNYDER, B.L. Philadelphia, Pa.
 HOWARD WHITE, JR., C.E., 1900 (M.S., Univ. of
 Mich., 1896), "Hotel Traymore" Atlantic City, N. J.
 ALICE P. WILLITS, A.B. Jericho, N. Y.
 ALBERT T. YARNALL, B.L., Manor School. Stamford, Conn.

CLASS OF 1896

- MARY S. BARTRAM, A.B. London Grove, Pa.
 WILLIAM I. BATTIN, A.B., 100 Groveland Ave. Chicago, Ill.
 LEOPOLD W. BIERWIRTH, B.S. Dover, N. J.
 MELLIE E. BISHOP, B.L., 608 E. Douglass St. Bloomington, Ill.

* Deceased.

- ALBERT L. BUFFINGTON, A.B. Rising Sun, Md.
 CAROLIEN H. CHAMBERS, B.L. Unionville, Pa.
 CHARLES CHANDLER, B.S. Bushnell, Ill.
 WILLIAM B. CHAPIN, B.S., 122 Fort Green Pl. Brooklyn, N. Y.
 ISAAC H. CLOTHIER, JR., A.B. Wynnewood, Pa.
 FRANCES DARLINGTON, A.B. Glen Mills, Pa.
 AIDA T. EVANS, B.L. Malvern, Pa.
 GEORGE B. FERRIER, JR., B.S. Moorestown, N. J.
 *E. HARPER FIRTH, C.E., 1899. 1901.
 HARRIE H. FOUSE, B.S., 1898, 4335 Pine St. Philadelphia, Pa.
 SYLVESTER S. GARRETT, B.S., "The Colonial," 11th
 and Spruce Sts. Philadelphia, Pa.
 T. RUSSELL GLEIM, B.S. Lansdowne, Pa.
 ELLEN (GUNTON) GUNNISON, A.B. Merchantville, N. J.
 HALLIE H. (HAINES) HODGE, B.L., 829 S. 49th St. Philadelphia, Pa.
 VIOLETTE T. HAINES, A.B. Rising Sun, Md.
 CHARLES G. HODGE, B.L., 829 S. 49th St. Philadelphia, Pa.
 IOLENE M. (HOLLENSHEAD) SMITH, A.B. Kenwood, Cal.
 HOWARD COOPER JOHNSON, B.L. (LL.B., Univ. of
 Pa., 1899), 709 Walnut St. Philadelphia, Pa.
 CHARLES KAIGHN, B.S., care Engineers' Dept.,
 C. O. & G. R. R. Mobetie, Texas.
 PHILIP S. KNAUER, A.B., 4 Weybosset St. Providence, R. I.
 MARY C. McALLISTER, A. B., 419 N. Cascade Ave. Colorado Springs, Col.
 MARY S. McDOWELL, A.B., 231 W. 135th St. New York, N. Y.
 ARABELLA E. MOORE, B.L., 2013 Arch St. Philadelphia, Pa.
 WILLIAM J. MORRISON, B.S., 64 Prospect Ave. Trenton, N. J.
 PERCIVAL PARRISH, B.L., 20th St. and Washing-
 ton Ave. Philadelphia, Pa.
 N. WILMER PLUMMER, B.S. Mount Pleasant, Md.
 CHARLES A. SHOOLEY, B.S. Dundas, Ont., Can.
 MARY T. SHOEMAKER, B.L. George School, Pa.
 J. CHAUNCEY SHORTLIDGE, A.B. (and Harvard,
 1898) Concordville, Pa.
 LAURETTA T. SMEDLEY, A.B., Friends' Central
 School, 15th and Race Sts. Philadelphia, Pa.
 A. ELLA SPICER, A.B., 108 W. Huntingdon St. Baltimore, Md.
 ALBERT H. TAYLOR, B.S., 1745 Diamond St. Philadelphia, Pa.
 FRANKLIN D. WALTON, B.L. London Grove, Pa.
 JOHN E. WELLS, M.L., 1899 (A.M., Columbia,
 1900), Hiram College. Hiram, Ohio.
 HANSON Z. WILSON, C.E., 1899, care Erie R. R. Bradford, Pa.
 KETURAH E. YEO, B.S., 1326 Catalina St. Los Angeles, Cal.

CLASS OF 1897

- SARAH (BANCROFT) CLARK, B.S.....Street, England.
 FREDERIC D. BARBER, B.S.....Normal, Ill.
 MARY E. BARTLESON, B.L., 703 Highland Ave.....Chester, Pa.
 REUBEN G. BENNETT, B.S.....George School, Pa.
 FRANK G. BLAIR, B.S.....Charleston, Ill.
 GRACE A. (BROSIUS) BIDDLE, B.L., 617 Ivy St.....Pittsburgh, Pa.
 THOMAS CAHALL, B.L. (LL.B., Univ. of Pa.,
 1900), 1218 Witherspoon Bldg.....Philadelphia, Pa.
 DAISY R. CORSON, B.S. (M.D., Woman's Medical
 College, Phila., 1901), Woman's Hospital....Philadelphia, Pa.
 JARED W. DARLINGTON, B.S.....Darling, Pa.
 WALTER C. DE GARMO, B.S.....Ithaca, N. Y.
 GERRY B. DUDLEY, A.B., 123 E. 28th St.....New York, N. Y.
 IOLA K. EASTBURN, B. L., Friends' Central School,
 15th and Race Sts.....Philadelphia, Pa.
 JESSIE D. ELLIS, B.L., 304 N. 35th St.....Philadelphia, Pa.
 GEORGE GLEIM, JR., B.S.....Lansdowne, Pa.
 MARIETTA HICKS, B.L.....Westbury Station, N. Y.
 CLARENCE B. HOADLEY; B.S., "The Newport," 16th
 and Spruce Sts.....Philadelphia, Pa.
 EDITH H. JOHN, B.L.....Media, Pa.
 FREDERIC S. LARISON, A.B.....El Paso, Ill.
 NELLIE LODGE, B.S., 1623 Race St.....Philadelphia, Pa.
 ROBERT E. MANLEY, B.S.....York, Pa.
 WALKER MATTESON, A.B.....Roslyn, N. Y.
 LAURA C. (MILLER) CURRY, A.B., 62 W. 89th St..New York, N. Y.
 HERBERT L. NOXON, B.S., care Globe Oil Co.....Barkersville, Cal.
 ELLWOOD C. PARRY, M.L., 1900.....Wyncote, Pa.
 ROBERT PYLE, A.B.....West Grove, Pa.
 SAMUEL RIDDLE, B.S.....Media, Pa.
 MIRIAM SENER, B.L., 233 Charlotte St.....Lancaster, Pa.
 BERTHA J. SMITH, B.L.....Lincoln, Va.
 MARSHALL P. SULLIVAN, B.L.....Moorestown, N. J.
 HENRIETTA F. WANZER, A.B.....Westbury, N. Y.
 CHANNING WAY, A.B.....West Chester, Pa.
 HOWARD J. WEBSTER, B.S., care Colorado Fuel &
 Iron Co.....Pueblo, Col.
 LYDIA P. (WILLIAMS) ROBERTS, B.L., 26 S. 18th
 St.Philadelphia, Pa.
 JOSEPH A. WILLIS, B.S.....Fowling Creek, Md.

CLASS OF 1898

- CHARLES T. BROWN, A.B. (and Harvard, 1899),
care Morley Pharmaceutical Co., N. E. cor.
16th and Chestnut Sts..... Philadelphia, Pa.
- HIRAM D. CAMPBELL, B.S. 317 Ann St..... Homestead, Pa.
- EVA E. (FOSTER) FIRTH, B.L., "The Hedges,"... Lancaster, Pa.
- A. VIRGINIA (GILLESPIE) VISKNISKKI, B.L., 4720
Kingsessing Ave..... Philadelphia, Pa.
- MABEL A. HARRIS, B.L..... Etna, N. H.
- JONATHAN Y. HIGGINSON, B.S., 215 E. 15th St... New York, N. Y.
- MARY S. HOWELL, A.B..... Mt. Ephraim, N. J.
- RACHEL KNIGHT, B.L..... Somerton, Pa.
- EDITH LAMB, B.L..... Govanstown, Md.
- CAROLINE A. LUKENS, B.L..... Swarthmore College.
- WILLIAM B. MILLER, C.E., 1901 (M.E., Cornell,
1899), 16 Niagara St..... Pittsburgh, Pa.
- ALBERT COOK MYERS, M.L., 1901..... Swarthmore College.
- EDNA M. NICHOLL, B.L..... Scotch Plains, N. J.
- ARTHUR L. PATTON, B.S..... Port Collins, Col.
- S. EDNA POWNALL, B.L..... Christiana, Pa.
- EDNA H. RICHARDS, B.L..... Salem, Ohio.
- ARTHUR C. SMEDLEY, B.S., Friends' Seminary,
Rutherford Place..... New York, N. Y.
- ELY J. SMITH, B.L..... Doylestown, Pa.
- LEVI S. TAYLOR, B.S., Friends' School, 4th and
West Sts..... Wilmington, Del.
- FREDERIC L. THOMAS, B.S..... Ashton, Md.
- ABNER P. WAY, B.S. (M.D., Hahnemann, 1901).. Malvern, Pa.
- ALICE WITBECK, B.L..... Berlin, Germany.

CLASS OF 1899

- MARY E. ARMSTRONG, B.L..... Lansdowne, Pa.
- MARY G. BALL, B.L..... Merchantville, N. J.
- RICHARD J. BOND, B.S., 18 E. Kinney St..... Newark, N. J.
- LEVIS M. BOOTH, B.S., 215 E. 15th St..... New York, N. Y.
- ANNA BRADBURY, B.L., 308 N. 14th St..... Richmond, Ind.
- JOHN P. BROOMELL, A.B., Univ. of Wisconsin... Madison, Wis.
- EMILY W. CARTER, B.L., Penna. Hospital..... Philadelphia, Pa.
- CALVIN F. CROWELL, B.S..... Moorestown, N. J.
- ANNA B. EISENHOWER, A.B..... Norristown, Pa.
- EDITH FLITCRAFT, A.B..... Woodstown, N. J.
- HELEN M. FOGG, B.L., 1114 Mt. Vernon St..... Philadelphia, Pa.
- MABEL C. GILLESPIE, B.L., 1310 Western Ave.... Allegheny, Pa.

GILBERT L. HALL, A.B., Galiano.....	Benguet, Luzon, P. I.
A. DAVIS JACKSON, B.S., Friends' Academy.....	Locust Valley, N. Y.
M. KATHARINE LACKEY, B.L.....	Atlantic City, N. J.
MARY G. LEIPER, B.L., 77 Königgrätzerstrasse....	Berlin, Germany.
JANE E. LINVILL, B.L., 1931 Gratz Ave.....	Philadelphia, Pa.
ALICE LIPPINCOTT, B.L.....	Riverton, N. J.
WALTER H. LIPPINCOTT, B.S.....	Riverton, N. J.
ANNIE LODGE, B.S.....	Kennett Square, Pa.
HELEN S. MOORE, B.L., 131 St. James Place.....	Atlantic City, N. J.
MARSHALL PANCOAST, B.L., Friends' Academy....	Locust Valley, N. Y.
ANNIE B. PARRISH, B.L.....	Woodbury, N. J.
MARY E. SEAMAN, A.B., High School.....	West Chester, Pa.
BENJAMIN A. THOMAS, A.B., 3445 Walnut St....	Philadelphia, Pa.
EMILY R. UNDERHILL, B.L., Friends' Academy....	Locust Valley, N. Y.
J. SERRILL VERLENDEN, B.S.....	Darby, Pa.
ELIZABETH E. WILLITS, B.L.....	Glen Cove, N. Y.

CLASS OF 1900

BIRD T. BALDWIN, B.S.....	Moorestown, N. J.
LUCY BANCROFT, A.B.....	Wilmington, Del.
GEORGE L. BEAN, B.S., 1729 N. 19th St.....	Philadelphia, Pa.
A. MARY BROWN, B.L.....	Cornwall, N. Y.
ROBERT L. BROWNFIELD, JR., B.S., 37 W. 32d St....	New York, N. Y.
FLORENCE E. CHRISTY, B.L.....	Bloomfield, Ont., Can.
CAROLINE F. COMLY, B.L., 3311 Arch St.....	Philadelphia, Pa.
PAUL DARLINGTON, B.S.....	Darling, Pa.
MARGARET EVES, B.L., 17th St. and Girard Ave..	Philadelphia, Pa.
ROGER B. FARQUHAR, JR., B.S., 9 E. 39th St.....	New York, N. Y.
ANNA GILLINGHAM, A.B. (and Radcliffe, 1901), Friends' Central School, 15th and Race Sts....	Philadelphia, Pa.
JOSEPH C. HAINES, B.L.....	Mickleton, N. J.
EDMUND A. HARVEY, A.B.....	Brandywine Summit, Pa.
MARY S. HAVILAND, B.L. (A.B., Radcliffe, 1901), 41 Union Park.....	Boston, Mass.
CAROLINE L. HAWKE, A.B.....	Piedmont, Ala.
ANNA K. HIMES, B.L.....	New Oxford, Pa.
ANNA C. HOLMES, B.L., 1930 Chestnut St.....	Philadelphia, Pa.
OTLEY E. JACKSON, B.S.....	Nine Points, Pa.
GEORGE M. LAMB, JR., B.S., 106 South St.....	Baltimore, Md.
ANNA H. LIPPINCOTT, B.L.....	Riverton, N. J.
ALICE M. LUKENS, B.S.....	Swarthmore, Pa.
JESSIE M. LUKENS, B.L.....	Swarthmore, Pa.
EDNA M. MILLER, B.L., 236 W. Chestnut St.....	Lancaster, Pa.
E. MAE MYERS, B.L.....	Langhorne, Pa.
GEORGIA COOK MYERS, B.L.....	Langhorne, Pa.

KATHARINE PFEIFFER, B.L.	Merchantville, N. J.
MARGERY PYLE, A.B.	London Grove, Pa.
HELEN T. SULLIVAN, B.L.	Moorestown, N. J.
WILLIAM H. THATCHER, B.S., 1415 Delaware Ave.	Wilmington, Del.
J. ETHEL THOMPSON, B.L., 2119 Maryland Ave.	Baltimore, Md.

CLASS OF 1901

EMILY M. ATKINSON, A.B.	Woodbury, N. J.
SUSAN E. ATKINSON, B.L.	Earlington, Ky.
HENRY N. BENKERT, B.S.	Morton, Pa.
FANNY B. CHENEY, A.B.	Media, Pa.
ELIZABETH DINSMORE, B.L., 424 W. Cheltenham Ave., Germantown	Philadelphia, Pa.
J. EDWARD DOWNING, B.L.	East Norwich, N. Y.
DEBORAH H. FERRIER, B.S.	Moorestown, N. J.
MAY K. FLANNERY, B.L., 300 W. 75th St.	New York, N. Y.
PERCIVAL M. FOGG, B.S., 1106 Mt. Vernon St.	Philadelphia, Pa.
GERTRUDE F. GILBERT, B.L.	Flushing, N. Y.
T. WALTER GILKYSON, A.B., Polo, Bulacan	Luzon, P. I.
ETHEL GRIEST, B.L., 2231 Wallace St.	Philadelphia, Pa.
W. LYNDON HESS, B.L.	Collingswood, N. J.
ANNA B. HOWARD, B.L.	Media, Pa.
EDITH H. (JANNEY) HILDEBRAND, B.L.	Mt. Crawford, Va.
ARTHUR H. JENKINS, B.L.	Gwynedd, Pa.
AMY W. KNICKERBOCKER, B.L.	New Lenox, Ill.
MABEL W. LATIMER, B.L., 1500 Delaware Ave.	Wilmington, Del.
MARY W. LIPPINCOTT, B.L.	Riverton, N. J.
J. WARNER E. LOVE, B.S.	Moorestown, N. J.
FRANK M. McVAUGH, JR., B.S., 215 E. 15th St.	New York, N. Y.
MARTHA W. MOORE, B.L.	Phoenixville, Pa.
J. WILMER PANCOAST, B.S., Abington Friends' School	Jenkintown, Pa.
MARY B. RICHARDS, B.L.	Toughkenamon, Pa.
L. WINIFRED ROGERS, A.B., 77 Königgrätzer- strasse	Berlin, Germany.
G. ARTHUR SEAMAN, A.B., care <i>The Press</i> .	Philadelphia, Pa.
IRA SMEDLEY, B.S.	Uwchlan, Pa.
MARK THISTLETHWAITE, B.L., care <i>The Press</i> .	Philadelphia, Pa.
WILLIAM C. TYSON, B.S.	Guernsey, Pa.
EDWARD WILLIAMS, B.L., Daraga, Cagsana	Albay, P. I.
EDITH M. WINDER, B.L.	Richmond, Ind.
M. FLORENCE WYNN, A.B., Temple College	Philadelphia, Pa.
M. ALMA YOUNG, A.B.	Easton, Pa.

HOLDERS OF THE JOSHUA LIPPINCOTT FELLOWSHIP

1893-1894

T. ATKINSON JENKINS, A. B., '87; Ph. D., Johns Hopkins, '94.
BENJAMIN F. BATTIN, A. B., '92; studied in Berlin; Ph. D., Jena, 1900.

1894-1895

DAVID B. RUSHMORE, B. S., '94; M. E., Cornell, '95; C. E., Swarthmore, '97.

1895-1896

HOWARD WHITE, JR., B. S., '95; M. S., Michigan, '96; C. E., Swarthmore, 1900.

1896-1897; 1897-1898

JOHN W. GREGG, B. L., '94; A. M., Cornell, '99.

1898-1899

ELLWOOD C. PARRY, B. L., '97; studied in Berlin; M. L., Swarthmore, 1900.

1899-1900; 1900-1901

JOHN E. WELLS, B. L., '96; M. L., '99; A. M., Columbia, 1900.

1901-1902

MARY G. LEIPER, B. L., '99; studying in Berlin.

HOLDERS OF THE LUCRETIA MOTT FELLOWSHIP

1895-1896

HELEN B. SMITH, A. B., '95; studied in Oxford University; A. M., Swarthmore, '99.

1896-1897

MARY S. McDOWELL, A. B., '96; studied in Oxford University.

1897-1898

SARAH BANCROFT CLARK, B. S., '97; studied in Newnham College, Cambridge.

1898-1899

EDNA H. RICHARDS, B. L., '98; studied in Berlin.

1899-1900

MARY E. SEAMAN, A. B., '99; studied in Newnham College, Cambridge.

1900-1901

ANNA GILLINGHAM, A. B., 1900; studied in Radcliffe College.

1901-1902

L. WINIFRED ROGERS, A. B., 1901; studying in Berlin.

THE ALUMNI ASSOCIATION

The Alumni Association was organized Fifth Month 8, 1875, and incorporated First Month 16, 1882. Its object is "to promote union and good feeling among the Alumni, and to advance in all proper ways the interests of Swarthmore College." All graduates are *ipso facto* members of the Association. The annual meeting and banquet are held in the afternoon and evening of Commencement Day.

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FLORENCE HALL PHILIPS, '80..... Wilmington, Del.

A. MITCHELL PALMER, '91..... Stroudsburg, Pa.

SECRETARY

EMMA GAWTHROP HAYES, '88..... Swarthmore, Pa.

TREASURER

CHARLES A. BUNTING, '83..... Allentown, Pa.

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ANNIE HILLBORN, '92..... Swarthmore, Pa.

Term Expires Sixth Month, 1903

ELIZABETH WOOLSTON COLLINS, '74..... Swarthmore, Pa.

W. LLEWELLYN BANER, '82..... New York, N. Y.

SAMUEL C. PALMER, '95..... Swarthmore, Pa.

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314 Vine Street, Philadelphia, Pa.

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SUSAN W. LIPPINCOTT,

Cinnaminson, N. J.

JOHN T. WILLETS,

303 Pearl Street, New York, N. Y.

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