

KEY.

University buildings are given in red.

33. Residence of F. C. Cornell.
35. Delta Upsilon Lodge.
36. Prof. Simon H. Gage.
- 36a. Prof. Jeremiah W. Jenks.
37. Prof. Edward L. Nichols.
- 37a. Prof. Alfred Emerson.
- 37b. Prof. I. P. Church.
- 37c. Delta Kappa Epsilon L'ge.
38. Sigma Phi Lodge.
39. Psi Upsilon Lodge.
40. Cascadilla Place.
42. Kappa Alpha Lodge.
43. Armory and Gymnasium.
44. Sage Cottage.
45. Prof. W. F. Durand.
46. Prof. John H. Tanner.
47. Prof. Thomas F. Crane.
48. Prof. George C. Caldwell.
49. The University Library.
50. Morrill Hall.
51. McGraw Hall.
52. White Hall.
53. Franklin Hall.
54. Morse Hall.
56. Franklin Hall Annex.
57. The Sibley College.
58. Dynamo Laboratory, Engine Room, and Machine Shop.
59. Blacksmith Shop; Foundry.
60. Wood-working Shop and Testing Laboratory.
61. Magnetic Laboratory.
62. Lincoln Hall—Colleges of Civil Engineering and Architecture.
63. Dairy Building.
65. Boardman Hall.
66. Prof. Charles Babcock.
- 66a. Observatory.
67. The Sage Chapel.
68. Barnes Hall—Cornell University Christian Association.



The University estate comprises altogether two hundred and seventy acres of land. About one hundred and ten acres are devoted to the uses of the Agricultural department, for experimental purposes, and for the illustration of the principles and practice of Agriculture; while about thirty acres are under the direction of the Professor of Horticulture. The Campus and ornamental grounds embrace nearly eighty acres, and about fifty acres are in the margins of Fall and Cascadilla Creeks.

KEY.

69. The Sage College.
70. The Sage Conservatories.
71. Prof. Benjamin I. Wheeler.
72. Prof. Edward Hitchcock.
73. Librarian Geo. W. Harris.
- 73a. Prof. George P. Bristol.
74. Prof. Charles E. Bennett.
75. Forcing House of the University Gardens.
76. The Garden Barn, or South Barn.
78. Prof. Liberty H. Bailey.
79. Prof. Moses C. Tyler.
80. Prof. W. D. Bancroft.
81. Prof. Charles M. Tyler.
82. Prof. Willard W. Rowlee.
83. Prof. Estevan A. Fuyertes.
84. Prof. Robert H. Thurston.
- 84a. New York State Veterinary College.
85. Prof. Horatio S. White.
86. Ex-Pres. Andrew D. White.
87. Prof. Wm. A. Hammond.
88. Prof. Waterman T. Hewett.
89. Prof. James Law.
90. Prof. Lucien A. Wait.
91. Prof. Isaac P. Roberts.
92. Prof. John H. Barr.
93. President Jacob Gould Schurman.
94. Prof. John H. Comstock.
95. Cornell Farm House.
96. Insectary.
97. Prof. James M. Hart.
98. Prof. Henry H. Wing.
99. Prof. Henry S. Jacoby.
100. The Dairyman's House.
101. The Dairy House.
102. The University Farm Barn or North Barn.

THE
CORNELL UNIVERSITY
REGISTER

1897-1898

[SECOND EDITION]

“I would found an institution where any person can find instruction
in any study.”

EZRA CORNELL.

ITHACA, N. Y.
PUBLISHED BY THE UNIVERSITY
PRESS OF ANDRUS & CHURCH

TABLE OF CONTENTS.

	PAGE
CALENDAR	5
FOUNDATION AND ENDOWMENT	8
BOARD OF TRUSTEES	12
DEPARTMENTS AND FACULTIES	14
OFFICERS OF THE UNIVERSITY	15
ADMISSION AND CLASSIFICATION	29
RESIDENCE AND GRADUATION	43
SCHOLARSHIPS AND PRIZES	47
GRADUATE DEPARTMENT	53
THE ACADEMIC DEPARTMENT	62
THE COLLEGE OF LAW	157
THE COLLEGE OF AGRICULTURE	170
THE NEW YORK STATE VETERINARY COLLEGE	187
THE COLLEGE OF ARCHITECTURE	200
THE COLLEGE OF CIVIL ENGINEERING	206
THE SIBLEY COLLEGE	221
THE UNIVERSITY LIBRARY	238
THE SAGE CHAPEL AND BARNES HALL	243
SUMMER COURSES	245
LIST OF FELLOWS AND SCHOLARS	253
CATALOGUE OF STUDENTS	259
THE TWENTY-NINTH ANNUAL COMMENCEMENT	323
THE ASSOCIATE ALUMNI	332
INDEX	337

1898.

JANUARY.

S	M	T	W	T	F	S
.	.	.	.	.	.	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	.	.	.	.	.

MAY.

S	M	T	W	T	F	S
.	.	.	.	.	.	.
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	.	.	.	.

SEPTEMBER.

S	M	T	W	T	F	S
.	.	.	.	.	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
.	.	.	.	.	.	.

FEBRUARY.

.	.	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	.	.	.	.	.
.	.	.	.	.	.	.

JUNE.

.	.	.	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	.	.
.	.	.	.	.	.	.

OCTOBER.

.	.	.	.	.	.	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	.	.	.	.	.

MARCH.

.	.	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	.	.
.	.	.	.	.	.	.

JULY.

.	.	.	.	.	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	.	.	.	.	.	.

NOVEMBER.

.	.	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	.	.	.
.	.	.	.	.	.	.

APRIL.

.	.	.	.	.	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
.	.	.	.	.	.	.

AUGUST.

.	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	.	.	.
.	.	.	.	.	.	.

DECEMBER.

.	.	.	.	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31
.	.	.	.	.	.	.

THE UNIVERSITY CALENDAR.

1897-98.

FALL TERM—1897.

Sept. 14	Tuesday	Entrance Examinations begin.
Sept. 20	Monday	{ ACADEMIC YEAR BEGINS. REGISTRATION of matriculated Students.
Sept. 21	Tuesday	
Sept. 22	Wednesday	{ Last day of REGISTRATION of matriculated Students. Matriculation of new Students. University Scholarship Examinations begin. MATRICULATION of new Students.
Sept. 23	Thursday	
Oct. 15	Friday	{ INSTRUCTION BEGINS in all departments of the University. President's annual address to the students at 12:00 M.
Nov. 25	Thursday	
Dec. 1	Wednesday	{ Latest date for announcing subjects of Theses for Baccalaureate degrees in the General courses. THANKSGIVING DAY.
Dec. 23	Thursday	
Dec. 23	Thursday	{ Latest date for announcing subjects of Theses for advanced degrees. Christmas recess begins.
Jan. 4	Tuesday	

WINTER TERM—1898.

Jan. 4	Tuesday	REGISTRATION for the term.
Jan. 10	Monday	Ninety-four Memorial Prize Competition.
Jan. 11	Tuesday	FOUNDER'S DAY.
Jan. 14	Friday	{ Latest date for announcing subjects of Theses in the technical courses.
Feb. 22	Tuesday	
March 26	Saturday	WASHINGTON'S BIRTHDAY. Spring recess begins.

SPRING TERM—1898.

April	5 Tuesday	{	REGISTRATION for the Term. Latest date for presenting Woodford Prize Orations.
May	2 Monday	{	Latest date for presenting Theses for advanced degrees. Latest date for presenting Theses for baccalaureate degrees, and Essays for the medal offered by the National Society of the Sons of the American Revolution.
May	6 Friday		Woodford Prize Competition.
May	16 Monday	{	Latest date for receiving applications for Fellowships.
May	20 Friday		Eighty-six Memorial Prize Competition.
May	30 Monday		DECORATION DAY.
June	1 Wednesday	{	Latest date for receiving applications for Teachers' Certificates, for Special Mention, for degrees in History and Political Science and in Natural History, and for Medical Preparatory Certificates.
June	9 Thursday		Instruction ends.
June	10 Friday		Entrance Examinations begin.
June	12 Sunday		Baccalaureate Sermon.
June	14 Tuesday		Class Day.
June	15 Wednesday	{	Alumni Day. Annual Meeting of the Trustees.
June	16 Thursday		THIRTIETH ANNUAL COMMENCEMENT.

SUMMER COURSES.

June	22	Wednesday	{ Summer term in Entomology and Invertebrate Zoology begins.
July	4	Monday	REGISTRATION for the Summer Courses.
July	5	Tuesday	Summer Courses begin.
Aug.	13	Saturday	Summer Courses end.
Aug.	31	Wednesday	Summer Term in Entomology ends.

FALL TERM—1898.

Sept.	13	Tuesday	Entrance Examinations begin.
Sept.	19	Monday	{ ACADEMIC YEAR BEGINS. REGISTRATION of matriculated Students.
Sept.	20	Tuesday	{ Last day of REGISTRATION of matriculated Students. Matriculation of new Students. University Scholarship Examinations begin.
Sept.	21	Wednesday	MATRICULATION of new Students.
Sept.	22	Thursday	{ INSTRUCTION BEGINS in all departments of the University. President's annual address to the students at 12:00 M.
Oct.	15	Saturday	{ Latest date for announcing subjects of Theses for Baccalaureate degrees in the General courses.
Nov.	—	Thursday	THANKSGIVING DAY.
Dec.	1	Thursday	{ Latest date for announcing subjects of Theses for advanced degrees.
Dec.	23	Friday	Christmas recess begins.

WINTER TERM—1899.

Jan.	3	Tuesday	REGISTRATION for the term.
------	---	---------	----------------------------

FOUNDATION AND ENDOWMENT.

Cornell University was incorporated by the legislature of the State of New York on the 27th of April, 1865, and opened on the 7th of October, 1868. The existence of the university is due to the combined wisdom and bounty of the United States, the State of New York, and Ezra Cornell.

By an act of Congress, approved July 2, 1862, it was provided that there should be granted to the several states public lands, "thirty thousand acres for each senator and representative of congress," from the sale of which there should be established a perpetual fund "the interest of which shall be inviolably appropriated, by each state which may take and claim the benefit of this act, to the endowment, support and maintenance of at least one college, where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the states may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life." The act forbade the use of any portion of the aforesaid fund, or of the interest thereon, for the purchase, erection or maintenance of any building or buildings; but the several states claiming and taking the benefit of the provisions of the act were required, by legislative assent previously given, "to provide, within five years at least, not less than one college" for carrying out the purposes of the act.

The share of the State of New York was nine hundred and ninety thousand acres. The scrip was delivered to the comptroller, who was authorized, by the act passed May 5, 1863, to receive it and with the approval and concurrence of other state officers to dispose of the whole or any portion of it for cash, or for stocks of the United States or of the states, or some other safe stocks yielding not less than five per cent. Under this act eight thousand acres were sold at eighty-three cents and sixty-eight thousand acres at eighty-five cents, producing together sixty-four thousand four hundred and forty dollars. But as other states were offering their scrip at a much lower rate, sales soon ceased. Furthermore there was the greatest uncertainty in regard to the disposition which the legislature might ultimately make of the fund that was expected to accrue from the sale of the land scrip.

Meantime Ezra Cornell was dreaming of a project which he had come to formulate in the memorable words: 'I would found an institution where any person can find instruction in any study.' By a union of his own resources with the proceeds of the land grant he saw a way to a realization of his purpose. This union was effected by the act of April 27, 1865, establishing Cornell University, and appropriating to it the income of the sale of public lands granted by congress to the State of New York; and the founder's broad conception of a university was reconciled with the narrower purpose of the act of congress donating public lands to the states establishing colleges for the benefit of agriculture and the mechanic arts, by providing in the charter that "such other branches of science and knowledge may be embraced in the plan of instruction and investigation pertaining to the university, as the trustees may deem useful and proper." In the same liberal spirit it was provided in regard to the board of trustees, that "at no time shall a majority of the board be of one religious sect, or of no religious sect;" in regard to professors and other officers, that "persons of every religious denomination, or of no religious denominations, shall be equally eligible to all offices and appointments;" and in regard to students, that the university should admit them "at the lowest rates of expense consistent with its welfare and efficiency," and more particularly that it should "annually receive students, one from each assembly district of the state . . . free of any tuition fee . . . in consideration of their superior ability, and as a reward for superior scholarship in the academies and public schools of this state."

Ezra Cornell's direct donation to the university was five hundred thousand dollars, two hundred acres of land with useful buildings, and several smaller gifts for special purposes. His largest contribution, however, came in the shape of profits eventually made by the university on the land scrip which he purchased from the state. Of the New York scrip no further sales had been made by the comptroller prior to the autumn of 1865, when Ezra Cornell purchased one hundred thousand acres for fifty thousand dollars upon condition that all the profits which should accrue from the sale of the land should be paid to Cornell University. By act of the legislature passed April 10, 1866, the state had authorized the comptroller to sell the scrip remaining unsold, that is to say, scrip for eight hundred and thirteen thousand nine hundred and twenty acres, to the trustees of Cornell University at a price of not less than thirty cents per acre; and in case the trustees should not agree to make the purchase, the legislature had further authorized the sale "to any person or persons," on the terms above named, provided that proper security should be given that "the whole

net avails and profits from the sale of scrip" should be paid over and devoted to the purposes of Cornell University. The trustees were not in condition to make the purchase. After some delay Mr. Cornell agreed to take the scrip at thirty cents an acre, with an addition of thirty cents if he should realize that sum on the sale of the land, making the following stipulation in a letter to the comptroller regarding any profits that might accrue in excess of the purchase money :

"I shall most cheerfully accept your views so far as to consent to place the entire profits to be derived from the sale of the lands to be located with the college land scrip in the treasury of the state, if the state will receive the money as a separate fund from that which may be derived from the sale of the scrip, and will keep it permanently invested, and appropriate the proceeds from the income thereof annually to the Cornell University, subject to the direction of the trustees thereof for the general purposes of said institution, and not to hold it subject to the restrictions which the act of congress places upon the funds derived from the sale of college land scrip, or as a donation from the government of the United States, but as a donation from Ezra Cornell to the Cornell University."

The terms proposed by Mr. Cornell were accepted, and the agreement with the state was made August 4, 1866. The sixth paragraph of the agreement distinguishes clearly between the "College Land Scrip Fund"—being the receipts from the state's sale of the land scrip—and the "Cornell Endowment Fund," which was to be constituted by the profits made by Mr. Cornell in the management of the lands and by his other gifts to the university. Mr. Cornell sold scrip for three hundred and eighty-one thousand nine hundred and twenty acres, at prices varying from eighty-five cents to one dollar per acre, the total receipts being three hundred and fifty-seven thousand seven hundred and forty-eight dollars and sixty one cents. With the remaining scrip for five hundred and thirty-two thousand acres he located five hundred and twelve thousand three hundred and forty-three and sixty-five-hundredths acres; and of the land thus located he sold one hundred and eleven thousand and forty-six and eighty-six-hundredths acres for four hundred and seventy thousand three hundred and sixty-four dollars and eighty-eight cents. The residue of the land he carried till October, 1874, when a new agreement was made, with the consent of the proper state officers, in virtue of which "the Cornell University" was "to take the place and assume the duties and obligations of Ezra Cornell, in his contracts with the state, of November, 1865, and August, 1866, accepting from him a conveyance of his entire interest, and all his rights under such contracts, and of all the lands located by him with college scrip, and paying at once in cash to the comptroller

the full amount of Cornell's bonds to the state principal and interest, and henceforward assuming the burden of the care, management, and sale of such lands." The university thus took the place of Ezra Cornell in his contract with the state; but subsequently the legislature by an act passed May 18, 1880, directed the comptroller, upon the request of Cornell University, to assign, transfer, pay, and deliver to the latter "all money, security, stocks, bonds and contracts, constituting a part of or relating to the fund known as the Cornell Endowment Fund, now held by the state for the use of said university," and a short time thereafter such transfer was made. From the lands handed over by Mr. Cornell—four hundred and one thousand two hundred and ninety-six and seventy nine-hundredths acres—the Board of Trustees, through the agency of their Land Committee (of which Henry W. Sage was chairman), have already realized a net return of about four million dollars. The absolute ownership by the university of the Cornell Endowment Fund was, on May 19, 1890, established by the decision of the Supreme Court of the United States, affirming a similar decision of the New York Court of Appeals.

The College Land Scrip Fund amounts to six hundred and eighty-eight thousand five hundred and seventy-six dollars and twelve cents. By chapter 78 of the laws of 1895 it was turned into the treasury of the state and a certificate of indebtedness for an interest thereupon of five per cent. annually was issued to Cornell University by the State, conformably to the conditions of the act of congress of July 2, 1862, under which the donation of public land was made.

The original charter of Cornell University set limits to the amount of property it could hold; but by an act passed May 12, 1882, the clause in the charter restricting the holdings of the university was amended so as to remove every limitation, the precise language of the amendment being as follows:

"The corporation hereby created ['Cornell University'] may take and hold real and personal property to such an amount as may be or become necessary for the proper conduct and support of the several departments of education heretofore established or hereafter to be established by its board of trustees, and such property, real and personal, as has been or may hereafter be given to said corporation by gift, grant, devise, or bequest in trust or otherwise, for the uses and purposes permitted by its charter, and in cases of trusts so created the several trust estates shall be kept distinct, and the interest or income shall be faithfully applied to the purposes of such trust in accordance with the provisions of the act or instrument by which the respective trusts were created."

BOARD OF TRUSTEES.

ALONZO B. CORNELL,	<i>Ex officio</i> ,	New York
The PRESIDENT of the University,	<i>Ex officio</i> ,	Ithaca.
His Excellency the GOVERNOR of New York,	<i>Ex officio</i> ,	Albany.
His Honor the LIEUTENANT-GOVERNOR,	<i>Ex officio</i> ,	Albany.
The SPEAKER of the Assembly,	<i>Ex officio</i> ,	Albany.
The SUPERINTENDENT of Public Instruction,	<i>Ex officio</i> ,	Albany.
The COMMISSIONER of Agriculture,	<i>Ex officio</i> ,	Albany.
The PRESIDENT of the State Agricultural Society,	<i>Ex officio</i> ,	Brooklyn.
The LIBRARIAN of the Cornell Library,	<i>Ex officio</i> ,	Ithaca.
*ALFRED C. BARNES,	(<i>E.B.</i>) ¹	Brooklyn.
*FRANKLIN C. CORNELL,	(<i>E.B.</i>)	Ithaca.
*CHARLES S. FRANCIS, B.S.,	(<i>E.A.</i>)	Troy.
*JARED TREMAN NEWMAN, Ph.B., LL.B.,	(<i>E.A.</i>) ²	Ithaca.
*WILLIAM H. SAGE, A.B.,	(<i>E.B.</i>)	Ithaca.
*———		———
ROSWELL P. FLOWER,	(<i>E.B.</i>)	Watertown.
C. SIDNEY SHEPARD, A.B., LL.B.,	(<i>E.B.</i>)	New Haven.
HIRAM W. SIBLEY, Ph.D., LL.B.,	(<i>E.B.</i>)	Rochester.
M. CAREY THOMAS, A.B., Ph.D.,	(<i>E.A.</i>)	Bryn Mawr, Pa.
JOHN DEWITT WARNER, Ph.B., LL.B.,	(<i>E.A.</i>)	New York.
STEWART L. WOODFORD, LL.D.,	(<i>E.B.</i>)	New York.
ROBERT B. ADAM,	(<i>E.B.</i>)	Buffalo.
WILLIAM BALLARD HOYT, Ph.B.,	(<i>E.A.</i>)	Buffalo.
HENRY RUBENS ICKELHEIMER, B.L.,	(<i>E.B.</i>)	New York.
WALTER CRAIG KERR, B.M.E.,	(<i>E.A.</i>)	New York.
HENRY B. LORD,	(<i>E.B.</i>)	Ithaca.
ANDREW D. WHITE, LL.D., L.H.D.,	(<i>E.B.</i>)	Ithaca.
ANDREW CARNEGIE,	(<i>E.B.</i>)	Pittsburg, Pa.
JOSEPH C. HENDRIX,	(<i>E.B.</i>)	Brooklyn.
DEFOREST VAN VLEET, B.S.,	(<i>E.A.</i>)	Ithaca.
CHARLES GRAY WAGNER, B.S., M.D.,	(<i>E.A.</i>)	Binghamton.
HORACE WHITE, M.A.,	(<i>E.B.</i>)	New York.
GEORGE R. WILLIAMS, LL.B.,	(<i>E.B.</i>)	Ithaca.
SAMUEL D. HALLIDAY, A.B.,	(<i>E.B.</i>)	Ithaca.
———		———
ROBERT H. TREMAN, B.M.E.,	(<i>E.B.</i>)	Ithaca.
GEORGE B. TURNER, B.S.,	(<i>E.A.</i>)	Auburn.
MYNDERSE VAN CLEEF, B.S.,	(<i>E.B.</i>)	Ithaca.
FRANK SHERMAN WASHBURN, B.C.E.,	(<i>E.A.</i>)	New York.

* Term of office (5 years) expires in 1898, the next group of six in 1899, etc., etc.

(1) *E.B.*, elected by Board; (2) *E.A.*, elected by Alumni.

OFFICERS OF THE BOARD OF TRUSTEES.

ROSWELL P. FLOWER, *Chairman.*
 EMMONS L. WILLIAMS, *Secretary-Treasurer.*

EXECUTIVE COMMITTEE.

SAMUEL D. HALLIDAY,	<i>Chairman.</i>
The PRESIDENT of the University,	HENRY B. LORD,
The LIBRARIAN of the Cornell Library,	ANDREW D. WHITE,
GEORGE R. WILLIAMS,	WILLIAM H. SAGE,
SAMUEL D. HALLIDAY,	ROBERT H. TREMAN,
JARED T. NEWMAN,	MYNDERSE VAN CLEEF,
FRANKLIN C. CORNELL,	DEFOREST VAN VLEET.
EMMONS L. WILLIAMS,	<i>Secretary.</i>

STANDING COMMITTEES.

Committee on Buildings:

Trustees ———, SCHURMAN, WILLIAMS.

Committee on Grounds:

Trustees W. H. SAGE, TREMAN, SCHURMAN.

Finance Committee:

Trustees WILLIAMS, LORD, ———, HALLIDAY.

Land Committee:

Trustees ———, W. H. SAGE, and the Treasurer.

Committee on Appropriations:

Trustees SCHURMAN, ———, LORD.

Auditing Committee:

Trustees LORD, WILLIAMS.

DEPARTMENTS AND FACULTIES.

1. THE UNIVERSITY.—Cornell University comprehends the following departments, to-wit: the Graduate Department, the Academic Department (or Department of Arts and Sciences), the College of Law, the College of Civil Engineering, the Sibley College of Mechanical Engineering and Mechanic Arts, the College of Architecture, and the College of Agriculture. The New York State Veterinary College is administered by Cornell University, and its work is organically connected with that of the University.

2. THE FACULTIES.—The Faculties of Cornell University are : (a) A General Faculty, designated the University Faculty ; and (b) Special Faculties as follows : the Faculties of Arts and Sciences, the Faculty of Law, the Faculty of Civil Engineering, the Faculty of Mechanical Engineering, the Faculty of Architecture, the Faculty of Agriculture, and the Faculty of Veterinary Medicine.

3. THE UNIVERSITY FACULTY.—The University Faculty consists of the President, who is *ex officio* the presiding officer, and the Professors and Assistant Professors of the University, including the Professors and Assistant Professors of the New York State Veterinary College. It is the function of the University Faculty to consider questions which concern more than one Special Faculty, and questions of University policy. The Graduate Department is under the immediate charge of the University Faculty.

4. THE SPECIAL FACULTIES.—Each Special Faculty is composed of the President, who is *ex officio* the presiding officer, and all Professors, Assistant Professors, and Instructors who teach in the department or departments under the charge of that Faculty ; but Instructors shall not have the right to vote. Subject to the right of revision by the University Faculty, on all matters affecting general University policy it is the duty of each Special Faculty to determine the entrance requirements for its own students ; to prescribe and define courses of study for them ; to determine the requirements for such degrees as are offered to students under its jurisdiction ; to enact and enforce rules for the guidance and government of its students ; and to recommend to the Trustees such candidates for degrees as may have completed the requirements.

OFFICERS OF INSTRUCTION AND ADMINISTRATION.

THE UNIVERSITY FACULTY.

[ARRANGED IN GROUPS IN THE ORDER OF SENIORITY OF
APPOINTMENTS.]

JACOB GOULD SCHURMAN, A.M., D.Sc., LL.D., PRESIDENT.

41 East Avenue

THE REV. WILLIAM DEXTER WILSON, D.D., LL.D., L.H.D.,
Professor of Moral and Intellectual Philosophy, Emeritus,

Syracuse

GOLDWIN SMITH, D.C.L., LL.D., Professor of English History,
Emeritus,

Toronto, Canada

THE REV. CHARLES BABCOCK, A.M., Professor of Architecture,
Emeritus,

Sage Avenue

GEORGE CHAPMAN CALDWELL, B.S., Ph.D., Professor of Gen-
eral Chemistry and of Agricultural Chemistry, *11 Central Avenue*

BURT GREEN WILDER, B.S., M.D., Professor of Physiology, Ver-
tebrate Zoology, and Neurology, *60 Cascadilla Place*

JAMES LAW, F.R.C.V.S., Director of the State Veterinary College,
and Professor of Principles and Practice of Veterinary Medicine,
Veterinary Sanitary Science, and Veterinary Therapeutics,

33 East Avenue

JOHN LEWIS MORRIS, A.M., C.E., Sibley Professor of Practical
Mechanics and Machine Construction, *8 North Geneva Street*

THOMAS FREDERICK CRANE, A.M., Dean of the Faculty of
Arts and Sciences, and Professor of the Romance Languages and
Literatures, *9 Central Avenue*

HIRAM CORSON, A.M., LL.D., Professor of English Literature,

Cascadilla Cottage

WATERMAN THOMAS HEWETT, A.B., Ph.D., Professor of the
German Language and Literature, *31 East Avenue*

ESTEVEAN ANTONIO FUERTES, Ph.D., C.E., M.A.S.C.E., Di-
rector of the College of Civil Engineering, and Professor of Sani-
tary Engineering, *13 East Avenue*

ISAAC PHILLIPS ROBERTS, M.Agr., Director of the College of
Agriculture, and Professor of Agriculture, *37 East Avenue*

HORATIO STEVENS WHITE, A.B., Dean of the University Faculty,
and Professor of the German Language and Literature,

23 East Avenue

- JOHN HENRY COMSTOCK, B.S., Professor of Entomology and
General Invertebrate Zoology, 43 *East Avenue*
- SAMUEL GARDNER WILLIAMS, A.B., Ph.D., Professor of the
Science and Art of Teaching, 155 *East Seneca Street*
- THE REV. MOSES COIT TYLER, A.M., L.H.D., Professor of Amer-
ican History, 5 *East Avenue*
- ROBERT HENRY THURSTON, C.E., Ph.B., A.M., L.L.D., Dr.
Eng'g, Director of Sibley College, and Professor of Mechanical
Engineering, 15 *East Avenue*
- BENJAMIN IDE WHEELER, A.B., Ph.D., LL.D., Professor of
Greek and Comparative Philology, 3 *South Avenue*
- EDWARD LEAMINGTON NICHOLS, B.S., Ph.D., Professor of
Physics, 5 *South Avenue*
- LIBERTY HYDE BAILEY, M.S., Professor of General and Exper-
imental Horticulture, 3 *East Avenue*
- EDWARD HITCHCOCK, JR., A.M., M.D., Professor of Physical
Culture and Hygiene, and Director of the Gymnasium,
2 *Grove Place*
- JAMES MORGAN HART, A.M., J.U.D., Professor of Rhetoric and
English Philology, 1 *Reservoir Avenue*
- THE REV. CHARLES MELLEN TYLER, A.M., D.D., Sage Profes-
sor of the History and Philosophy of Religion and of Christian
Ethics, 9 *East Avenue*
- JEREMIAH WHIPPLE JENKS, A.M., Ph.D., Professor of Political
Economy and Civil and Social Institutions, 2 *South Avenue*
- LUCIEN AUGUSTUS WAIT, A.B., Professor of Mathematics,
35 *East Avenue*
- IRVING PORTER CHURCH, C.E., Professor of Applied Mechanics
and Hydraulics, 9 *South Avenue*
- GEORGE LINCOLN BURR, A.B., Professor of Ancient and Mediaeval
History, *Barnes Hall*
- CHARLES EDWIN BENNETT, A.B., Professor of Latin,
1 *Grove Place*
- ERNEST WILSON HUFFCUT, B.S., LL.B., Professor of Law,
63 *Eddy Street*
- FRANCIS M FINCH, A.B., LL.D., Director of the College of Law,
and Professor of the History and Evolution of the Law,
3 *Fountain Place*
- HENRY MORSE STEPHENS, M.A., Professor of Modern European
History, 176 *Cascadilla Place*
- CUTHBERT WINFRED POUND, Professor of Law,
151 *East Seneca Street*

- SIMON HENRY GAGE, B.S., Professor of Microscopy, Histology,
and Embryology, *4 South Avenue*
- ROLLA CLINTON CARPENTER, M.S., C.E., M.M.E., Professor of
Experimental Engineering, *31 Eddy Street*
- CHARLES LEE CRANDALL, C.E., Professor of Railway Engineer-
ing and Geodesy, *100 Hector Street*
- GEORGE WILLIAM JONES, A.M., Professor of Mathematics,
17 Stewart Avenue
- JAMES EDWIN CREIGHTON, A.B., Ph.D., Sage Professor of
Logic and Metaphysics, *144 East Seneca Street*
- HARRIS JOSEPH RYAN, M.E., Professor of Electrical Engineer-
ing, *114 Cascadilla Place*
- WILLIAM FREDERICK DURAND, Ph.D., Professor of Marine
Engineering, and Principal of the Graduate School of Marine
Engineering and Naval Architecture, *5 Central Avenue*
- EDWARD BRADFORD TITCHENER, A.M., Ph.D., Sage Professor
of Psychology, *65 Cascadilla Place*
- WILLIAM ALBERT FINCH, A.B., Professor of Law,
63 Eddy Street
- GEORGE FRANCIS ATKINSON, Ph.B., Professor of Botany, with
special reference to Comparative Morphology and Mycology,
45 Stewart Avenue
- JAMES SETH, M.A., D.Sc., Sage Professor of Moral Philosophy,
99 Cascadilla Place
- RALPH STOCKMAN TARR, B.S., Professor of Dynamic Geology
and Physical Geography, *157 East Seneca Street*
- EDWIN HAMLIN WOODRUFF, LL.B., Professor of Law,
63 North Aurora Street
- VERANUS ALVA MOORE, B.S., M.D., Professor of Comparative
and Veterinary Pathology and Bacteriology, and of Meat In-
spection. *266 East State Street*
- WALTER LONG WILLIAMS, D.V.S., Professor of Principles and
Practice of Veterinary Surgery, Zootechny, Obstetrics, and Juris-
prudence, *33 Eddy Street*
- WALTER SCRIBNER SCHUYLER, Captain U.S.A., Professor of
Military Science and Tactics, *103 East Seneca Street*
- THE REV. NATHANIEL SCHMIDT, A.B., Professor of the Semitic
Languages and Literature, *103 North Aurora Street*
- ALEXANDER BUEL TROWBRIDGE, B.S., in Arch., Professor of
Architecture in charge of the College of Architecture,
148 East Buffalo Street
- GEORGE PRENTICE BRISTOL, A.M., Associate Professor of
Greek, *5 Grove Place*

- ALFRED EMERSON, Ph.D., Associate Professor of Classical Archæology, and Curator of the Museum of Casts, [*Absent in Athens as Professor in the American School of Classical Studies for 1897-1898*].
- CHARLES FRANCIS OSBORNE, Associate Professor of Architecture, *Absent on leave*
- HENRY SYLVESTER JACOBY, C.E., Associate Professor of Bridge-Engineering and Graphics, *7 Reservoir Avenue*
- LOUIS MUNROE DENNIS, Ph.B., B.S., Associate Professor of Inorganic and Analytical Chemistry, *3 Eddy Street*
- WALTER FRANCIS WILLCOX, LL.B., Ph.D., Associate Professor of Social Science and Statistics, *27 Stewart Avenue*
- JOHN HENRY BARR, M.S., M.M.E., Associate Professor of Machine Design, *39 East Avenue*
- EDWIN CHASE CLEAVES, B.S., Assistant Professor of Freehand Drawing and Mechanical Drawing, *Cortland*
- GEORGE SYLVANUS MOLER, A.B., B.M.E., Assistant Professor of Physics, *106 University Avenue*
- HERBERT CHARLES ELMER, A.B., Ph.D., Assistant Professor of Latin, *135 East Seneca Street*
- HARVEY DANIEL WILLIAMS, M.E., Assistant Professor of Mechanical Drawing, *Absent on leave*
- JAMES McMAHON, A.M., Assistant Professor of Mathematics, *1 Quarry Street*
- WILLIAM RIDGELY ORNDORFF, A.B., Ph.D., Assistant Professor of Organic Chemistry, *Absent on leave*
- HENRY HIRAM WING, M.S., Assistant Professor of Animal Industry and Dairy Husbandry, *3 Reservoir Avenue*
- FRED PUTNAM SPALDING, C.E., M.A.S.C.E., Assistant Professor of Civil Engineering, *159 East Seneca Street*
- WILLIAM ALEXANDER HAMMOND, A.M., Ph.D., Assistant Professor of Ancient and Mediæval Philosophy, *29 East Avenue*
- GEORGE ROBERT McDERMOTT, Assistant Professor of Naval Architecture, *28 North Cayuga Street*
- ERNEST GEORGE MERRITT, M.E., Assistant Professor of Physics, *72 Huestis Street*
- JOSEPH ELLIS TREVOR, Ph.D., Assistant Professor of General Chemistry, and Physical Chemistry, *160 East Seneca Street*
- WILLARD WINFIELD ROWLEE, B.L., D.Sc., Assistant Professor of Botany, with special reference to Comparative Histology and Systematic Botany, *11 East Avenue*
- CHARLES HENRY HULL, Ph.D., Assistant Professor of Political Economy, and Secretary of the University Faculty, *89 East Buffalo Street*

- DUNCAN CAMPBELL LEE, A.M., Assistant Professor of Elocution and Oratory, *11 East Avenue*
- FREDERICK BEDELL, Ph.D., Assistant Professor of Physics, *4 Orchard Place*
- GILBERT DENNISON HARRIS, Ph.B., Assistant Professor of Palæontology and Stratigraphic Geology, *43 Stewart Avenue*
- ADAM CAPEN GILL, Ph.D., Assistant Professor of Mineralogy and Petrography, *43 Stewart Avenue*
- JOHN HENRY TANNER, B.S., Assistant Professor of Mathematics, *7 Central Avenue*
- CLARENCE AUGUSTINE MARTIN, Assistant Professor of Architecture, *1 Cascadilla Place*
- WILDER DWIGHT BANCROFT, A.B., Ph.D., Assistant Professor of Physical Chemistry, *7 East Avenue*
- PIERRE AUGUSTINE FISH, B.S., D.Sc., D.V.S., Assistant Professor of Veterinary Physiology, Materia Medica, and Pharmacy, *24 Hazen Street*
- GRANT SHERMAN HOPKINS, B.S., D.Sc., Assistant Professor of Veterinary Anatomy and Anatomical Methods, *4 South Avenue*
- JOHN VREDENBURGH VANPELT, A.D.G., Assistant Professor of Planning and Design in the College of Architecture, *148 East Buffalo Street*
- FREDERICK CLARK PRESCOTT, A.B., Assistant Professor of Rhetoric, *1 West Avenue*
- LOUISE SHEFFIELD BROWNELL, A.B., Ph.D., Warden of Sage College and Lecturer on English Literature, *Sage College*
- JARED TREMAN NEWMAN, Ph.B., LL.B., Lecturer on Practice and Procedure in the College of Law, *104 East Buffalo Street*
- GEORGE WILLIAM HARRIS, Ph.B., Librarian, *3 Grove Place*
- ANDREW CURTIS WHITE, Ph.D., Assistant Librarian in charge of Classification, *100 Dryden Road*
- WILLARD HENRY AUSTIN, Assistant Librarian in charge of Reference Library, *105 Cascadilla Place*
- ALEXANDER HUGH ROSS FRASER, LL.B., Librarian of the Law Library, *Boardman Hall*

INSTRUCTORS AND ASSISTANTS.

- HIRAM SAMUEL GUTSELL, B.P., A.M., Instructor in Drawing and Industrial Art, *33 Hazen Street*
- GEORGE BURTON PRESTON, M.E., Instructor in Experimental Engineering, *66 Eddy Street*
- HOMER JAMES HOTCHKISS, A.M., M.M.E., Instructor in Physics, *119 North Aurora Street*

- WILLIAM STRUNK, JR., A.B., Ph.D., Instructor in English,
92 *Cascadilla Place*
- JOHN SIMPSON REID, Instructor in Mechanical Drawing and De-
signing,
16 *Stewart Avenue*
- FREDERICK JOHN ROGERS, M.S., Instructor in Physics,
39 *Hazen Street*
- IRWIN JOHN MACOMBER, M.E., Instructor in Electrical En-
gineering,
55 *North Albany Street*
- ERNEST ALBEE, A.B., Ph.D., Instructor in Philosophy,
78 *Dryden Road*
- HENRY HAYDEN LANNIGAN, Instructor in Gymnastics,
38 *North Aurora Street*
- ALFRED HENRY ELDREDGE, M.E., Instructor in Mechanical
Laboratory,
10 *Hudson Street*
- WILLIAM ELTON MOTT, S.B., Instructor in Civil Engineering,
1 *West Avenue*
- FREDERIC LAWRENCE KORTRIGHT, D.Sc., Instructor in
Chemistry,
55 *Prospect Street*
- VICTOR TYSON WILSON, Instructor in Drawing in Sibley College,
40 *Hazen Street*
- HOWARD PARKER JONES, A.M., Ph.D., Instructor in German,
126 *Cascadilla Place*
- DAVID REID, Instructor in Drawing and Designing in Sibley
College,
72 *West Buffalo Street*
- CHARLES EDWARD TIMMERMAN, B.S., M.M.E., Instructor in
Physics,
126 *East Seneca Street*
- JOHN SANFORD SHEARER, B.S., Instructor in Physics,
126 *East Seneca Street*
- DANIEL ALEXANDER MURRAY, Ph.D., Instructor in Mathe-
matics,
170 *Cascadilla Place*
- HENRY NEELY OGDEN, C.E., Instructor in Civil Engineering,
15 *Centre Street*
- LEWIS LEAMING FORMAN, Ph.D., Instructor in Greek,
108 *Cascadilla Place*
- CHARLES EDWARD HOUGHTON, A.B., M.M.E., Instructor in
Experimental Engineering,
271 *East State Street*
- JOHN IRWIN HUTCHINSON, A.B., Instructor in Mathematics,
2 *Cascadilla Place*
- EDWIN DuBOIS SHURTER, Ph.B., Instructor in Elocution and
Oratory,
241 *East State Street*
- CHARLES JESSE BULLOCK, Ph.D., Instructor in Political Econ-
omy,
145 *Cascadilla Place*
- FRANK EMIL LODEMAN, A.M., Ph.D., Instructor in Romance
Languages,
113 *Cascadilla Place*

- VIRGIL SNYDER, A.M., Ph.D., Instructor in Mathematics,
40 *University Avenue*
- JOHN FILLMORE HAYFORD, C.E., Instructor in Civil Engineering,
ing,
- OLAF M BRAUNER, Instructor in Drawing in the College of
Architecture, 5 *Summit Avenue*
- BERT BRENETTE STROUD, D.Sc., Instructor in Physiology,
Vertebrate Zoology, and Neurology, *McGraw Hall*
- JOHN THOMAS PARSON, Instructor in Civil Engineering,
138 *Cascadilla Place*
- OLIVER SHANTZ, M.E., Instructor in Experimental Engineering,
66 *Eddy Street*
- ELIAS JUDAH DURAND, A.B., D.Sc., Instructor in Botany,
11 *Cook Street*
- EDWIN BARKER HIGBY, M.S. in Arch., Instructor in Drawing
in the College of Architecture, 84 *Eddy Street*
- EVERETT WARD OLMSTED, Ph.B., Ph.D., Instructor of Romance
Languages, 58 *Eddy Street*
- ALFRED AUSTIN MOORE, A.B., Instructor of Romance Lan-
guages, 78 *Dryden Road*
- ADOLPH THEODORE BRUEGEL, M.M.E., Instructor in Machine
Design, 142 *Cascadilla Place*
- CLAYTON HALSEY SHARP, A.B., Ph.D., Instructor in Physics,
25 *Cascadilla Place*
- HENRY HUTCHINSON NORRIS, M.E., Instructor in Electrical
Engineering, 55 *North Albany Street*
- BENJAMIN FREEMAN KINGSBURY, A.B., Ph.D., Instructor in
Microscopic Methods, Histology, and Embryology,
89 *North Tioga Street*
- EARL BRINK LOVELL, C.E., Instructor in Civil Engineering, and
Assistant in the Civil Engineering Laboratories,
140 *Cascadilla Place*
- GEORGE BURRIDGE VILES, A.B., AM., Instructor in German,
3 *Oak Avenue*
- BLIN SILL CUSHMAN, B.S., Instructor in Chemistry,
80 *Eddy Street*
- DARWIN ABBOT MORTON, B.S., Instructor in Organic Chemistry,
15 *Huestis Street*
- ELLEN BRAINARD CANFIELD, Instructor in Physical Culture at
Sage College, in charge of the Gymnasium for Women.
3 *Reservoir Avenue*
- THEODORE WHITTLESEY, A.B., Ph.D., Instructor in Chemistry,
11 *Cook Street*

- CHARLES LOVE DURHAM, A.M., Instructor in Latin,
78 *Dryden Road*
- CLARK SUTHERLAND NORTHUP, A.B., Instructor in English,
11 *Cook Street*
- RAYMOND CLINTON REED, Ph.B, Instructor in Comparative and
Veterinary Pathology and Bacteriology, 108 *University Avenue*
- CENTENNIAL HARRY BENEDICT, B.S., Instructor in Chemistry,
84 *Eddy Street*
- JACOB SEGALL, Ph.D., Instructor in French, 9 *Quarry Street*
- ELMER JAMES MCCAUSTLAND, M.C.E., Instructor in Civil En-
gineering, 163 *East State Street*
- CHARLES WELLINGTON FURLONG, Instructor in Industrial
Drawing and Art, 5 *Summit Avenue*
- THOMAS HALL, M.E., M.M.E., Instructor in Machine Design,
95 *East Seneca Street*
- DAVID IRONS, A.M., Ph.D., Instructor in Philosophy,
69 *Huestis Street*
- GEORGE ABRAM MILLER, A.M., Ph.D., Instructor in Mathe-
matics, 11 *Cook Street*
- CLAUDE WILLIAM LEROY FILKINS, C.E., M.C.E., Instructor
in Civil Engineering, 8 *Parker Street*
- EUGENE PLUMB ANDREWS, A.B., Curator of the Museum of
Casts, 24 *East Mill Street*
- CLAYTON L STANTON, Assistant in Mechanic Arts,
10 *Spencer Street*
- FRED CLARKSON FOWLER, Mechanician in the Department of
Physics, 114 *North Aurora Street*
- JAMES WISEMAN, Foreman of the Machine Shop, and in Machine
Construction, 88 *Eddy Street*
- RICHARD HISCOCK, Chief Engineer and Assistant in Steam Engi-
neering, *Sibley College*
- ROBERT SHORE, Assistant to the Professor of Botany, and Head
Gardener, *Garden Avenue*
- WILLIAM HENRY WOOD, Foreman in Woodshop,
72 *West Mill Street*
- JAMES WHEAT GRANGER, Foreman in Forging, 19 *Linn Street*
- JAMES EUGENE VANDERHOEF, Foreman in Foundry,
224 *North Cayuga Street*
- WILLIAM ORLAND STUBBS, Mechanician to the College of Civil
Engineering, 142 *North Aurora Street*
- ALEXANDER DYER MACGILLIVRAY, Assistant in Entomology,
Ithaca
- GEORGE CONGER POLLAY, Assistant in Wood Shop,
106 *East State Street*

- ROBERT VANDERHOEF, Assistant in Foundry,
88 Railroad Avenue
- WILLIAM FREDERICK RAYMOND, Mechanician in Sibley College,
8 Hudson Street
- WILLIAM FREDERIC HEAD, Assistant in Forging, Forest Home
- FRANK STARKINS, Assistant in the Machine Shop in Sibley College,
Forest Home
- GEORGE PLATT KNOX, B.S., Assistant in Chemistry,
72 North Tioga Street
- KARL MCKAY WIEGAND, B.S., Assistant in Botany,
46 Hazen Street
- JAY ALLAN BONSTEEL, B.S., Assistant in Geology,
119 North Aurora Street
- CHARLES ROBERT GASTON, Ph.B., Assistant in English,
3 Oak Avenue
- JOSHUA ROGER LEWIS, C.E., LL.B., Assistant in Elocution,
20½ Blair Street
- ALFRED ERNEST TAYLOR, A.M., Ph.D., Assistant in Chemistry,
17 Eddy Street
- JOHN FERGUSON SNELL, A.B., Assistant in Chemistry,
72 North Tioga Street
- OSCAR MILTON STEWART, Ph.B., Ph.D., Assistant in Physics,
23 Hazen Street
- MARK WOODHULL ROE, M.E., Assistant in Experimental Engineering,
- GEORGE ARMSTRONG SMITH, B.S. in Agr., Assistant in Chemistry,
42 Eddy Street
- CHARLES HENRY RAMMELKAMP, Ph.B., Assistant in American History,
22 Blair Street
- ISAAC MADISON BENTLEY, B.S., Assistant in Psychology,
49 Cascadilla Place
- GEORGE L HOXIE, M.E., M.M.E., Assistant in Physics,
55 Cascadilla Place
- WILLIAM NICHOLS BARNARD, M.E., Assistant in Machine Design,
84 Eddy Street
- EDWARD LOCKHART MOORE, B.S. in Agr., Demonstrator of Veterinary Anatomy,
16 Hazen Street
- JESSE MOORE TALMADGE, B.S., Assistant in Chemistry,
150 North Aurora Street
- BENTON SULLIVAN MONROE, A.M., Assistant in English,
189 East State Street
- IRA WELSH McCONNELL, C.E., Assistant in Civil Engineering,
49 Huestis Street
- FRANK KENNETH CAMERON, A.B., Ph.D., Research Assistant in Physical Chemistry,
26 Osmun Place

- GEORGE NIEMAN LAUMAN, B.S.A., Assistant in Horticulture,
1 Oak Avenue
- CHESTER BICKFORD CURTIS, B.L., M.L., Assistant in Chemis-
try, 2 Elston Place
- RAY JONES STANCLIFT, V.S., Demonstrator of Veterinary Anato-
my, 57 Dryden Road
- HERBERT CHARLES FAIRBANKS, Assistant in Experimental
Engineering, 138 East State Street
-
- MARY FOWLER, B.S., First Cataloguer in the Library,
148 Cascadilla Place
- THEODORE W KOCH, A.M., Cataloguer, 38 Stewart Avenue
- EMMA AVALYN RUNNER, B.S., Cataloguer of the Zarncke Li-
brary, 91 East Buffalo Street
- GEORGE FLAVEL DANFORTH, Ph.B., Assistant in Reference
Library, 16 First Street
- MARY ELLEN GRISWOLD, B.L., Assistant in Order Department
in the Library, 19 Stewart Avenue
- JENNIE THORNBURG, B.L., Assistant in Accession Department in
the Library, 17 Stewart Avenue
- HENRY MERTON MERRIHEW, Assistant in the Law Library,
4 Edgewood Lane
- JAMES FLOYD HUBBELL, Assistant in the Law Library,
34 Hudson Street
- EDITH ANNA ELLIS, B.L., Loan Clerk in Library,
57 Farm Street
- GEORGE B TAILBY, Foreman of the Farm, 9 Reservoir Avenue
- WALTER W HALL, Assistant in Cheese Making, 42 Eddy Street
- JARED VAN WAGENEN, JR., M.S. in Agr., Assistant in Butter
Making, 3 Reservoir Avenue
- LEROY ANDERSON, M.S. in Agr., Assistant in Dairy Husbandry,
37 East Avenue
- JOHN WALTON SPENCER, Conductor in Extension Work, Ithaca
- JOHN LEMUEL STONE, B.Agr., Assistant in Extension Work,
Forest Home
- GEORGE T POWELL, Conductor in Extension Work, Ghent
- MARY FARRAND ROGERS, B.S., Assistant in Extension Work,
Ithaca
- GEORGE A SMITH, Conductor Dairy Extension Work, Frankfort
- ANNA BOTSFORD COMSTOCK, B.S., Assistant in Nature Studies,
43 East Avenue
- ABRAHAM LINCOLN KNISELY, B.S., M.S., Assistant in Exten-
sion Work in Chemistry, 104 University Avenue
- HOWARD BURT CANNON, B.S., Chief Clerk, Extension Work,
45 East Avenue

SPECIAL LECTURERS.

Besides the instruction regularly given by the resident officers of the University, a large number of lectures are delivered by non-resident lecturers on special subjects of importance. For this branch of instruction the services of eminent specialists are sought, and the number of lectures given by each lecturer varies according to the nature of the subject treated. In the year 1896-97 the lecturers and their subjects were as follows :

- ANDREW SETH, *Edinburgh, Scotland.*
Optimism and Pessimism.
- WILHELM DÖRPFELD, *Athens, Greece*
Troy and the Results of the most Recent Excavations on that Site.
The Greek Theatre, and recent Discoveries concerning its Construction and Use.
The Doric Style, and the History of its Development.
- JOHANNES CONRAD, *Halle, Germany*
Recent Social Legislation in Germany.
- PHILIP PAYNE, *Hamilton*
Hawthorne and His Art.
- JOSEPH MULLIN, *Watertown*
Corporations.
- HENRY B. BROWN, *Washington, D. C.*
Chief Justice Marshall.
- LYMAN ABBOTT, *Brooklyn*
The Ministry as a Profession.
- DANIEL G. BRINTON, *Philadelphia, Pa.*
The Study and the Sources of Primitive Religions.
Primitive Religious Expression ; in the Word.
Primitive Religious Expression ; in the Object.
The Ritual and Development of Primitive Religions.
- DAVID STARR JORDAN, *Stanford University, Cal.*
The Alaska Fur Seal.
- GROVE K. GILBERT, *Washington, D. C.*
History of Niagara Falls and Gorge.
- ANDREW D. WHITE, *Ithaca*
The Problem of High Crime in the United States.
- CHARLES P. STEINMETZ, *Schenectady*
Rotary Converter.
- JUDGE ALFRED C. COXE, A.M., *Utica*
The Law of Shipping and Admiralty.

ALBERT A. WALKER, LL.B.,	<i>Hartford, Conn.</i>
The Patent Laws of the United States.	
C. PURDY, C.E.,	<i>Chicago, Ill.</i>
The Construction of High Buildings.	
PEMBERTON SMITH, C.E.,	<i>Buffalo</i>
Experiments Upon Car Wheels.	
O. H. TITTMAN, Assistant in charge U. S. Coast and Geodetic	
Survey Office,	<i>Washington, D. C.</i>
Standards of Weight and Measure.	
CHARLES HANSEL, C.E.,	<i>Easton, Pa.</i>
Safety Appliances for Railways.	
E. D. PRESTON, C.E., Executive Officer U. S. Coast and	
Geodetic Survey,	<i>Washington, D. C.</i>
The Transcontinental Arc.	
JAMES H. FUERTES,	<i>New York City</i>
The Water Supplies of European Cities.	
ARTHUR KITSON, C.E.,	<i>Philadelphia, Pa.</i>
Fuel Gas.	
CHARLES E. EMERY, Ph.D.,	<i>New York City</i>
Progress in Mechanical Engineering.	
A. E. KENNELLY, Ph.D.,	<i>Philadelphia, Pa.</i>
Ocean Telegraphy.	
COL. H. E. PROUT,	<i>New York City</i>
Steel Rail Development.	
A. J. WURTS, B.S., M.E.,	<i>Pittsburg, Pa.</i>
Handling Electric Currents.	
O. CHANUTE, C.E.,	<i>Chicago, Ill.</i>
Aerial Navigation.	
F. A. HALSEY, M.E.,	<i>New York City</i>
Methods in Manufacturing.	
W. A. ANTHONY, C.E., A.M.,	<i>Vineland, N. J.</i>
Electrical Elevators.	
W. C. BROWN, M.E.,	<i>New York City</i>
Steam Pump Construction.	

UNIVERSITY PREACHERS.

The following were the preachers for 1896-7 :

THE REV. J. M. BUCKLEY, D.D.,	<i>New York City</i>
THE REV. SAMUEL ELIOT,	<i>Brooklyn</i>
THE REV. CHARLES CUTHBERT HALL,	<i>Brooklyn</i>

THE RT. REV. G. MOTT WILLIAMS,	<i>Marquette, Mich.</i>
THE REV. THEODORE T. MUNGER, D.D.,	<i>New Haven, Conn.</i>
THE REV. GEORGE DANA BOARDMAN, D.D.,	<i>Philadelphia, Pa.</i>
THE REV. E. WINCHESTER DONALD, D.D.,	<i>Boston, Mass.</i>
THE REV. GEORGE W. HUNTINGTON,	<i>Newburgh</i>
THE REV. JENKIN LLOYD JONES,	<i>Chicago, Ill.</i>
THE REV. GEORGE F. BEHRINGER,	<i>Nyack</i>
THE REV. C. H. PARKHURST, D.D.,	<i>New York City</i>
THE REV. LYMAN ABBOTT, D.D., LL.D.,	<i>Brooklyn</i>
THE REV. PROFESSOR NATHANIEL SCHMIDT,	<i>Ithaca</i>
THE REV. SIMON J. MCPHERSON, D.D.,	<i>Chicago, Ill.</i>
THE REV. EDWARD C. MOORE, Ph.D.,	<i>Providence, R. I.</i>
THE REV. JOHN W. CHADWICK,	<i>Brooklyn</i>
THE REV. LEIGHTON WILLIAMS,	<i>New York City</i>
THE REV. HENRY VANDYKE, D.D.,	<i>New York City</i>
THE REV. BISHOP JOHN P. NEWMAN,	<i>San Francisco, Cal.</i>
THE REV. PROFESSOR N. P. GILMAN,	<i>Meadville, Pa.</i>
THE REV. JULIAN K. SMYTH,	<i>Roxbury, Mass.</i>
THE REV. W. H. P. FAUNCE, D.D.,	<i>New York City</i>
THE REV. W. H. MILBURN,	<i>Washington, D. C.</i>
THE REV. ROBERT COLLYER,	<i>New York City</i>
THE REV. THEODORE L. CUYLER, D.D.,	<i>Brooklyn,</i>
THE REV. FRANCIS LOBDELL, S.T.D.,	<i>Buffalo</i>
THE REV. JOSEPH H. TWICHELL,	<i>Hartford, Conn.</i>
THE REV. BISHOP JOHN H. VINCENT, S.T.D., LL.D.,	<i>Buffalo</i>
THE REV. T. EDWIN BROWN, D.D.,	<i>Franklin, Pa.</i>
THE REV. ALEXANDER MCKENZIE, D.D.,	<i>Cambridge, Mass.</i>

OTHER OFFICEES.

EMMONS LEVI WILLIAMS, Treasurer,	<i>188 East State Street</i>
CHARLES BAKER MANDEVILLE, B.S., Assistant to the Treasurer,	<i>41 Eddy Street</i>
HORACE MACK, Assistant to the Treasurer in the Land Office,	<i>1 Ferris Place</i>
THOMAS TREE, Assistant to the Treasurer,	<i>188 North Aurora Street</i>
CHARLES DIBBLE BOSTWICK, A.B., LL.B., General and Legal Assistant to the Treasurer,	<i>Quarry and Buffalo Streets</i>
LOUISE SHEFFIELD BROWNELL, Ph.D., Warden of Sage Col- lege,	<i>Sage College</i>
GEORGE F. FOOTE, Business Manager of Sage College,	<i>Sage College</i>

DAVID FLETCHER HOY, M.S., Registrar, 137 *Cascadilla Place*
 ADNA FERRIN WEBER, Ph.B., Assistant to the Registrar,
Orchard Place
 HERBERT CROMBIE HOWE, B.L., A.B., President's Private Sec-
 retary, 2 *Morrill Hall*
 SARAH ADELIA BEACH, Treasurer's Stenographer,
 58 *North Geneva Street*
 ALICE BELLE CARMAN, President's Stenographer, 7 *Farm Street*
 JULIA Z KELLY, Stenographer, University Extension Work,
East State Street
 LIZZIE VERONICA MALONEY, Stenographer, Experiment Station,
 80 *Madison Street*
 JACOB PETERS, Superintendent of Buildings and Grounds,
 8 *South Plain Street*
 WILLIAM C DEAN, Superintendent of Steam Heating and Water
 Service, 3 *Second Street*
 CHARLES EZRA CORNELL, A.B., LL.B., Clerk in the New York
 State Veterinary College, 79 *East Seneca Street*

ATHLETIC ASSOCIATION.

The Cornell Athletic Association is an independent organization incorporated under the laws of the State of New York. Its board of trustees is composed of seven representatives from the Trustees, Alumni, and Faculty of the University; and of eight students representing officially the different branches of athletics. The Association owns Percy Field, the boats and boat houses, and a steam-launch. It is also charged with the general management of the athletic interests of the University. The graduate treasurer is custodian of the funds belonging to the Association and to the various branches. The officers and members of the Association, which is termed the Athletic Council, are as follows:

OFFICERS.

E. W. HUFFCUT,	President.
R. H. TREMAN,	Graduate Treasurer.
E. P. ANDREWS,	Secretary.

MEMBERS.

R. H. Treman, of the Trustees; E. P. Andrews, member at large; L. M. Dennis, E. Hitchcock, Jr., E. W. Huffcut, B. I. Wheeler, and H. S. White, of the Faculty; and of the students: W. C. White, manager of the navy; F. D. Colson, captain of the crew; J. H. Gannon, Jr., baseball manager; C. V. P. Young, baseball captain; H. H. Tuller, football manager; A. E. Whiting, football captain; E. M. Bull, manager of the athletic team; C. U. Powell, captain of the athletic team.

ADMISSION AND CLASSIFICATION.

CONDITIONS OF ADMISSION.

Candidates must be at least *sixteen* years of age or, if women, *seventeen*. In the College of Law the minimum age is *eighteen* years. They must have certificates of good moral character, and students from other colleges or universities are required to furnish from those institutions certificates of honorable dismissal.

Candidates for admission must file their credentials and obtain permits for examination at the Registrar's office. The results of the examinations may be ascertained from the Registrar.

ENTRANCE EXAMINATIONS.

Examinations in all the subjects required for admission to the University are held, *at Ithaca only*, twice in the year as follows: 1. In June, at the end of the spring term; 2. In September, at the beginning of the fall term. No examination of candidates for admission will be held at any other time or place. Further information in regard to the time of examinations may be found on pp. 7 and —. Specimen copies of examination papers will be sent on application to the Registrar.

ADMISSION ON EXAMINATION.

1. THE PRIMARY ENTRANCE EXAMINATIONS.

(Required for all courses, but not sufficient for admission to the University without the advanced examinations indicated on pp. 33-38).

1. In *English*. One hour of examination is assigned to answering questions upon the books marked *A*. Two more hours are occupied with writing three essays (250 words each) upon subjects taken from the books marked *B*.

The books prescribed for 1898 are: *A*. Milton, *Paradise Lost*, Books i and ii; Pope, *Iliad*, Books i and xxii; The Sir Roger de Coverly Papers in the *Spectator*; Goldsmith, *The Vicar of Wakefield*; Coleridge, *The Ancient Mariner*; Southey, *Life of Nelson*; Carlyle, *Essay on Burns*; Lowell, *The Vision of Sir Launfal*; Hawthorne, *The House of the Seven Gables*. *B*. Shakespeare, *Macbeth*; Burke, *Conciliation with America*; DeQuincey, *Flight of a Tartar Tribe*; Tennyson, *The Princess*.

For 1899: *A*. Dryden, *Palamon and Arcite*; Pope, *Iliad*, Books i,

vi, xxii, xxiv; The Sir Roger de Coverly Papers in the Spectator; Goldsmith, The Vicar of Wakefield; Coleridge, The Ancient Mariner; DeQuincey, The Flight of a Tartar Tribe; Cooper, The Last of the Mohicans; Lowell, The Vision of Sir Launfal; Hawthorne, The House of the Seven Gables. *B.* Shakespeare, Macbeth; Milton, Paradise Lost, Books i and ii; Burke, Conciliation with America; Carlyle, Essay on Burns.

For 1900: *A.* Dryden, Palamon and Arcite; Pope, Iliad, Books i, vi, xxii, xxiv; The Sir Roger de Coverly Papers in the Spectator; Goldsmith, The Vicar of Wakefield; Scott, Ivanhoe; De Quincey, The Flight of a Tartar Tribe; Cooper, The Last of the Mohicans; Tennyson, The Princess; Lowell, The Vision of Sir Launfal. *B.* Shakespeare, Macbeth; Milton, Paradise Lost, Books i and ii; Burke, Conciliation with America; Macaulay, Essays on Milton and on Addison.

The object of the examination is to test the candidate's ability to express himself clearly and correctly; also, to test his familiarity with the works prescribed.

No candidate markedly deficient in English will be admitted to any course in the University.

Regents' diplomas are not accepted in place of the entrance examination, unless they cover eight academic English counts, including English Composition, or three full years of the English course established by the Regents, February, 1893. School certificates are not accepted in place of the entrance examinations. But candidates coming from schools the certificates of which have been accepted in other subjects may obtain exemption from the one-hour examination in books marked *A*, by submitting specimens of school work upon these books. Printed directions to this end must be procured from the Registrar, not later than the first of January.

Graduates of high schools and academies of approved standing and holders of a Regents' diploma or any sixty count Regents' certificate are admitted to the College of Law without an examination in English.

2. In *Geography*, political and physical; as much as is contained in the larger school geographies, though more careful treatises such as those of Longmans and of Keith Johnson are recommended.

3. In *Physiology and Hygiene*; the equivalent of Martin's "The Human Body" (briefer course), and of Wilder's "Health Notes" and "Emergencies." The treatises of Hutchinson, Huxley, Jenkins, Steeles, and Walker are accepted as equivalents of Martin.

[In the next Register the above list will probably include only the last editions of the secondary and short treatises of Jenkins, Martin, and Wilder, but recent works intended for uses in colleges will be accepted as equivalents.]

4. In *History* two of the four following subjects must be offered:

(This requirement is the same as that agreed upon by the Conference of representatives from Columbia, Harvard, Pennsylvania, Princeton, Yale, and Cornell Universities.)

(a) The History of Greece to the death of Alexander, with due reference to Greek life, literature, and art.

(b) The History of Rome to the accession of Commodus, with due reference to literature and government.

(c) English History, with due reference to social and political development.

(d) American History, with the elements of Civil Government. It is expected that the study of American History will be such as to show the development and origin of the institutions of our own country; that it will, therefore, include the colonial beginnings; and that it will deal with the period of discovery and early settlement sufficiently to show the relation of peoples on the American continent, and the meaning of the struggle for mastery.

It is deemed very desirable that Greek and Roman History be offered as a part of the preparation of every candidate.

In addition to the examination, satisfactory written work done in the secondary school, and certified by the teacher, will constitute a considerable part of the evidence of proficiency required. This requirement may be met by the presentation at the examination of a note book or bound collection of notes.

Such written work should include practice in some of the following:

Notes and digests of the pupil's reading outside the text-books; written recitations requiring the use of judgment and the application of elementary principles; written parallels between historical characters or periods; brief investigations of topics limited in scope, prepared outside the class-room, and including some use of original material where available; historical maps or charts, made from printed data and comparison of existing maps, and showing movements of exploration, migration or conquest, territorial changes or social phenomena.

The examinations in history for entrance to the University will be so framed as to require comparison and the use of judgment on the pupil's part, rather than the mere use of memory. The examinations will presuppose the use of good text-books, collateral reading, and practice in written work. Geographical knowledge will be tested by requiring the location of places and movements on an outline map.

(The following requirements in Mathematics are the same as those agreed upon by the Conference of representatives from Columbia, Harvard, Pennsylvania, Princeton, Yale, and Cornell Universities.)

5. *Plane Geometry* : Including the solution of simple original exercises, numerical problems, and questions on the metric system ; as much as is contained in the larger American and English text-books.

6. *Algebra*.—Factors, common divisors and multiples, fractions, equations of the first degree with one or more unknown quantities, involution including the binomial theorem for positive entire exponents, evolution, the doctrine of exponents, radicals and equations involving radicals, quadratic equations of one or two unknown quantities and equations solved like quadratics, ratio and proportion, and putting problems into equations, and including radicals ; as much as is contained in the larger American and English text-books.

[In the fundamental operations of Algebra, such as multiplication and division, the management of brackets, the solving of numerical and literal equations of the first and second degrees, the combining and simplifying of fractions and radicals, the interpretation and use of negative quantities and of 0 and ∞ , the putting of problems into equations—the student should have distinct notions of the meaning and the reason of all that he does, and be able to state them clearly in his own language ; he should also be able to perform all these operations, even when somewhat complex, with rapidity, accuracy, and neatness ; and to solve practical problems readily and completely. In his preparatory study he is advised to solve a great many problems, and to state and explain the reasons for the steps taken.

In Geometry he should learn the definitions accurately, whether in the language of the text-book or not, and in proving a theorem or solving a problem he should be able to prove every statement made, going back step by step till he rests upon the primary definitions and axioms. He should be able to apply the principles of geometry to practical and numerical examples, to construct his diagrams readily with rule and compass, and to find for himself the solutions of simple problems and the demonstrations of simple theorems. To cultivate this power of origination, he should always, before reading the solution or proof given in his text-book, try to find out one for himself, making use, if necessary, of his author's diagram ; and if successful, he should compare critically his own work with his author's, and see wherein either is the better. Besides oral recitations, he is advised to write out his demonstrations, having regard both to the matter and to the form of his statements ; and when written he should carefully study them to make sure, first, that he has a complete chain of argument, and secondly, that it is so arranged that without defect or redundancy one step follows as a logical consequence of another.]

ENTRANCE REQUIREMENTS IN MATHEMATICS

FOR THOSE STUDENTS WHO INTEND TO ENTER THE COURSES IN CIVIL ENGINEERING, IN MECHANICAL ENGINEERING, IN ELECTRICAL ENGINEERING, AND IN ARCHITECTURE. SEE PAGE 35.

Of the preparatory work for entrance to the above courses two things are specially demanded.

I. That it shall have developed in the student a certain degree of mathematical maturity, and familiarized him with the subject matter and methods of mathematical work.

II. That it shall have furnished him with those specific facts, an accurate and ready knowledge of which is indispensable in the further prosecution of his professional study.

The first of these demands is fairly well satisfied in the case of students who have conscientiously performed the mathematical work required for a Regents' diploma or for a diploma from one of our better high schools. A careful review of this part of the student's work, given immediately before entering the University, would give him a broader and more comprehensive knowledge, would make clear to him the reasons for many things which he did not understand when he first went over them, and would equip him with better and more rapid methods of work. Thus informed, his work in the University would not only be much easier for him, but it would also mean much more to him, and such a review is therefore advisable.

On the other hand, most students who fail in their university mathematics fail because they are poorly equipped in the second requirement above mentioned. For example: they cannot perform the ordinary operations of algebra rapidly nor accurately, they do not know the theory of quadratic equations, they are lost among trigonometric formulæ, and they blunder when they use logarithms. Instead of spending their time and energy upon their new work, they must spend much of it in studying up those things with which they ought to be familiar, and, thus handicapped, they cannot keep up the pace set by men who are properly prepared, and they cannot do the work that must be done to fit them for the professional work that follows. They become discouraged and disheartened, and they soon rank as third-rate men, when a little care in their preparation might have made them first-rate men.

The list of topics on which a student should be prepared is set forth in this Register, pp. 35 and 36; but perhaps those things in which his deficiencies are most manifest, and most fatal, are these :

In algebra : the binomial theorem, operations with radicals and exponents, logarithms, proportion, factoring, the solution of simple and quadratic equations in one and two unknown elements, and specially the theory of the quadratic equation in one unknown element,—the conditions that the roots shall be real or imaginary, equal or unequal, and that one or both of them should become zero or infinite.

In plane trigonometry : the definitions of the trigonometric ratios, the notion of projections, the functions of related angles, the addition theorem including its applications to half angles and double angles, the conversion formulæ, the inverse functions, the law of sines and that of cosines, the circular measure of angles, and the numerical values of the functions of the following angles : 0° , 30° , 45° , 60° and 90° .

With reference to these two groups of subjects it is not sufficient that the student *should once have known them* : he must know them *at the time when he begins his work here*. It seems absolutely essential, therefore, that these subjects be very carefully reviewed just prior to entrance.

It may also be added that the subject of Interpolation is usually not sufficiently well understood.

II. ADVANCED EXAMINATION FOR ADMISSION TO THE VARIOUS COURSES.

For admission to the various courses of study, examinations *in addition to the Primary Entrance Examinations* are required as follows :

TO THE COURSE LEADING TO THE DEGREE OF BACHELOR OF ARTS.

In addition to the primary entrance examinations as given on pages 29-32, the applicant must offer either A, B, or C, as below.

A.

1. In *Greek* : candidates are examined on (1) Grammar. A thorough knowledge of the common forms, idioms and constructions and of the general grammatical principles of Attic prose Greek, to be tested by an examination on a prescribed portion of Xenophon (for the next five years Xenophon's *Anabasis*, Books I and II). The test is to consist in part of questions, in part of simple sentences set for translation into Greek ; it may include also translation from Greek into English. (2) Attic prose at sight. Ability to translate at sight a passage adapted to the proficiency of those who have read not less than 130 Teubner pages of Attic prose. The candidate is expected to show in his translation accurate knowledge of the forms and structure of the language, and an intelligent comprehension of the whole passage. (3) Homer. Ability to translate a passage from some prescribed portion of Homeric poems (for the next three years, *Iliad*, Book I and Book II, vv. 1-493), and to answer questions designed to test the candidate's understanding of the passage, as well as questions upon poetic forms, constructions, and prosody.

2. In *Latin* : candidates are examined (1) in the following authors : with questions on subject-matter, constructions, and the formation and inflection of words ; Vergil, six books of the *Æneid*, with the prosody ; Cicero, six Orations, including the four against Catiline ; the translation at sight of passages adapted to the proficiency of candidates who have studied Latin in a systematic course of at least five lessons a week for three years, the passages to be selected from Nepos or Cæsar ; and (2) Latin composition based on Bennett's or Jones's Latin Composition.

B.

1. In *Latin* : candidates are examined (1) in the following authors : with questions on subject-matter, constructions, and the formation and inflection of words ; Vergil, six books of the *Æneid*, with the prosody ;

Cicero, six Orations, including the four against Catiline; the translation at sight of passages adapted to the proficiency of candidates who have studied Latin in a systematic course of at least five lessons a week for three years, the passages to be selected from Nepos or Cæsar; and (2) Latin Composition based on Bennett's or Jones's Latin Composition.

2. In *Advanced French* or *Advanced German* :

(*The following requirements for admission to Cornell University in Advanced French and Advanced German are the same as those agreed upon by the Conference of representatives from Columbia, Harvard, Pennsylvania, Princeton, Yale, and Cornell Universities.*)

Advanced French : (a) The translation at sight of standard French. It is important that the passages set be rendered into clear and idiomatic English. It is believed that the necessary proficiency in translation at sight can be acquired by reading, in addition to the elementary work, not less than six hundred duodecimo pages of prose and verse from the writings of at least four standard authors. A considerable part of the amount read should be carefully translated into idiomatic English. (b) The translation into French of a connected passage of English prose. Candidates will be expected to show a thorough knowledge of accidence and familiarity with the essentials of French syntax, especially the uses of tenses, moods, prepositions, and conjunctions. Careful attention should be paid to pronunciation and the uses of spoken French.

For examination no specific authors or works are designated. An examination in pronunciation and the writing of French from dictation will be included. All applicants for admission are required to present a statement from their teacher, mentioning the text-books used and the authors read, including the number of pages translated from French into English and English into French.

Advanced German. (a) More advanced grammar. In addition to a thorough knowledge of accidence, of the elements of word formation, and of the principal uses of prepositions and conjunctions, the candidate must be familiar with the essentials of German syntax, and particularly with the uses of modal auxiliaries and the subjunctive and infinitive moods. The proficiency of the applicant may be tested by questions on these topics, and by the translation into German of easy connected English prose. (b) Translation at sight of ordinary German. It is believed that the requisite facility can be acquired by reading, in addition to the amount mentioned under elementary German, (see p. 36) at least five hundred pages of classical and contemporary prose and poetry. It is recommended that not less than one-

half of this reading be selected from the works of Lessing, Schiller, and Goethe.

It is recommended that the candidate acquire the ability to follow a recitation conducted in German and to answer in that language questions asked by the instructor.

For examination no specific authors or works are designated. An examination in pronunciation and the writing of German from dictation may be included. All applicants for admission are required to present a statement from their teacher, mentioning the text-books used and the authors read, including the number of pages translated from German into English and English into German.

C.

1. In *Advanced French* as above.
2. In *Advanced German* as above.
3. In *Solid Geometry*, in *Advanced Algebra*, and in *Plane and Spherical Trigonometry*, as much as is contained in the standard American and English text-books.

TO THE COURSE LEADING TO THE DEGREE OF BACHELOR OF LAWS.

In addition to the primary entrance examinations as given on pages 29-32, the applicant must offer either A, B, or C, as above. See also under College of Law.

TO THE COURSE LEADING TO THE DEGREE OF BACHELOR OF THE SCIENCE OF AGRICULTURE.

In addition to the primary entrance examinations as given on pages 29-32, the applicant must offer either A, B, or C, as above. See also under College of Agriculture.

TO THE COURSE LEADING TO THE DEGREE OF DOCTOR OF VETERINARY MEDICINE.

For the present entrance requirements to this course see under Veterinary College and apply to the Director of the State Veterinary College, Ithaca, N. Y.

TO THE COURSES IN CIVIL ENGINEERING, IN MECHANICAL ENGINEERING, IN ELECTRICAL ENGINEERING, AND IN ARCHITECTURE.

In addition to the primary entrance examinations as given on pages 29-32, the applicant must offer as below.

1. In *Solid Geometry*, in *Advanced Algebra*, and in *Plane and*

Spherical Trigonometry, as much as is contained in the standard American and English text-books.

2. In *Elementary French* or *Elementary German* as below.

(*The following requirements for admission to Cornell University in Elementary French and Elementary German are the same as those agreed upon by the Conference of representatives from Columbia, Harvard, Pennsylvania, Princeton, Yale, and Cornell Universities.*)

Elementary French: (a) The translation at sight of ordinary nineteenth century prose. It is important that the passages set be rendered into clear and idiomatic English. It is believed that the power of translating at sight ordinary nineteenth century prose can be acquired by reading not less than four hundred duodecimo pages from the works of at least three different authors. Not more than one-half of this amount ought to be from works of fiction. This number of pages is to include not only prepared work, but all sight reading done in class. (b) The translation from English into French of sentences or of a short connected passage to test the candidate's familiarity with elementary grammar. Elementary grammar is understood to include the conjugations of regular verbs, of the more frequent irregular verbs, such as aller, envoyer, tenir, pouvoir, voir, vouloir, dire, savoir, faire, and those belonging to the classes represented by ouvrir, dormir, connaître, conduire, and craindre; the forms and positions of personal pronouns, the uses of other pronouns and of possessive, demonstrative, and interrogative adjectives; the inflection of nouns and adjectives for gender and number, except rare cases; the uses of articles, and the partitive constructions.

Pronunciation should be carefully taught and pupils be trained to some extent to hear and understand spoken French. The writing of French from dictation is recommended as a useful exercise.

For examination no specific authors or works are designated. An examination in pronunciation and the writing of French from dictation will be included. All applicants for admission are required to present a statement from their teacher mentioning the text-books used and the authors read, including the number of pages translated from French into English and English into French.

Elementary German: (a) The rudiments of grammar, and especially these topics: The declension of articles, adjectives, pronouns, and such nouns as are readily classified; the conjugation of weak and of the more usual strong verbs; the commoner prepositions; the simpler uses of the modal auxiliaries; the elementary rules of syntax and word order. The proficiency of the applicant may be tested by

questions on the above topics and by the translation into German of simple English sentences. (b) Translation at sight of a passage of easy prose containing no rare words. It is believed that the requisite facility can be acquired by reading not less than two hundred duodecimo pages of simple German.

Practice in pronunciation, in writing German from dictation, and in the use of simple German phrases in the class room is recommended.

For examination no specific authors or works are designated. An examination in pronunciation and the writing of German from dictation may be included. All applicants for admission are required to present a statement from their teacher mentioning the text books used and the authors read, including the number of pages translated from German into English, and English into German.

TO THE TWO YEAR COURSE PREPARATORY TO THE STUDY OF MEDICINE.

In addition to the primary entrance examinations as given on pages 29-32, the applicant must offer as below.

1. In *Latin*: four books of Cæsar's Gallic War or an equivalent, with a good knowledge of the grammar. 2. In *Greek*: so much as will enable the student to recognize and analyze scientific terms. (Goodell's "The Greek in English," or Coy's "Greek for Beginners" furnishes the amount required. The writing of accents is not required). 3. In *Plane Trigonometry*: as above, page 35. 4. In *Elementary French* and *Elementary German* as required for the entrance to the courses in Civil Engineering, Mechanical Engineering, and Architecture, page 36.

III. TIME AND CONDITIONS OF THE EXAMINATIONS.

The examinations are held in the following order. The dates may be found in the calendar on pages 6 and 7.

First Day.—English History, 8 A. M.; Geography, 10:30 A. M.; Plane Geometry, 3 P. M.

Second Day.—American History, 8 A. M.; Physiology, 10:30 A. M.; Elementary Algebra, 3 P. M.

Third Day.—Solid Geometry, 8 A. M.; Grecian History, 10:30 A. M.; Elementary and Advanced German and Greek, 3 P. M.

Fourth Day.—English, 8 A. M.; Latin and Trigonometry, 3 P. M.

Fifth Day.—Elementary and Advanced French, 8 A. M.; Roman History, 11 A. M.; Advanced Algebra, 3 P. M.

Candidates for admission to the University, instead of passing the

entire examination at one time, may present themselves in different years under the following conditions :

1. For the purposes of the division between two years the examinations in June and September in the same year may count as one series, the applicant, at his option, taking a part in June and a part in September.

2. Candidates are expected at their first presentation to take all the six prescribed subjects of the primary entrance examination before trying the advanced examinations.

3. No account will be taken of the result of such preliminary examinations unless at least four subjects are satisfactorily passed.

Candidates intending to offer Greek at this preliminary examination may present themselves for examination in the *Anabasis*. Those intending to offer Latin may offer *Cæsar*, or either *Vergil* or *Cicero*.

The examination in Greek for the Two Year Course Preparatory to the study of Medicine is conducted by the Professor of Physiology, who should be consulted at his office in McGraw Hall not later than matriculation day.

Students deficient in any of the subjects required for admission, who may be admitted to the University by the Faculty in spite of such deficiencies, *must make up all deficiencies within one year*, and they will not in that case be permitted to remove them by attending University instruction in those subjects ; but are required to take the necessary instruction outside of the University.

ADMISSION WITHOUT EXAMINATION.

I. ON THE REGENTS' DIPLOMA.

Diplomas issued by the Regents of the University of the State of New York are accepted in place of examinations in all the subjects required for entrance which are covered by such diplomas, including, upon the recommendation of the University departments concerned, the subjects of French and German. A statement from the teacher giving in detail the work done and the proficiency attained in these two subjects must be submitted by the holder of the diploma.

Certificates and pass cards issued by the Regents are not accepted unless they are presented by the holder of a Regents' Diploma.

To secure exemption from the entrance examination in English (see page 29), the diploma must cover eight academic English counts, including English Composition, or three full years of the English course established by the Regents, February, 1893.

These Regents' diplomas, however, do not exempt from the entrance English examination prescribed for competitors for the University scholarships, see p. 48.

Application for credit in all subjects for which credit is desired, must be made at the time of the admission of the applicant, and not be postponed to any later date in his course.

Diplomas and statements should be sent by mail to the Registrar before the opening of the term.

II. ON CERTIFICATE.

The following rules and regulations have been adopted by the Faculty of Cornell University on the subject of admission by certificate :

1. Certificates of work done in public or private schools, in or out of the state, will not be accepted in lieu of examinations, unless the applicant has completed a full course in the school, and has been duly graduated after at least one year in the school, and the University authorities are satisfied regarding the standing of the school.

2. The application for the admission of a student by certificate must be made by the principal of a school and not by the candidate himself.

3. The application from the principal must be accompanied by full and specific information with regard to the completeness and thoroughness of the studies and course in which instruction is given. In case a catalogue or circular is published, a copy thereof should also be furnished.

4. Certificates from schools whose students prove to be imperfectly fitted, will ultimately not be considered.

5. Subjects in which an examination has been passed for admission to the school, may be included in the certificate, but in all cases the full information called for by the blank should be given.

6. *No school certificate will be accepted in place of the entrance examination in English, (see pages 29, 30 and 38.)*

7. The committee having charge of the acceptance of certificates may meet at any time during the collegiate year, but the certificate should be forwarded as soon after the graduation of the student as is possible, and at least as early as the first of September.

8. The University does not engage in advance to accept the certificates of any school, and the previous acceptance of such certificates merely raises the presumption that similar certificates may be accepted again but does not establish a permanent right to such acceptance.

Application for credit in all subjects for which credit is desired,

must be made at the time of the admission of the applicant, and not be postponed to any later date in his course.

All communications on this subject and all certificates must be addressed to the Registrar, from whom also blank forms for certificates may be obtained.

III. AS SPECIAL STUDENTS.

Persons at least twenty-one years of age may be admitted as special students, without examination, provided they give evidence of ability to do creditably special work in the University, are recommended to the Faculty concerned by the professor in charge of the department of study in which they desire to take a large part of their work, and have not already been admitted to the University, nor, having applied for admission, been rejected. By Faculty action, the recommendation of a special student is to be referred to a committee for provisional acceptance before final ratification by the Faculty concerned. Candidates for admission as special students should correspond directly with the professor in whose department they expect to take work, in order to secure such recommendation. Such students may graduate in any of the courses, on condition of passing all the required examinations, including those for admission. Students are not permitted to make up deficiencies in entrance subjects by attending university instruction in those subjects, but are required to take the necessary instruction outside of the University. Special students are subject to the same regulations in regard to examinations and number of hours as students in the general course.

Special students in the College of Law are admitted at the age of twenty years.

Special students in the College of Agriculture are admitted at the age of eighteen years.

No special students are received in the College of Architecture.

The College of Civil Engineering admits as special students only graduates of other institutions pursuing advanced work, when the applicants are not candidates for a degree.

Special students in Sibley College will be expected to work with regular classes wherever practicable, and to pursue a regular mechanic arts course, such as is considered by the Director to be suitable for artisans and other optional students, not candidates for a degree.

ADMISSION TO ADVANCED STANDING.

1. ON EXAMINATION. On presenting evidence of good character, or, in case he comes from another college or university, a letter of honorable dismissal, a candidate may be admitted to any class at the beginning of any term not later than the first term of the senior year, provided he appears, on examination, to be well versed in the following subjects:

a. In the studies required for admission to the freshman class of the course which he proposes to enter. But diplomas and certificates will be received for certain of these studies, as stated on pages 38 39.

b. In all the studies already required of the class to which admission is sought, or in accepted equivalents therefor.

In a subject in which examinations are held only at stated times the candidate may, at the option of the department concerned, be required to wait until the first regularly recurring examination.

2. WITHOUT FULL EXAMINATION. Applicants for a baccalaureate degree coming from other colleges and universities, may be admitted provisionally to such standing and upon such terms as the Faculty concerned may deem equitable in each case, regard being had to the applicant's previous course of study, and to the evidence of proficiency exhibited. Every such candidate for a baccalaureate degree is required, at the time of making his application, to forward to the Secretary of the Faculty concerned, (application for admission to the Academic Department should be forwarded to the Registrar of the University) along with a catalogue of the institution in which he has studied, a careful statement, duly certified, of the studies which he has pursued, and the degree of proficiency attained therein, including his record at the *entrance* examinations and a letter of honorable dismissal. This statement should be made as full as possible, giving details of subjects taken, authors read, and in mathematics, the textbooks used. To avoid delay in arranging the course, these credentials should be presented at an early date in order that the status of the applicant may be determined as far as is feasible before his arrival. Applications for credit in all subjects for which credit is desired, must be made at the time of the admission of the applicant, and not be postponed to any later date in his course.

A student who has thus been admitted provisionally to a class, may, after residence of at least one term, be granted full and regular stand-

ing in that class, if, having taken the regular studies of the term, he give proof, by passing the regular term examinations with a record as high as is required for graduation, that he is able to go on satisfactorily with the class to which he has been temporarily assigned. Should he be unable to pass these examinations, special examinations may then be held or the terms of his admission revised, and he shall take the position and rank to which he may thereby be found entitled.

In the case of students thus admitted, the amount of work must be equal to at least fifteen hours a term for each term in the University.

ADMISSION TO THE GRADUATE DEPARTMENT. Applications for admission to the Graduate Department are to be addressed to the Dean of the University Faculty. See page 53.

RESIDENCE AND GRADUATION.

REGISTRATION EACH TERM.

At the beginning of every term each student must obtain a Certificate of registration from the Registrar of the University, and no student, after having been once admitted to the University, will be allowed to register after the close of Registration Day, except by special permission of the Faculty concerned.

REGISTRATION OF STUDIES.

Students in all courses register at the beginning of the collegiate year at the Registrar's office for the work of the entire year. No credit will be allowed for work not so registered. Changes in registration will not be allowed later than one week after Registration Day in the fall term except by special permission of the Faculty concerned.

EXERCISES OF THE TERM.

In the Academic Department, students in the freshman year may take from fourteen to seventeen hours; in the sophomore, from fourteen to eighteen; in the junior, from twelve to eighteen; in the senior, from ten to eighteen; but no student will be graduated until he has passed successfully examinations in work which, including all the required work of his course, shall amount to an aggregate of fifteen hours a week during the entire four years, exclusive of the requirement of drill and gymnasium.

In the technical courses, the number of hours required each term may be seen in the detailed statement of those courses.

In all courses, two hours and a half of laboratory work, and, in the technical courses, three hours of drafting or shop work, are regarded as the equivalent of one recitation.

PAYMENTS TO THE UNIVERSITY.

The annual tuition fee, in the College of Law, in the State Veterinary College, (except as below) in the Medical Preparatory course,

and in the courses in Arts, Philosophy, Letters, and Science, for both graduates and undergraduates, is \$100, \$40 to be paid at the beginning of the first term, \$35 at the beginning of the second, and \$25 at the beginning of the third; in all other courses, for both graduates and undergraduates (including candidates for advanced degrees *in absentia* in which case the whole fee is to be paid in advance), and for Optional and Special students, it is \$125, \$50 to be paid at the beginning of the first term, \$40 at the beginning of the second, and \$35 at the beginning of the third. *These fees must be paid at the office of the Treasurer* within twenty days after registration.

Tuition is free to *students with state scholarships*; to *New York State students* in the State Veterinary College; to students pursuing the prescribed course in *Agriculture and intending to complete* that course; and to *special and graduate students in Agriculture* taking at least two-thirds of their entire work in the departments of agriculture, horticulture, and in the courses in agricultural chemistry and economic entomology.

Students taking work in Sibley College are charged \$5 per term for material and extra expenses.

An incidental fee of \$5 per term, to cover cost of materials used, is required of all students in Agriculture, except those in the first two years of the regular course.

A fee of \$5, to cover expenses of graduation, degrees, etc., is charged to each person taking the baccalaureate degree. This fee must be paid at least ten days before Commencement.

The fee charged for an advanced degree is \$10, and it must in all cases be paid at least ten days before Commencement.

Every person taking laboratory work or practicums in chemistry, physics, zoology, botany, or entomology, must deposit with the Treasurer security for the materials to be used in the laboratory or in the practicums. Supplies in the chemical and physical departments are furnished at New York City list prices. Students residing in University buildings must pay their room bills one term in advance. All the members of the University are held responsible for any injury done by them to its property.

EXPENSES.

The expense of text-books, instruments, etc., varies from \$25 to \$75 per annum.

The cost of living in Ithaca, including board, room, fuel, and lights, varies from \$4 to \$10 per week. By the formation of clubs, students are sometimes able to reduce their expenses to \$3.50 per week for room and board, and occasionally to even less than that amount.

A fair estimate of the yearly expenses is from \$300 to \$500, but much depends upon the personal tastes of the student.

The cost for board, rent of furnished room, fuel, and lights, at the Sage College, which is exclusively for women, varies from \$5 to \$6.50 a week. A student occupying alone one of the best rooms pays \$6.50 a week. If two occupy such a room together, the price is \$5.75. Those occupying less desirable rooms, with two in a room, pay \$5 a week each. The entire building is warmed by steam, lighted by electricity, and, in most cases, the sleeping apartment is separated from the study.

The principal is ready to give suggestions as to the general culture of the young women living at the Sage College, and to act toward them at all times as a friend and adviser.

Letters of inquiry in regard to board and rooms at the Sage College should be addressed to Mr. G. F. Foote, Business Manager of the Sage College, Ithaca, N. Y.

GRADUATION.

THE FIRST DEGREE.

The degrees of Bachelor of Arts, Bachelor of Philosophy, Bachelor of Letters, Bachelor of Science, Bachelor of Laws, Bachelor of the Science of Agriculture, Doctor of Veterinary Medicine, Bachelor of Architecture, and the corresponding degrees of Civil Engineer and Mechanical Engineer, are conferred after the satisfactory completion of the respective courses.

In the case of students entering the Academic Department in and after 1897, the single degree of Bachelor of Arts will be conferred.

All these courses, except the courses in Law and Veterinary Medicine, require four years for their completion; and no student is allowed to graduate in less than four years of actual residence (except in case of admission to advanced standing, as elsewhere provided for), without special permission of the Faculty concerned; which permission will not be granted until the applicant has been in the University at least one year; nor will it be granted after the first term of the year in which he proposes to graduate.

The courses in Law and Veterinary Medicine require three years each for their completion.

Every student, in order to be recommended for a degree, must have passed satisfactorily in at least one hundred and eighty hours of work, exclusive of drill and gymnasium, and including all the required work of the course in which the degree is sought. In the case of students admitted from other colleges the amount of work must be equal to at least fifteen hours a term for each term in the University.

SPECIAL MENTION.

Students who shall devote at least five hours, with marked proficiency, during the last two years to any single subject, and pass the requisite examinations, may, upon application on or before June 1, receive mention of the fact with their diplomas. The applicant must have taken an average of at least five hours of work throughout the two years, and in no term have fallen below four hours.

TEACHERS' CERTIFICATES.

Certificates of scholarly fitness to teach, will, upon application on or before June 1, be given to such graduates as have successfully pursued the first course on the Science and Art of Teaching, (see under Philosophy) or that portion of it which relates to the general theory of education, together with the course on the history of education, and have besides attained marked proficiency in at least five hours of advanced work for two years, in each subject for which the Teacher's certificate is given, in such subjects as offer five or more hours of such work.

GRADUATION THESIS.

A graduation thesis is required of every student. This thesis must represent some phase of the student's principal line of work during the later years of his course. The subject of the thesis must receive the written approval of the professor in charge of the study to which it appertains, and with such approval must be left with the Registrar not later than the fifteenth day of October by students in the general courses, and not later than the second Friday of the second term by students in the technical courses, in order to be announced, and accepted by the Faculty concerned, without whose permission no change in the subject can thereafter be made. In order to be acceptable, the thesis must have the character of a scholarly dissertation on the subject chosen, or, in technical courses, usually, actual work in designing or research; and if finally accepted by the Faculty concerned, it will entitle the writer to a credit of two hours a week for three terms of the senior year in the general courses, or, in the technical courses, as specified elsewhere. The copy of the thesis presented to the Faculty shall, if accepted, become the property of the University. The merit of the thesis will be judged not only from a technical point of view, but also from the point of view of its literary workmanship; and its merits, as judged from these two points of view, will be taken into account in determining the standard of the student for graduation. A standard form and size for theses has been adopted, said size to be eight by ten and one-half inches.

SCHOLARSHIPS AND PRIZES.

STATE SCHOLARSHIPS.

Under the law of the State the Superintendent of Public Instruction is empowered to award annually a number of free scholarships in Cornell University equal to the number of Assembly districts in the State. These scholarships entitle the holder to free tuition for four years.

For particulars in regard to the Scholarships, application should be made to the Superintendent of Public Instruction at Albany.

Holders of State Scholarships are notified that failure to register before the close of registration day of each term involves the severance of their connection with the University and consequently the forfeiture of their Scholarships. The President of the University is required by law to send immediate notice of such vacancies to the Superintendent of Public Instruction and the Superintendent fills vacancies forthwith.

The Law provides that "any State student who shall make it appear to the satisfaction of the President of the University that he requires leave of absence for the purpose of earning funds with which to defray his living expenses while in attendance, may, in the discretion of the President, be granted such leave of absence, and may be allowed a period not exceeding six years from the commencement thereof for the completion of his course at said University." Under this provision of the charter, the President of the University will, for the purposes indicated therein, grant leave of absence after an applicant has been regularly admitted to the University. The Scholarship will then be kept good; but will not be extended for more than *four* years from its date, unless application is made after at least one year from the time of entrance, in case of applicants who have acquitted themselves creditably in the University during this period. Those holding scholarships are therefore advised, if possible, to enter the University at once, and to postpone asking for leave of absence until after one year in the University has been completed.

UNIVERSITY UNDERGRADUATE SCHOLARSHIPS.

Pursuant to the action of the Trustees there will annually be thrown open to competition for all members of the freshman class who are

registered in courses leading to first degrees, at a special examination held at the beginning of the freshman year, eighteen scholarships of the annual value of \$200.00 each.

Students of high ability from the State of New York will have the additional advantage of being able to secure State Scholarships, as there is nothing in the University statutes to prevent a student from holding both a State Scholarship and a University Scholarship.

The name of every successful competitor for these scholarships is inserted in the annual Register of the University, together with the name of the school at which the competitor was fitted for college, and the name of the principal of the school; and these names remain in the Register so long as the scholarship is retained.

The statute in regard to Scholarships is as follows:

1. There have been established by the University thirty-six undergraduate scholarships, each of the annual value of \$200.00.

2. These Scholarships are named as follows: The Cornell Scholarships; the Lord Scholarships; the McGraw Scholarships; the Sage Scholarships; the Sibley Scholarships; the President White Scholarships; the Horace Greeley Scholarships; the John Stanton Gould Scholarships; the Stewart L. Woodford Scholarships.

3. These Scholarships are given for the first two years of any course on the basis of excellence in special examinations held at the beginning of the freshman year.

4. Recipients of the above Scholarships must be free from entrance conditions.

5. These Scholarships will be given for passing examinations which shall average the highest in any three of the following groups, of which group (a) must be one. Previous to entering this competitive examination, however, candidates are required to pass satisfactorily at the University the regular entrance examination in English. *School certificates, Regents' diplomas, and Normal School diplomas* are not accepted in place of this English examination.

(a). Arithmetic, and algebra through quadratic equations.

(b). Plane and solid geometry.

(c). Greek.

(d). Latin.

(e). French.

(f). German.

The above examinations cover substantially the same ground as the entrance examinations in the respective subjects, except that the amount of French and German is that required for admission to the courses in engineering and architecture. See pages 29-37.

6. The holder of a University Undergraduate Scholarship shall forfeit the right to the same in case said scholar shall during incumbency change the course registered in at the time of receiving the award, unless the records of entrance examinations shall show that, at the time of the holder's admission to the University, all the subjects required for admission to the course last chosen were passed, and all candidates must state before the scholarships are awarded what course they intend to pursue.

7. No one shall be eligible to these Scholarships who shall have received credit for more than twenty hours of work in advance of course. Application for credit in all subjects for which credit is desired, must be made at the time of the admission of the applicant, and not be postponed to any later date in the course. All persons shall be debarred from the competition for these scholarships, who shall have participated in any previous competition for the same or shall have been in the previous year or years registered as a student in this University, or in any other University or College.

8. These Scholarships will be forfeited at any time in case two-thirds of the Faculty present at any meeting, notice having been given at the meeting immediately before, shall decide that the holders have been guilty of negligence, or of conduct of any kind that is unbecoming students holding such Scholarships.

9. Whenever any of these Scholarships shall for any reason become vacant, the vacancy shall be filled as the Faculty may determine.

10. The moneys due on Scholarships are paid at the office of the Treasurer of the University in three equal payments, on the 15th of December, the 15th of March, and the 15th of June.

11. THE FRANK WILLIAM PADGHAM SCHOLARSHIP will be assigned to the best competing candidate in the scholarship examinations in the studies required for entrance to the regular course in Mechanical Engineering, who shall have had his preparatory education in the public schools of Syracuse, New York. For particulars address the Registrar. See also under Sibley College.

PRIZES.

THE WOODFORD PRIZE founded by the Hon. Stewart Lyndon Woodford, and consisting of a gold medal of the value of one hundred dollars will be given annually for the best English oration, both matter and manner being taken into account.

The prize may be competed for under the following conditions :

1. Any member of the graduating class who is to receive a degree

at the coming Commencement, and who does not already hold a first degree, may be a competitor.

2. Every competitor shall be required to submit, at the Registrar's office on or before the first day of the spring term, an original oration upon a subject which shall have previously been approved by the Assistant Professor of Elocution and Oratory.

3. The competing orations shall be limited to fifteen hundred words and shall be written with a typewriter.

4. The orations submitted shall be read in private by their authors to a committee appointed by the Faculty, after which the committee shall examine the orations and shall select the best, not to exceed six in number, for delivery in public. The names of the successful writers shall be announced as early as is practicable after the beginning of the spring term.

5. The contest for the prize will take place on the evening of the fifth Friday of the spring term, under the direction of the President of the University.

6. The prize shall be awarded by a committee of three to be appointed by the President, and, whenever practicable, from persons not resident in Ithaca.

7. The prize shall not be conferred unless the successful competitor shall complete the course and take the degree at the Commencement next following.

8. A copy of each of the orations selected for the competition shall, within one week after the selection, be deposited by its author with the committee charged with the selection, which shall, after the completion of the competition, deposit the orations permanently in the University Library.

THE '86 MEMORIAL PRIZE.—A public contest of speakers appointed from the junior class will be held in May of each year, and the successful competitor will be awarded the '86 Memorial Prize in Declamation, being the income of a sum of money left as a memorial by the class, and amounting to about thirty dollars annually. (It is the intention of the members of the class of 1886 to make this income amount to eighty-six dollars annually.) The conditions of the contest are as follows, viz :—

1. The Assistant Professor of Elocution and Oratory is empowered to select from the students in the classes in Elocution, twelve members of the junior class whose general excellence in that course, in his judgment, warrants their competing for the prize.

2. The announcement of this selection is to be made not later than the middle of the third term.

3. The contest for the prize takes place on the evening of the fourth Friday preceding Commencement, under the direction of the Assistant Professor of Elocution and Oratory.

4. The prize is awarded by a committee appointed by the President of the University.

THE HORACE K. WHITE PRIZES in Veterinary Science. See under the State Veterinary College.

SIBLEY PRIZES IN MECHANIC ARTS. See under Sibley College.

THE MRS. A. S. BARNES SHAKESPEARE PRIZE.—A prize of fifty dollars, offered by Mrs. A. S. Barnes, is given annually for the best essay on some subject connected with the plays of Shakespeare, written by a student of Cornell University. The essay must be written with a typewriter, must be completed and deposited with the Registrar on or before the first day of June, and must bear, in every case a fictitious signature, accompanied with the name of the writer in a sealed envelope.

The subject of the Essay, for 1897-'98, will be: "The departures from the facts of history in the English Historical Plays, and the subserviency of these departures to the dramatic motives."

THE FUERTES MEDALS.—See under the College of Civil Engineering.

THE '94 MEMORIAL PRIZE.—A public debating contest, open to undergraduates, is held each year, and the successful competitor is awarded the '94 Memorial Prize, being the income of a fund established by the class of '94 and amounting to about twenty-five dollars annually. The conditions governing the debate are as follows:

1. Any undergraduate student of Cornell University may become a competitor for this prize.

2. From the whole body of competitors there shall be selected by the University Faculty, in such manner as may seem best, the debaters, not to exceed eight in number, who shall take part in the final competition.

3. The final competition shall take place at a public debate to be held annually, under the direction of the President of the University, at such date and place and in such manner as shall be from time to time determined by the University Faculty.

4. The question for each competition shall be selected by the professor of oratory, subject to the approval of the University Faculty, and shall be publicly announced by him at least four weeks before the date set for each debate.

5. The prize shall be awarded by a committee of three judges appointed annually by the President of the University, to that com-

petitor who shall be deemed by them the most effective debater, account being taken both of his thought and of its expression.

6. Any undergraduate who has already taken the prize may be selected by the University Faculty as an additional speaker, but may not be awarded the prize.

THE NATIONAL SOCIETY OF THE SONS OF THE AMERICAN REVOLUTION MEDAL.—A silver medal offered by the National Society of the Sons of the American Revolution is given annually for the best essay on the "Principles Fought for in the War of the Revolution" to a member of the senior class. The essay must contain not less than sixteen hundred nor more than two thousand words, must be written with a typewriter, must be completed and deposited with the Registrar on or before the first Monday in May, and must bear in every case a fictitious signature accompanied with the name of the writer in a sealed envelope.

THE ALUMNÆ SCHOLARSHIP is an undergraduate scholarship of \$100 for the present University year, and a like sum for each year hereafter so long as the sum is raised by the Associate Alumnæ by annual subscription. The scholarship is to be given under the following conditions :

1. It shall be awarded to a self supporting woman who has already spent at least one year in the University as a student.

2. The basis of award shall be excellence of scholarship as shown by the University records, and a need of financial aid.

3. The nomination for the scholarship shall be made by a committee of the Alumnæ, who, after consultation with the Dean of the University Faculty and the Registrar as to the standing of the applicants, shall decide as to which one of them will be most benefitted by the financial aid of the scholarship.

4. The approval of said nomination by the President of the University shall constitute an appointment.

THE COLLEGE OF LAW THESIS PRIZE.—A fund of two thousand dollars has been given by a friend of the College, the income of which is devoted each year, under the direction of the Law Faculty, either for prizes for graduating theses or for printing theses of special merit, or for both such purposes. The way in which the income is to be applied is determined each year upon the presentation of theses. All theses submitted for this prize must be delivered to the Secretary on or before May 1st. See under College of Law.

GRADUATE DEPARTMENT.

Courses appropriate for graduate students and leading to advanced degrees are provided in the various departments, as indicated in the list of courses of instruction, and in the description of the departments and colleges. An inspection of these courses will show that the amount of instruction offered is greatly in excess of the amount of which any person can avail himself while an undergraduate student. Many of the courses are open to undergraduates who have prepared themselves by taking the necessary preliminary electives, but a large number of courses are specially adapted to the wants of graduate students. No sharp line of demarcation separates the two classes, but in all cases the necessary prerequisite work must have been taken. In nearly or quite every branch of study the advanced courses of lectures and the seminars and laboratories afford abundant opportunities for carrying on profitable work of a high grade during two or three years after the baccalaureate degree has been taken. The facilities thus afforded commend themselves specially to graduates of those colleges which do not offer a large range of electives during the undergraduate course.

LABORATORY AND SEMINARY FACILITIES.

In all the graduate work the aim is to surround the student with an atmosphere of earnest devotion to the cause of the advancement of knowledge, and to excite a truly scholarly spirit. The greater part of such work is carried on in the numerous well equipped laboratories and seminars, in which the student, with the aid and under the intimate personal guidance and direction of the professor, is encouraged in the prosecution of original investigation of an advanced nature.

Graduate students have access to the alcoves of the library, as well as to the special collections in the seminary rooms, and thus have exceptional opportunities for prosecuting advanced work. The great library building, with its rich collections, affords an attractive and inspiring environment.

FELLOWSHIPS AND GRADUATE SCHOLARSHIPS.

Applications for fellowships and graduate scholarships should contain a full statement of the branches of study which the candidate in-

tends to carry on, if appointed ; and if any literary or scientific work has been produced that could be put in evidence, a copy should accompany the application. Those candidates who are graduates of other colleges or universities should submit recommendations from the instructors best acquainted with their ability and attainments in the special subjects which they desire to pursue. It should be borne in mind by such applicants that information cannot be too exact or too full in the case of students not personally known to the appointing body.

The Statute in regard to Fellowships and Graduate Scholarships is as follows :

1. There have been established at this University the following Fellowships and Graduate Scholarships :

(a). Eight University Fellowships, denominated respectively, the Cornell Fellowship ; the McGraw Fellowship ; the Sage Fellowship ; the Schuyler Fellowship ; the Sibley Fellowship ; the Goldwin Smith Fellowship ; the President White Fellowship ; and the Erastus Brooks Fellowship.

(b). Four University Fellowships.

The above twelve University Fellowships have been assigned to the following Departments or groups of Departments : Mathematics, Chemistry, Physics, Civil Engineering, Physiology and Vertebrate Zoology (including Anatomical Methods and Human Anatomy and Microscopy, Histology, and Embryology) with Invertebrate Zoology and Entomology, Botany and Geology, Architecture, Agriculture and Horticulture and Veterinary Science, English, Germanic and Romance Languages, one each ; Mechanical and Electrical Engineering, two.

(c). Two President White Fellowships, denominated : first, the President White Fellowship of Modern History ; second, the President White Fellowship of Political and Social Science.

(d). Three Susan Linn Sage Fellowships in Philosophy.

(e). Two Fellowships in Political Economy.

(f). Two Fellowships in Greek and Latin.

(g). One Fellowship in American History.

The President White Fellowships in History, and Political and Social Science have an annual value of \$600.00 each ; the others have an annual value of \$500.00 each.

(h). Six Graduate Scholarships in the Susan Linn Sage School of Philosophy, each of the annual value of \$300.

(i). Eleven Graduate Scholarships, each of the annual value of \$300.00, have been assigned to the following Departments or groups

of Departments: Mathematics, Chemistry, Physics, Civil Engineering, Latin and Greek, Archæology and Comparative Philology, Physiology and Vertebrate Zoology (including Anatomical Methods and Human Anatomy and Microscopy, Histology, and Embryology) with Invertebrate Zoology and Entomology, Botany and Geology, English, Germanic and Romance Languages, American History, one each.

(j). The Oliver Graduate Scholarship in Mathematics, founded November, 1896, in memory of Professor James Edward Oliver, has an annual value of \$300.00 and is awarded under the same conditions as other graduate scholarships.

2. All candidates for Fellowships and Graduate Scholarships must be graduates of this University, or of some other institution having equivalent courses of instruction, and must be of high character and marked ability in some important department of study.

Fellows and Graduate Scholars will be selected by the University Faculty on the recommendation of the department in which the applicants desire to carry on the principal part of their work.

4. All applications and testimonials must be filed with the Registrar on or before the 15th of May of the collegiate year preceding the one for which the application is made. Blank forms for application may be obtained from the Registrar.

5. The term of each Fellowship and Graduate Scholarship is one year; but the term may be extended to two years, providing the extension does not increase the number of Fellows and Graduate Scholars beyond that named in paragraph 1 of this act.

6. The moneys due on Fellowships and Graduate Scholarships are paid at the office of the Treasurer of the University in three equal payments, on the 15th of December, the 15th of March, and the 15th of June.

7. In view of the fact that practical University instruction will be of use in training said Fellows and Scholars for future usefulness, each holder of a Fellowship or Graduate Scholarship shall be liable to render service to the University in the work of instruction or examination to the extent of four hours per week through the collegiate year. The distribution and assignment of this service shall be determined by the head of the department in which the Fellow or Scholar is doing the principal work. It is expected that the President White Fellows in History and Political Science will do a large part of their study in the President White Library, and to this end, it is required that, except when, with the consent of the librarian of the University, they are excused or assigned to other duties by the Faculty of History and

Political Science, said Fellows shall be in attendance in the Library not less than four hours each per day.

8. No person shall hold at one time more than one Fellowship or Graduate Scholarship, except in the case hereafter specified under paragraph 12 of this statute, and any Fellow or Scholar may be dispossessed of the income of the Fellowship or Graduate Scholarship by action of the University Faculty, if guilty of any offense, or of any course of conduct which in the opinion of said faculty shall render the holder unworthy of retaining such Fellowship or Graduate Scholarship; but final action in such cases by the Faculty shall be by ballot, and shall require a two-thirds vote.

9. Vacancies in Fellowships and Graduate Scholarships that occur after October 1st, in order to be filled, shall require a three-fourths vote of the Faculty present.

10. All persons elected to Fellowships are required, upon accepting their appointments, to file a bond of one thousand dollars (with two sureties to be approved by the Treasurer), to pay the University in case of their resignation before the expiration of the time for which they were appointed, any sums which they may have received.

11. In all cases where Fellowships and Graduate Scholarships are not awarded, or when from any cause the income of one or more Fellowships or Graduate Scholarships may cease to be paid, or when the aggregate sum paid shall be less than the amount contemplated by this act, the surplus thus accruing shall be added to the principal of the loan fund for needy and meritorious students.

12. Either or both of the President White Fellowships in History and Political Science may in the discretion of the University Faculty, be made a Travelling Fellowship for the purpose of study and investigation, the holder thereof making from time to time to said Faculty such reports of progress as may be required. In the case of a student of very exceptional ability and promise in the fields of either of these Fellowships, the two Fellowships may, in the discretion of said Faculty for the sake of enabling very thorough research, be combined for a single year into one.

ADMISSION.

Graduates in the several courses of this University, or of other institutions in which the requirements for the baccalaureate degree are substantially equivalent, may, upon the recommendation of the Committee on Graduate Work and Advanced Degrees, be admitted to the graduate department. Such applicants may further be admitted to candidacy for the Master's and Doctor's degree on recommendation

of the same committee, in case the previous course of study and preparation in the major and minor subjects to be pursued is accepted as adequate by the departments concerned. Graduate students who are not candidates for a degree, as well as those who are, are required to work under the direction of a special committee of the University Faculty, appointed for the purpose of supervising and directing their work. Tuition fees are charged in all cases, including candidacy for degrees *in absentia*. All graduate students are at liberty to attend any of the exercises of the University ; but under the guidance of the appropriate committee every such student is expected to take an amount of work not less than the minimum required of undergraduates during the senior year. See page 43.

Applications for admission to the graduate department are to be addressed primarily to the Dean of the University Faculty. Full details should be forwarded of the candidate's previous course of study, the degree desired, and the special preparation already had in the major and minor subjects to be pursued.

The applicant would naturally communicate also with the professors in whose departments he intends to study, as they must ultimately approve of his application.

In acting upon an application for graduate work, the first question to be decided is whether the degree already taken by the applicant is substantially the equivalent of one of our own degrees, so that the applicant may be admitted to graduate study. Full information upon this point is therefore required, including a general statement of the character of the course pursued, with special reference to the amount of mathematics and languages. Blank forms of application may be obtained from the Dean of the University Faculty.

After this point has been decided, the second question is, whether the applicant is qualified to enter upon advanced work in the special departments of study in which the advanced degree is desired. In order to decide this question a specific and detailed statement is to be made of the previous course of study and preparation in the major and minor subjects to be pursued. This statement is then submitted to the departments concerned for approval.

Official evidence of all the above statements must ultimately be presented.

After the status of the applicant is determined by the general committee, he is then put under the supervision of the special committee conducting the work which he desires to pursue. This special committee is made up of the professors in charge of the work in the major and minor subjects. It has been decided by the Faculty that instruc-

tors are not eligible for membership on the special committees nor on the committees conducting examinations. The chairman of the special committee, after consultation with the other members of the committee, is assumed to represent their views or action, and to be the regular channel of communication between candidates and the general committee; conveying or indorsing, for instance, petitions from candidates, and forwarding recommendations for changes in the announcements of major and minor subjects, or additions suggested to the membership of the special committee itself, either for the guidance of the work of candidates or to complete the number of examiners.

The function of the general committee is to decide matters of precedent or procedure or policy, securing Faculty action where necessary, and to be the channel of communication between the special committees and the University Faculty.

ADVANCED DEGREES.

Courses of graduate study leading to advanced degrees are provided in the following departments: Semitic Languages, Classical Archæology and History of Art, Comparative Philology, Greek, Latin, Germanic Languages, Romance Languages, English Literature and English Philology, Philosophy, History and Political Science, Mathematics and Astronomy, Physics, Chemistry, Botany and Arboriculture, Entomology and General Invertebrate Zoology, Physiology and Vertebrate Zoology, Anatomical Methods and Human Anatomy, Microscopy and Histology and Embryology, Geology and Paleontology and Mineralogy, Agriculture, Horticulture, Veterinary Science, Architecture, Civil Engineering, including, Bridge, Railroad, Sanitary, Hydraulic, and Geodetic Engineering, and in Mechanical Engineering, including Electrical, Steam and Marine Engineering, Naval Architecture, and Railway Machinery.

Candidates for advanced degrees must present themselves for examination in one major and two minor subjects, (except for the Master's degree, for which one major and one minor are required), which must have been determined upon, with the approval of a committee of the University Faculty, as early as October 15 of the year in which the degree is expected to be given, if it be the Master's degree, or of the year preceding that in which the degree is expected to be given, if it be the Doctor's degree.

The above date is the limit for the acceptance of applications and for the selection of majors and minors, in the case of applicants who desire to receive credit for attendance during the whole of the academic year then entered upon.

The work of candidates for advanced degrees in the general courses must be devoted to those subjects (one major and one or two minors), which may be comprised within the limits of one department of instruction, or may extend to two or three; with the provision, however, that, except in cases of special permission to the contrary granted by the University Faculty, the subjects shall be so related to one another as to imply a definite aim on the part of the student. The subject of the thesis required with the written approval of the special committee in charge of the work of the candidate, must be filed with the Registrar and be announced to the University Faculty as early as December 1 of the year in which the degree is expected to be given, and the paper in its completed form must be presented as early as May 1.

The degree of Master is intended to represent a year of faithful work of an advanced character performed by a student who has previously taken a degree fully equivalent to that which is given in this University at the completion of four years of undergraduate work. The degree of Doctor is intended to represent not a specified amount of work, covering a specified time, but long study and high attainment in a special field, proved, in the first place, by the presentation of a thesis which displays the power of independent investigation, and in the second place, by passing corresponding examinations upon the ground covered by the three subjects chosen at the beginning of the candidacy and approved by the University Faculty.

Successful candidates for the degree of Doctor must print their theses and deposit fifty copies in the University Library. In the title page of each of these copies shall appear the statement that the thesis was presented to the University Faculty of Cornell University for the degree in question. The diploma for the degree shall be withheld until the required number of copies of the theses shall be so deposited. Successful candidates for the degree of Master must deposit one copy.

A text book presumably written and published without reference to the degree for which it was presented, will not be accepted.

The final examination for these degrees may be both oral and written, and in the non-technical courses are to be in charge of a committee of not less than three members, except for the Master's degree, where two members may suffice. These examinations occur in the second week before Commencement, except in the case of candidates who take their examination in a year subsequent to that in which the required amount of resident study was completed. In case of necessity, the examination may be held during the week next preceding that now fixed for holding them.

In the final examination for advanced degrees, the examination of the thesis shall regularly precede the further examination of the candidate. In the case of students who take the examination in the year subsequent to that in which the required amount of study has been completed, the special committee is authorized to arrange such examinations at any time during the University year; provided that two weeks' notice shall be given to the chairman of the general committee.

The special requirements for these degrees will be as follows:

THE DEGREES OF MASTER OF ARTS, OF ARCHITECTURE, OF CIVIL ENGINEERING, OF MECHANICAL ENGINEERING, OF AGRICULTURE.

Hereafter, in place of the degrees of Master of Arts, Master of Philosophy, Master of Letters, and Master of Science, the one degree of Master of Arts is to be conferred.

The degree of Master of Science in Architecture is to be conferred as heretofore on those who have taken the corresponding baccalaureate degree here, or at some other college or university where the requirements for that degree are equal to those of this university, in case the candidate has spent at least one year at the University, pursuing an accepted course of study.

The degree of Master of Civil Engineering, Master of Mechanical Engineering, or Master of Science in Agriculture is conferred after one year of resident study on candidates who have received the corresponding first degree, upon presenting a satisfactory thesis and passing the required special final examination as above. In special cases graduates of this University, on the recommendation of the special committee that would have charge of their work, may, by vote of the University Faculty in each case, become candidates for the degree of M.C.E., M.M.E., and M.S. in Agr., after two years of professional practice and study *in absentia*.

Candidates for degrees *in absentia* are to appear in person at the University to be examined, and to receive the diploma at Commencement.

The time spent in study for the Master's degree, whether that degree be taken or not, may be counted in the time required for the Doctor's degree, provided the special committee in charge of the work approves, certifying the work done as suitable to such Doctor's degree.

THE DEGREE OF DOCTOR OF PHILOSOPHY.

Hereafter, in place of the degrees of Doctor of Philosophy and

Doctor of Science the one degree of Doctor of Philosophy is to be conferred.

The degree of Doctor of Philosophy is conferred on graduates of this University, and of other universities and colleges whose requirements for the baccalaureate degree are equal to those of this University, on the following conditions :

1. In order to become a candidate, the applicant must have pursued a course of study substantially equivalent to that required for graduation in this University in any of the general courses.

2. The candidate is expected to spend at least three years at the University pursuing a course of study marked out by the University Faculty. In cases of exceptional proficiency a candidate may be recommended for the degree at the expiration of a shorter period. A year of graduate work in a University elsewhere, may, by a special vote of the University Faculty, be accepted in place of a year's work in the University.

3. He must present a thesis of such a character as shall display power of original and independent investigation, and must pass the requisite special final examinations. Before the degree is conferred, a type-written copy of the thesis must be deposited in the University Library. [See also p. 59.]

The work of graduate students is expected to be in large measure independent of the regular courses of instruction. The special announcements of each department and college will, however, indicate the courses which are available as a basis for graduate work.

ACADEMIC DEPARTMENT.

FACULTY OF ARTS AND SCIENCES.

JACOB GOULD SCHURMAN, A.M., D.Sc., LL.D., President.

THOMAS FREDERICK CRANE, A.M., Dean, and Professor of the Romance Languages and Literatures.

THE REV. WILLIAM DEXTER WILSON, D.D., LL.D., L.H.D., Professor of Moral and Intellectual Philosophy, Emeritus.

GOLDWIN SMITH, D.C.L., LL.D., Professor of English History, Emeritus.

GEORGE CHAPMAN CALDWELL, B.S., Ph.D., Professor of General Chemistry and of Agricultural Chemistry.

BURT GREEN WILDER, B.S., M.D., Professor of Physiology, Vertebrate Zoology, and Neurology.

HIRAM CORSON, A.M., LL.D., Professor of English Literature.

WATERMAN THOMAS HEWETT, A.B., Ph.D., Professor of the German Language and Literature.

HORATIO STEVENS WHITE, A.B., Professor of the German Language and Literature, and Dean of the University Faculty.

JOHN HENRY COMSTOCK, B.S., Professor of Entomology and General Invertebrate Zoology.

SAMUEL GARDNER WILLIAMS, A.B., Ph.D., Professor of the Science and Art of Teaching.

THE REV. MOSES COIT TYLER, A.M., L.H.D., Professor of American History.

BENJAMIN IDE WHEELER, A.B., Ph.D., Professor of Greek and Comparative Philology.

EDWARD LEAMINGTON NICHOLS, B.S., Ph.D., Professor of Physics.

EDWARD HITCHCOCK, JR., A.M., M.D., Professor of Physical Culture and Hygiene, and Director of the Gymnasium.

JAMES MORGAN HART, A.M., J.U.D., Professor of Rhetoric and English Philology.

THE REV. CHARLES MELLEN TYLER, A.M., D.D., Sage Professor of the History and Philosophy of Religion and of Christian Ethics.

JEREMIAH WHIPPLE JENKS, A.M., Ph.D., Professor of Political Economy and Civil and Social Institutions.

- LUCIEN AUGUSTUS WAIT, A.B., Professor of Mathematics.
GEORGE LINCOLN BURR, A.B., Professor of Ancient and Mediæval History.
CHARLES EDWIN BENNETT, A.B., Professor of Latin.
HENRY MORSE STEPHENS, M.A., Professor of Modern European History.
SIMON HENRY GAGE, B.S., Professor of Microscopical Technology, Histology, and Embryology.
GEORGE WILLIAM JONES, A.M., Professor of Mathematics.
JAMES EDWIN CREIGHTON, A.B., Ph.D., Sage Professor of Logic and Metaphysics.
EDWARD BRADFORD TITCHENER, A.M., Ph.D., Sage Professor of Psychology.
GEORGE FRANCIS ATKINSON, Ph.B., Professor of Botany with special reference to Comparative Morphology and Mycology.
JAMES SETH, M.A., Sage Professor of Moral Philosophy.
RALPH STOCKMAN TARR, B.S., Professor of Dynamic Geology and Physical Geography.
WALTER SCRIBNER SCHUYLER, Captain, U. S. A., Professor of Military Science and Tactics.
THE REV. NATHANIEL SCHMIDT, A.M., Professor of Semitic Languages and Literatures.
GEORGE PRENTICE BRISTOL, A.M., Associate Professor of Greek.
† ALFRED EMERSON, Ph.D., Associate Professor of Classical Archæology and Curator of the Museum of Casts.
LOUIS MUNROE DENNIS, Ph.B., B.S., Associate Professor of Inorganic and Analytical Chemistry.
WALTER FRANCIS WILLCOX, LL.B., Ph.D., Associate Professor of Social Science and Statistics.
GEORGE SYLVANUS MOLER, A.B., B.M.E., Assistant Professor of Physics.
HERBERT CHARLES ELMER, A.B., Ph.D., Assistant Professor of Latin.
JAMES McMAHON, A.M., Assistant Professor of Mathematics.
† WILLIAM RIDGELY ORNDORFF, A.B., Ph.D., Assistant Professor of Organic Chemistry.
WILLIAM ALEXANDER HAMMOND, A.M., Ph.D., Assistant Professor of Ancient and Mediæval Philosophy.
ERNEST GEORGE MERRITT, M.E., Assistant Professor of Physics.
JOSEPH ELLIS TREVOR, Ph.D., Assistant Professor of General Chemistry, and of Physical Chemistry.

WILLARD WINFIELD ROWLEE, B.L., D.Sc., Assistant Professor of Botany with special reference to Comparative Histology and Systematic Botany.

CHARLES HENRY HULL, Ph.D., Assistant Professor of Political Economy and Secretary of the University Faculty.

DUNCAN CAMPBELL LEE, A.M., Assistant Professor of Elocution and Oratory.

FREDERICK BEDELL, Ph.D., Assistant Professor of Physics.

GILBERT DENNISON HARRIS, Ph.B., Assistant Professor of Palæontology and Stratigraphic Geology.

ADAM CAPEN GILL, Ph.D., Assistant Professor of Mineralogy and Petrography.

JOHN HENRY TANNER, B.S., Assistant Professor of Mathematics, and Secretary of the Faculty of Arts and Sciences.

WILDER DWIGHT BANCROFT, A.B., Ph.D., Assistant Professor of Physical Chemistry.

GRANT SHERMAN HOPKINS, D.Sc., Assistant Professor of Veterinary Anatomy and Anatomical Methods.

FREDERICK CLARKE PRESCOTT, A.B., Assistant Professor of Rhetoric.

HOMER JAMES HOTCHKISS, A.M., M.M.E., Instructor in Physics.

WILLIAM STRUNK, JR., A.B., Ph.D., Instructor in English.

FREDERICK JOHN ROGERS, M.S., Instructor in Physics.

ERNEST ALBEE, A.B., Ph.D., Instructor in Philosophy.

FRED DOUGLASS SMITH, B.S., Instructor in Analytical Chemistry.

HENRY HAYDEN LANNIGAN, Instructor in Gymnastics.

CONSTANT PIERRE VERGAUVEN, B.L., D.Sc., Instructor in French.

FREDERIC LAWRENCE KORTRIGHT, D.Sc., Instructor in Chemistry.

HOWARD PARKER JONES, A.M., Ph.D., Instructor in German.

CHARLES EDWARD TIMMERMAN, B.S., M.M.E., Instructor in Physics.

JOHN SANFORD SHEARER, B.S., Instructor in Physics.

DANIEL ALEXANDER MURRAY, Ph.D., Instructor in Mathematics.

LEWIS LEAMING FORMAN, Ph.D., Instructor in Greek.

JOHN IRWIN HUTCHINSON, A.B., Instructor in Mathematics.

EDWIN DUBOIS SHURTER, Ph.B., Instructor in Elocution and Oratory.

CHARLES JESSE BULLOCK, Ph.D., Instructor in Political Economy.

FRANK EMIL LODEMAN, A.M., Ph.D., Instructor in French.

VIRGIL SNYDER, D.Sc., Instructor in Mathematics.

BERT BRENETTE STROUD, D.Sc., Instructor in Physiology,
Vertebrate Zoology, and Neurology.

ELIAS JUDAH DURAND, A.B., D.Sc., Instructor in Botany.

EVERETT WARD OLMSTED, Ph.B., Ph.D., Instructor in French.

ALFRED AUSTIN MOORE, A.B., Instructor in French.

CLAYTON HALSEY SHARP, A.B., Ph.D., Instructor in Physics.

GEORGE BURRIDGE VILES, A.B., A.M., Instructor in German.

BLIN SILL CUSHMAN, B.S., Instructor in Chemistry.

DARWIN ABBOT MORTON, B.S., Instructor in Organic Chemistry.

ELLEN BRAINARD CANFIELD, Instructor in Physical Culture at
Sage College in charge of the Gymnasium for Women.

THEODORE WHITTLESEY, Ph.D., Instructor in Chemistry.

CHARLES LOVE DURHAM, A.M., Instructor in Latin.

CLARK SUTHERLAND NORTHUP, A.B., Instructor in English.

EUGENE PLUMB ANDREWS, A.B., Curator of the Museum of
Casts.

FRED CLARKSON FOWLER, Mechanician in the Department of
Physics.

ROBERT SHORE, Assistant to the Professor of Botany, and Head
Gardener.

ALEXANDER DYER MacGILLIVRAY, Assistant in Entomology.

GEORGE PLATT KNOX, B.S., Assistant in Chemistry.

KARL MCKAY WIEGAND, B.S., Assistant in Botany.

JAY ALLAN BONSTEEL, B.S., Assistant in Geology.

CHARLES ROBERT GASTON, Ph.B., Assistant in English.

JOSHUA ROGER LEWIS, C.E., LL.B., Assistant in Elocution.

ALFRED ERNEST TAYLOR, A.M., Ph.D., Assistant in Chemistry.

JOHN FERGUSON SNELL, A.B., Assistant in Chemistry.

OSCAR MILTON STEWART, Ph.B., Ph.D., Assistant in Physics.

CENTENNIAL HARRY BENEDICT, B.S., Assistant in Chemistry.

GEORGE ARMSTRONG SMITH, B.S. in Agr., Assistant in
Chemistry.

CHARLES HENRY RAMMELKAMP, Ph.B., Assistant in American
History.

ISAAC MADISON BENTLEY, B.S., Assistant in Psychology.

GEORGE L HOXIE, M.E., M.M.E., Assistant in Physics.

LOUISE SHEFFIELD BROWNELL, A.B., Ph.D., Warden of Sage
College and Lecturer on English Literature.

SPECIAL LECTURERS.

- ANDREW SETH, *Edinburgh, Scotland.*
Optimism and Pessimism.
- WILHELM DÖRPFELD, *Athens, Greece.*
Troy and the Results of the most Recent Excavations on
that Site.
The Greek Theatre, and recent Discoveries concerning its
Construction and Use.
The Doric Style, and the History of its Development.
- JOHANNES CONRAD, *Halle, Germany.*
Recent Social Legislation in Germany.
- PHILIP PAYNE, *Hamilton, N. Y.*
Hawthorne and His Art.
- JOSEPH MULLIN, *Watertown, N. Y.*
Corporations.
- HENRY B. BROWN, *Washington, D. C.*
Chief Justice Marshall.
- LYMAN ABBOTT, *Brooklyn, N. Y.*
The Ministry as a Profession.
- DANIEL G. BRINTON, *Philadelphia, Pa.*
The Study and the Sources of Primitive Religions.
Primitive Religious Expression ; in the Word.
Primitive Religious Expression ; in the Object.
The Ritual and Development of Primitive Religions.
- DAVID STARR JORDAN, *Stanford University, Cal.*
The Alaska Fur Seal.
- GROVE K. GILBERT, *Washington, D. C.*
History of Niagara Falls and Gorge.
- ANDREW D. WHITE, *Ithaca, N. Y.*
The Problem of High Crime in the United States.
- CHARLES P. STEINMETZ, *Schnectady.*
Rotary Converter.

REQUIREMENTS FOR ADMISSION AND GRADUATION.

The following subjects are required for admission : English, Geography, Physiology and Hygiene, History [student must offer two of the four following divisions in History : (a) American, (b) English, (c) Grecian, (d) Roman,] Plane Geometry, Algebra, and either *A*, *B* or *C*, as follows :

A. Greek and Latin.

B. Latin and either Advanced French or Advanced German.

C. Advanced French, Advanced German, and Advanced Mathematics.

[For details as to subjects and methods of admission see pages 29-61.

For admission to the freshman class, communications should be addressed to the Registrar. See pages 29-40.

For admission to advanced standing from other colleges and universities, communications should be addressed to the Registrar. See pages 41 and 42.

For admission to graduate work and candidacy for advanced degrees, communications should be addressed to the Dean of the University Faculty. See pages 56-61.]

DEGREES.

The degree of Bachelor of Letters will not be conferred after June, 1899.

The degrees of Bachelor of Science and Bachelor of Philosophy will not be conferred after June, 1900.

In and after June, 1901, the single degree of Bachelor of Arts will be conferred, irrespective of the studies elected.

Students in the Course of Philosophy who, in the last two years elect continuously not less than nine hours of studies in history and political science, will, upon application on or before June 1, receive the degree of Bachelor of Philosophy in History and Political Science.

Students in the Course in Science who, in their sophomore year elect invertebrate and vertebrate zoology, and at least two terms of freehand drawing, and who, in the last two years elect continuously not less than nine hours in natural history, and pass an examination before the beginning of the senior year in Latin equivalent to four books of Cæsar's Commentaries, and in Greek sufficient to show abil-

ity to recognize and analyze scientific technical terms, will, upon application on or before June 1, receive the degree of Bachelor of Science in Natural History.

GENERAL CONDITIONS FOR GRADUATION.

For graduation, 180 hours of instruction, besides military drill and physical training during the freshman and sophomore years, are to be completed. In the case of students relieved from military drill and physical training, an equivalent in hours is added to the 180 hours. A thesis is required of every candidate for a degree. Otherwise, the work of seniors and juniors who have completed the required studies of the freshman and sophomore years, and of sophomores who have completed the required studies of the freshman year is elective for the remainder of the course. For those entering the freshman class the work of the entire course is elective, except as regards military drill, gymnasium, and the thesis, and is subject only to the limitations prescribed by each department of instruction. Students are, however advised to lay out definite and systematic lines of study.

LIST OF COURSES OPEN TO FRESHMEN.

The following list comprises the courses of instruction open to election by freshmen without special permission. Freshmen may not register in any other course until the written consent of the professor in charge of the subject is presented to the Registrar.

Semitic Languages and Literature.—Courses 1, 2, 7, and 8.

Greek.—Courses 1, 1a, and 13.

Latin.—Courses 1 and 13.

Germanic Languages.—Course 1. Course 2 if elementary German, (the equivalent of Course 1) has been passed. Courses 3, 4, 5, and 8, if advanced German (the equivalent of Courses 1 and 2) has been passed.

Romance Languages.—Course 1. Course 2 if elementary French (the equivalent of Course 1) has been passed. Courses 3, 4, 6, 7, 10, 16, and 17 if advanced French (the equivalent of Courses 1 and 2) has been passed.

English.—Courses 1, 3, and 10. Course 11 if advanced German (the equivalent of Courses 1 and 2 in German) has been passed.

English Literature.—Course 33.

History.—Courses 4a and 21.

Music.—Course 1.

Bibliography.—Course 1.

Mathematics.—Courses 6, 7, and 8.

Physics.—Courses 2a and 2b if Mathematics, Course 6, be passed.

Chemistry.—Courses 1 and 16.

Botany.—Courses 1, 2, and 4.

Entomology and General Invertebrate Zoology.—Courses 1, 2, 3, and 4.

Physiology and Vertebrate Zoology.—Courses 1, 2, 3, 4, 5, and 6.

Anatomical Methods and Human Anatomy.—Courses 1, 2, and 3.

Microscopy, Histology, and Embryology.—Courses 1, 2, and 3.

General Geology.—Course 4. (See under Dynamic Geology and Physical Geography.)

Military Science.—Course 4.

Hygiene and Physical Culture.—Course 2.

Freehand Drawing.—Course 1. (See under Sibley College.)

Juniors and seniors in good standing in the Academic Department are allowed, with the permission of the Faculty of Arts and Sciences, and with consent of the Faculty concerned in each case, to elect studies in other Colleges which shall count towards graduation in the Academic Department, but the sum total of hours elected cannot exceed the number required for one year's work in such Colleges, nor exceed nine hours per week in any term.

DEPARTMENTS OF INSTRUCTION.

SEMITIC LANGUAGES AND LITERATURES.

The work in this department falls under three heads.

The languages. An elementary course in Hebrew will be given each year. The advanced work in this language is so arranged as to cover in three years the leading writers of the Old Testament and some parts of the Mishnaic and Talmudic literature. General students with linguistic interests, and those preparing to teach, are advised to begin their study of the Semitic languages with the Arabic, which will also be offered each year. Aramaic and Egyptian will alternate with Assyrian and Ethiopic. In the Semitic Seminary, one term each year will be given to epigraphical studies.

The literatures. A course of lectures on the most important literary productions of the Semites will be given annually. *For this course a knowledge of Semitic languages is not required.* The lectures will be devoted in part to a discussion of questions of authorship, date, literary composition and historical value, and in part to a translation and elucidation of the texts themselves. Much attention will be bestowed on the Old Testament. Thus an opportunity will be afforded to students who are not familiar with the Hebrew to become acquainted with the results of scientific Bible study. The Hebrew apocrypha and pseudepigrapha, the Mishnah and the Talmud, the Kuran and the Arabic poets, the Babylonian Gilgamesh epic and the Book of the Dead will be discussed in a similar manner.

The history. In a series of lectures covering three years, an outline will be presented of the political and social history of Babylonia, Assyria, Persia, India, Armenia, Syria, Arabia, Ethiopia, Egypt and the Spanish Caliphate.

Bracketed courses will not be given in 1897-98, but may be expected in 1898-99.

Office of the department, White 3 B. Consultation hour, M., 2.

1. Hebrew Grammar (Harper, Kautzsch). Exercises in composition. Reading of Genesis and 1 Samuel. M., W., F., 3, *White 1.* Professor SCHMIDT.

2. Arabic Grammar (Caspari-Müller). Earlier Suras in the Kuran and parts of the Muallakat. T., Th., 3, *White 3 B.* Professor SCHMIDT.

3. Assyrian Grammar (Lyon, Delitzsch). Selections from Meissner's Chrestomatie and the Amarna tablets. T., Th., 4, *White 3 B.* Professor SCHMIDT.

4. Ethiopic Grammar (Praetorius, Dillmann). Parts of Enoch and Ascensio Isaiae, M., W., 5, *White 1.* Professor SCHMIDT.

5. Semitic Seminary. Interpretation of Isaiah, fall and winter terms; Phoenician inscriptions in the Corpus Inscriptionum Semiticarum, spring term. F., 9-11, *Barnes Hall.* Professor SCHMIDT.

6. Comparative Semitic Philology. Moods and tenses, fall term; origin of the cuneiform signs and the alphabet, winter term; Gen. 1-iv in the Hebrew, Aramaic (Targum, Samaritan and Edessene), Arabic and Ethiopic, spring term. F., 11, *Barnes Hall.* Professor SCHMIDT.

7. Semitic Literature. Job, fall term; Ecclesiastes, winter term; the Kuran, spring term. Lectures. The knowledge of Semitic languages is not required. M., W., 4, *White 1.* Professor SCHMIDT.

8. Oriental History. Syria, fall term; Babylonia and Assyria, winter term; the Bagdad Caliphate, spring term. Lectures. T., Th., 2, *White 3 B.* Professor SCHMIDT.

[9. Geography and Antiquities of the Semites. One hour. Professor SCHMIDT.]

[10. Aramaic. Grammar (Marti, Duval, Petermann). Selections from Ezra, Daniel, the Targums, the Edessene Versions and the Samaritan Pentateuch. Two hours. Professor SCHMIDT.]

[11. Egyptian. Grammar (Erman). Selections from historical texts and the Book of the Dead. Two hours. Professor SCHMIDT.]

[12. Semitic Seminary. Interpretation of Job, fall and winter terms; selections from the Mishnah, spring term. Two hours. Professor SCHMIDT.]

[13. Semitic Literature. The Hexateuch, fall term; Canticles, winter term; the Book of Enoch, spring term. Two hours. Professor SCHMIDT.]

[14. Oriental History. Egypt, fall term; India, winter term; the Spanish Caliphate, spring term. Two hours. Professor SCHMIDT.]

CLASSICAL ARCHÆOLOGY AND HISTORY OF ART.

The courses in this department are entirely elective, but generally presuppose such an acquaintance with Greek and Latin language and literature, and ancient history, as students who have completed the earlier courses in classics possess. The course in the History of Ancient Architecture is, however, planned primarily for technical students who may perhaps elect the course in Greek and Roman Art with equal advantage. The latter is the best introduction to the studies of the department, and also connects directly with the courses in Private Life, or Antiquities of the Ancients, which are offered in the Latin and Greek departments. The newly organized University Museum of Classical Archæology splendidly equips the department with the best possible means of learning to recognize the beauties, spirit, and meaning of ancient art. Other materials enable the instructor to accompany his systematic courses with the needed illustration by lantern slides, charts, etc. All members of the University are encouraged to make the utmost use of these facilities of the department for serious study, and its assistance is tendered both in the availability of the Curator of the Museum for personal consultation at regular hours, and in the talks and lectures to be given at stated times in the museum or elsewhere.

The Seminary work in Archæology is intended primarily for advanced classical students, who contemplate adding some thorough

training in this subject to their requirements in the linguistic and historical branches of classical scholarship. The object of the course as a whole is to place the student in a position to perform independent investigation along lines pertaining to classical archæology and art.

THE MUSEUM OF CLASSICAL ARCHÆOLOGY occupying the first floor of McGraw Hall, is composed chiefly of casts representing the history of Greek and Roman sculptural art, but is also supplied with various plans, models, reconstructions, fac-similes of coins, etc. The nucleus of the collection was purchased with a fund of seven thousand dollars donated for the purpose by the Hon. Henry W. Sage. The instruction in archæology and the history of art is given in part in the museum itself.

Bracketed courses are not given in 1897-98.

Office of the department in the tower-room of the Cast Museum : consultation hours, W., F., 12.

[1. Classical Archæology. Fall term : history, scope and methods of archæological science, especially as dealing with the remains of ancient civilization (ruins and antiques) in the Mediterranean countries ; the art of the ancients in tissues, pottery, metal work, including coinage, wood and ivory carving, stone and gem carving, and color, with particular reference to classical architecture, sculpture, and painting. An illustrated course. Winter term : the topography and archæology of Greece, more especially of Athens and Olympia. Spring term : topography and archæology of Italy, especially of Rome and Pompeii.]

2. History of Architecture. Ancient. M., W., F., 9. Fall term. For mediæval, renaissance, and modern, see under Architecture. Professor TROWBRIDGE.

[3. History of Sculpture from antiquity to the present day. An illustrated course. Fall term : Antiquity and early Christian period. Winter term : mediæval period and Italian Renaissance. Spring term : modern sculpture.]

4. Studies in the Museum of Casts. Lectures upon the monuments of Greek and Roman art represented in the University collection. F., 12, Mr. ANDREWS.

5. Pausanias. A reading course in the sources of the knowledge of Greek topography. Supplemented by illustrated lectures and by readings from Thucydides, Herodotus and Xenophon. Each member of the class will be expected to own a Teubner text of Pausanias, Thucydides and Herodotus. T., Th., 9, *White 6*. Mr. ANDREWS.

6. Archæological Seminary. The architectural monuments of the

Acropolis of Athens. The history of each building so far as it can be recovered from the works of classical authors, from inscriptions, from mediæval chronicles and correspondence and from the existing remains. The problems which the ruins now present. M., 3 to 5. Mr. ANDREWS.

COMPARATIVE PHILOLOGY.

The work in comparative philology is planned with reference to the needs : first, of the general student with linguistic interests ; second, of those proposing to be teachers of language, and more especially, of the classical languages ; third, of those who propose to devote themselves to the special scientific study of the Indo-European languages.

To the first mentioned class of students, course 1 is especially adapted. For those who propose to be teachers of other than the classical languages, the course in comparative grammar is recommended in addition to course 1. The courses on Greek and Latin grammar, and the seminary work on the Greek dialects, are of the first importance for prospective teachers of the classics, and for such work a preliminary study of the elements of Sanscrit is considered eminently desirable though not absolutely essential. For such as may wish to devote themselves exclusively to the study of comparative philology, there will be offered, as occasion may demand, in addition to the courses already announced, a more advanced course in Sanscrit, and special courses in the comparative grammar of other branches of the Indo-European family of languages. The course in Gothic grammar is intended both for students of comparative philology and for specialists in Germanic, including English, philology. Attention is called to the courses offered by the English department in Gothic, in English philology, and in the history of the English language ; also to the philological courses offered by the departments of Germanic languages and Romance languages.

Bracketed courses are not given in 1897-98.

1. General introduction to the Science of Language. The essential principles of the life and growth of language ; outlines of the science of phonetics ; history of the science of comparative philology ; historical and ethnological results of the science ; classification of languages ; salient characteristics of the various branches of the Indo-European family of languages ; methods of investigation. Fall term. W., F., II, *White 6*. Professor WHEELER.

2. Gothic Grammar. Lectures on the relation of the Teutonic languages to the Indo-European parent-speech. Winter term. W., F.,

11, *White 6*. Professor WHEELER. See also English course 7a, which should precede this, if possible.

3. Greek Dialects. Lectures on the characteristics of the dialects, their relation to each other, and to the formation of the literary idioms. Spring term. W., F., 11, *White 6*. Professor WHEELER.

[4. Comparative Grammar of the Greek and Latin Languages. Historical treatment of the sounds and inflections of the Greek and Latin languages in their relation to the other Indo-European languages. W., F., 11, *White 6*. Professor WHEELER].

5. Sanskrit. The first twenty-five lessons of Perry's Sanskrit Primer; the essentials of the grammar, given in the form of lectures; reading of selections from Lanman's Reader. T., Th., 9, *White 3*. Associate Professor BRISTOL.

6. Advanced Sanskrit. Reading of selections from the Rig-Veda. Grammatical discussions. Lectures upon the private and religious antiquities of the ancient Hindoos. S., 9, *White 6*. Professor WHEELER.

7. Philological Seminary. Preparation and discussion of papers by members of the seminary. Critical study of selected texts. Open to graduates. W., 3-5, and an additional hour at the pleasure of the instructor. Professor WHEELER. See under Greek, course 19 for further description.

8. Comparative Semitic Philology. Moods and tenses, fall term; origin of the cuneiform signs and the alphabet, winter term. Gen. i-iv in the Hebrew, Aramaic (Targum, Samaritan and Edessene), Arabic or Ethiopic, spring term. F., 11. *Barnes Hall*. Professor SCHMIDT.

For courses in Romance, in Germanic, and in English Philology, see under Romance Languages, Germanic Languages, and English respectively.

GREEK.

The courses of study in the department of Greek have been arranged with distinct reference to the fact that the Course in Arts does not require the study of Greek after the sophomore year, and furthermore with reference to the principle, that the choice of this course does not by any means imply an intention to specialize in Greek.

The work of the freshman year is directed toward cultivating the ability of reading easily and at sight. Authors of the simplest style have therefore been selected—Lysias and Plato as representatives of the purest Attic type, and the Odyssey of Homer, of the Epic. The first term of the year will include, in connection with the reading of

Lysias, a thorough review-drill in the fundamentals of accidence and syntax, and exercises in Greek composition will be required throughout the year.

The required work of the sophomore year aims at giving the student some acquaintance with the scope and meaning of Greek literature and with the characteristics of Greek thought. It couples with the study of representative masterpieces of Athenian literature, a course of text-book study, lectures, and illustrative readings briefly reviewing in outline the history of the Greek literature.

The elective work of the department falls under three distinct heads :

1. The literature. Ten reading courses accompanied by lectures are offered, seven of which are given each year ; viz., a supplementary sophomore course, a junior course, a course in the orators, a course in the elegiac and lyric poets, a course in the tragedians, a course in Aristophanes, a course in Plato, a course in Aristotle, a course in New Testament Greek, a course in Modern Greek. Besides these the study of some one Greek author is taken up in alternate years in the Seminary.

2. The antiquities. Course 9 treats of the entire equipment and environment of ancient Greek life, its usage and occupations, its ideas and institutions. The department of Classical Archæology offers also courses in Greek art and archæology, mythology, religion and topography, and the department of Architecture a course in ancient architecture.

3. The language. A course in Advanced Prose Composition will give maturer students an opportunity for practicing the writing of Greek under the direct personal supervision of a teacher, and for instruction in special questions of syntax and style. All students who intend to become specialists in Greek are advised to take the course if possible, both in the junior and senior years, *and no student who has not passed satisfactorily in at least the work of Section A of this course (12) will be recommended by the department as a teacher of Greek.* Lectures on Greek grammar from a historical point of view are given in alternate years.

The exercises of the philological seminary are especially adapted to the needs of prospective teachers of the classics, and introduce the student to the original sources of information concerning the language and its history, and accustom him to methods of independent investigation. The seminary room in the new library building has been equipped with a reference library of over two thousand volumes and will be used as a regular study-room and laboratory by the more advanced students.

A course in Elementary Greek has been added for the advantage of non-Greek students, who for any reason may have found it, though late in their college course, desirable to acquire at least a rudimentary knowledge of the language, and are willing to incur the labor incident to doing two years' work in one. The acknowledged purpose of the course is to attain within one year of extraordinary effort a reading knowledge of Attic prose and all other objects are made secondary to this. The course cannot be used to make up conditions in the entrance examinations, it cannot be counted for graduation in the course in Arts, and it cannot, without much additional study, serve as a preparation for the entrance examinations.

Bracketed courses will not be given in 1897-98.

Office of the department, White 3a. Consultation hours as follows : Professor Wheeler, W., F., 10 ; Professor Bristol, T., Th., S., 11 ; Dr. Forman, T., Th., S., 11.

A. Elementary Greek. The essentials of the grammar. Simple exercises in composition. The reading of selections from the *Anabasis* of Xenophon, and from Plato. M., W., F., 8, *White 13*. Dr. FORMAN.

This course is designed for, and may be elected by all students who wish to acquire by extraordinary effort in one year, the ability to read Attic prose.

1. Freshman Course. Reading of selected orations of Lysias, accompanied by a careful review of the Attic inflections and syntax. Six books of Homer's *Odyssey*. Selections from Plato. Greek composition during fall and spring terms. T., Th., S., 10, *White 3* and 13. Associate Professor BRISTOL and Dr. FORMAN.

Open to all students who have presented Greek for admission to the University. The class will be divided into sections on the basis of scholarship at the beginning of the winter and of the spring term. See also 1a.

1a. Supplementary Course. *Hellenica* of Xenophon. Selections from Books V-VII. Herodotus, Books VI and VII. Selections from Lucian. W., F., 10. Dr. FORMAN. This course is open to students in course 1 who wish to take as many as five hours a week in Greek, and to students who have completed course 1.

2. Sophomore Course. The *Philippics* of Demosthenes. Sophocles' *Antigone*. The *Acharnians* of Aristophanes. Extra reading required. The *Olynthiacs* of Demosthenes, or Lucian's *Vera Historia*, the *Iphigenia in Tauris* of Euripides, and the *Plutus* of Aristophanes. Greek composition for two terms. Outline lectures upon the history of

Greek literature. M., W., F., 9, *White 6*. Professor WHEELER and Dr. FORMAN. Open to students who have passed in course 1.

3. Thucydides, portions of Book VI and VII. Demosthenes on the Crown. Aeschylus, Prometheus Bound. Euripides, Alcestis. M., W., F., 10, *White 3*. Associate Professor BRISTOL. This course is open to students who have passed in courses 1 and 2.

[5. Oratory. Selected orations of Lysias, and Demosthenes. Lectures on the development of Attic oratory, and on Athenian legal antiquities. Open only to those who have passed in courses 1 and 2. W., F., 9, *White 3*. Associate Professor BRISTOL].

[6. Elegiac and Lyric Poetry. Fall term, the elegiac and iambic poets. Winter term, the melic poets in Hiller's *Anthologia Lyrica*. Spring term, Theocritus. W., F., 9, *White 3*. Associate Professor BRISTOL.]

7. The Tragedy. Aeschylus, Agamemnon. Sophocles, Oedipus Tyrannus. Euripides, Hippolytus. M., W., F., 9, *White 3*. Associate Professor BRISTOL.

8. Aristophanes. The Knights, Clouds, Wasps, Peace, Birds, Frogs. Lectures on the development of Greek comedy and its scenic representation. T., Th., 8, *White 3*. Dr. FORMAN.

[9. Greek Life. Fall term, the land and the people. Winter term, home life and private antiquities. Spring term, public life and social institutions. A study of the private life of the Greeks, with illustrations (by lantern views, photographs, etc.) from ancient monuments and remains. T., Th., 10, *White 6* Professor WHEELER].

10. Greek Literature as embodying Greek ideas of life. Lectures on the development of social and religious ideas as traceable in the literature. Readings from representative authors in English translations. Fall and winter terms. T. Th., 10, *White 6*. Professor WHEELER.

11. Political and Legal Antiquities of the Greeks. Lectures. Theories of the state. Political mechanism. Courts and legal procedure. Spring term. T., Th., 10, *White 6*. Professor WHEELER.

12. The Dialogues of Plato; the Republic and Theætetus in the original text. M., W., F., 10, Assistant Professor HAMMOND.

13. New Testament Greek. Fall term. Gospel of Mark, and chapters 16-20 of the Acts of the Apostles. Introduction to New Testament philology. Interpretation of the Greek text. Winter term. The first and second Epistle to the Corinthians. Interpretation of the Greek text. Study of New Testament words and syntax. Spring term. Selections from the Apostolic Fathers and the Apologists. Interpretation of the Greek text. Historical and biographical papers

by the instructor and members of the class. *Barnes Hall, Library Room.* W., F., 8. Dr. A. C. WHITE.

14. Pausanias. A reading course in the sources of the knowledge of Greek topography. Supplemented by illustrated lectures and by readings from Thucydides, Herodotus, and Xenophon. Each member of the class will be expected to own a Teubner text of Pausanias, Thucydides and Herodotus. T., Th., 9, *White 6.* Mr. ANDREWS.

15. Modern Greek. The literary language as found in Athenian newspapers and the spoken idiom as presented in Gardner's *Practical Method of Modern Greek*. Fall term. W., F., 10, *White 6.* Mr. ANDREWS.

16. Advanced Greek Composition. Weekly practice in the writing of more difficult Greek, in two sections. A. For undergraduates. B. For graduates, and for undergraduates who have passed in the work of A. S., 8, 9. Hours to be fixed by consultation. *White, 3.* Dr. FORMAN.

17. Teacher's course in Homer. The work of the course will center in the *Iliad* and will consist of three parts :

(a) The reading and interpretation of selected portions of the first three books of the *Iliad*.

(b) The study of the language of the poem in its chief characteristics, and of its relation to the Attic dialect : the epic hexameter, its origin and development ; the principles of interpretation : some features of life in the "Homeric period : " the value of archæology for the understanding of the poem : aims and methods in translating.

(c) Discussion on the teaching of Homer : the end to be kept in view : practical difficulties in the work. The most valuable books and other auxiliary helps for the teacher of Greek. S., 9, *White 3.* Associate Professor BRISTOL.

18. Greek Dialects. Summary of their peculiarities. Reading of selected inscriptions. Spring term. W., F., 11, *White 6.* Professor WHEELER.

19. Philological Seminary. Interpretation of some of the more important Attic inscriptions. Preparation and discussion of papers by members of the seminary. Critical study of selected texts. W., 3-5, and an additional hour at the pleasure of the instructor. Professor WHEELER. Open to graduates.

For Greek Grammar, treated from the historical point of view, see under Comparative Philology, course 2.

For courses in Greek art, Greek topography, etc., see under Classical Archæology. For Greek history, see under History and Political Science. For Greek philosophy, see under Philosophy.

LATIN.

The aim of the work in Latin covers several distinct heads :

1. To teach students of fair ability and of industry to read Latin understandingly and rapidly, without translating.
2. To give to students who acquire this power the opportunity of making a considerable acquaintance with the literature of the language, through the reading of large quantities of the important writers ; with the history of the development of the literature, through a brief course given in the sophomore year, and a more detailed study in connection with the authors read in later years, and in the last years through the collateral reading of history in connection with the Roman writers.
3. To afford a more thorough and sympathetic knowledge of Roman private life than the courses in literature alone would give, through systematic lectures, illustrated abundantly, mainly by lantern views, and photographs, from the remains of Roman civilization preserved in Pompeii, Herculaneum, Rome, and elsewhere.
4. To offer to students whose interest extends to the scientific aspect of the language (and especially to those who are preparing to be teachers) advanced courses, partly by lectures, and partly by work in the seminary, in the study of the origin and development of the syntactical uses of the language, and of the beginnings of their decay. The new seminary room with its special library affords the best opportunities for advanced work.

Provision for the study of Latin grammar on the side of forms and inflections is made by the Department of Comparative Philology. Provision for the study of Roman topography and Roman art is made by the department of Classical Archæology.

Bracketed courses are not given in 1897-98.

1. Livy. The De Senectute of Cicero. Selections from the Odes of Horace. Latin writing. In three sections. M., W., F., 9, *Morrill*
 3. Professor BENNETT and Mr. DURHAM. M., W., F., 10, *Morrill*
 3. Assistant Professor ELMER. M., W., F., 11, *Morrill* 3. Mr. DURHAM.
 2. The Phormio of Terence. Horace : Selections from the Epodes, Satires, and Epistles. Tacitus' Germania and Dialogus de Oratoribus. Collateral reading upon the history of Rome during the period covered by the life of Horace. Latin writing. Wilkins' Primer of Roman Literature. In two sections. T., Th., S., 9; *Morrill* 6, T., Th., S., 10, *Morrill* 21. Assistant Professor ELMER.
- Open to students who have completed course 1.

[3. Selections from Cicero's Letters. Cicero, de Oratore. W., F., 11, *Morrill 21*. Assistant Professor ELMER.

This course is open to students who have completed course 1, and is especially recommended to those who may be planning to elect Latin later. It alternates with course 4.]

4. Selections from Cicero's De Officiis and the Tusculan Disputations. W., F., 11, *Morrill 21*. Assistant Professor ELMER.

This course is open to students who have completed course 1, and is especially recommended to those who may be planning to elect Latin later. It alternates with course 3.

[5. Selections from the Republican Literature; Plautus, Lucretius, Catullus. Lectures on the History of Roman Literature. T., Th., S., 9, *Morrill 3*. Professor BENNETT.]

Open to students who have completed courses 1 and 2.

6. The Literature and History of the Early Empire: Pliny the Younger, Juvenal, Martial, and Tacitus. History of Roman Literature; Capes' Early Empire. T., Th., S., 9, *Morrill 3*. Professor BENNETT.

Open to students who have completed courses 1 and 2.

Courses 5 and 6 are given in alternate years.

7. Advanced course in Latin writing. Open to students who have completed course 2, and by special permission to others. S., 11, *Morrill 3*. Assistant Professor ELMER.

[8. Teachers' Training Course:

(a) Study of the evidences for the pronunciation of Latin. Hidden quantities. Peculiarities of orthography. Theoretical consideration of Latin syntax.

(b) Practical exercises in the study of the Grammar, Caesar, Nepos, Cicero, and Vergil. W., 12.

Of this course (a) may be taken without (b), but (b) may not be taken without (a). The general aim of the course is to prepare students who intend to teach to enter upon their first year of work with confidence. Professor BENNETT.

Course 8 is open only to students who have had Courses 1 and 2, and who either have taken or are taking course 3, 4, 5, or 6. Special students in Latin are also admitted.]

9. Roman Antiquities. Fall and Winter Terms: A systematic consideration of the constitution of the Roman family, status of women, marriage, children, education, slavery, the Roman house and its furniture, food, dress, baths, games and amusements, books, trade, travel, religion, death, burial, etc. Lectures, copiously illustrated by lantern views, photographs, and material in the Museum of Casts. Spring Term: The Political and Legal Antiquities of the Romans. Lectures. W., F., 12, *Morrill 3*. Professor BENNETT.

Open to students of the sophomore, junior, and senior years. See also under History and Political Science, course 3.

Course 9 alternates with course 8.

10. Latin Seminary. The work of the seminary for 1897-98 will consist of a textual and exegetical study of the *Epidicus* of Plautus, combined with rapid reading of the remaining plays. Professor BENNETT.

The object of the seminary is to familiarize its members with the methods and habits of independent investigation. The work therefore, so far as possible, is thrown into the hands of the students themselves. The seminary is open to graduates. Students intending to take these courses should confer with the instructor before Commencement, that the necessary books may be ordered from abroad in due season. The critical work will come T., 4-5:30, counting as two hours. The more rapid reading will be Saturday at 10. *Greek and Latin Seminary*. Professor BENNETT.

11. Study of the Italic Dialects (Latin, Oscan, Umbrian) in inscriptions, with special reference to the sounds, inflexions, and word-formation of the Latin language. Discussion of disputed Latin etymologies. Open to graduates. Professor BENNETT. Th., 10. *Morrill* 3.

[12. Historical Latin Syntax. Lectures on the original force and historical development of the cases and on the subjunctive mood, with reference especially to its primitive meaning, and its development in subordinate clauses. Open to graduates. Th., 10, *Morrill* 3. Professor BENNETT.]

13. Sight Translation. Exercises in translating simple Latin at sight. Nepos, Ovid, Aulus Gellius. Open to freshmen. S., 12. *Morrill* 3. Mr. DURHAM.

14. Latin Palæography. An actual study of Mediæval manuscripts and fac-similes in the possession of the University. Winter. W., 4-6. Professor BURR.

For Latin Grammar with reference to the history of sounds and inflections, see under Comparative Philology, Course 9.

For Roman History, see under Ancient History.

GERMANIC LANGUAGES.

The aim of the first two years in German, besides preparing the student for progressive and independent work, is to afford those who have not a full classical training, some grammatical and linguistic discipline, an insight into the relations between German and English, and a certain degree of literary culture.

During the freshman year Joynes-Meissner's Grammar and Brandt's

Reader are used, accompanied by exercises in writing German, and translation at sight, and followed by some special work, containing easy novels or plays.

In the sophomore year standard German classics are translated, and special attention is paid to the study of etymology and syntax, and to reading at sight.

During the junior and senior years occur lectures and recitations, with elective classes, on German history, literature, and mythology; and courses are given varying from year to year, embracing the works of the leading authors. Classes are also formed in composition and conversation, and recent dramatic literature and the writings of living novelists are read. Instruction is further provided in Old and Middle High German and other Germanic dialects.

The seminary system of study for advanced students has been employed in the department for several years with satisfactory results. To different members of such classes different portions of the same general subject are assigned, with references to the proper authorities or sources; or individual members pursue individual courses of reading under the supervision of the professor in charge. Lectures for those intending to be teachers are also given on class-room methods and theories of instruction in the modern languages; and generous provision has been made by the University for the use of lantern slides for illustrative purposes. The seminary room in the general library building is already equipped with a good working library, which is steadily increasing in extent. The gift to the University of the Zarncke library has materially enlarged the resources of the seminary and leaves little to be desired.

Bracketed courses are not given in 1897-98.

Course 1, which cannot be taken to make up an entrance deficiency, is for beginners in German.

Courses 2a and 2b, which cannot be taken to make up an entrance deficiency, are otherwise open to those who have had the equivalent of course 1.

Courses 3-16 are open, under the restrictions hereafter noted, to those only who have had at least the equivalent of courses 1 and 2.

Course 1, and, under certain restrictions, courses 2, 3, 4, 5, 8, are open to Freshmen.

1. German Grammar and Reader. Harris's German Composition, Easy plays and tales. M., W., F., 9, 10; T., Th., S., 11, 12, *Morrill 21*. Dr. JONES. M., W., F., 11; T., Th., S. 12, *Morrill 6*. Mr. VILES.

2a. Freytag's *Soll und Haben*. Schiller's *Maria Stuart*. Lessing's *Minna von Barnhelm*. M., W., F., 9; T., Th., S., 9, *Morrill 13*. Professor HEWETT. Open to those who have had course 1 or its equivalent.

2b. Freytag's *Soll und Haben*. Schiller's *Maria Stuart*. Lessing's *Minna von Barnhelm*. M., W., F., 10; T., Th., S., 10, 11, *Morrill 6*. Mr. VILES. Open to those who have had course 1 or its equivalent.

3a. Elementary German Composition. The work in this course will consist of the translation into German of selected passages adapted from German originals. Hatfield's texts. W., 12, *Morrill 21*. Dr. JONES. Open to those who have had course 1 or courses 1 and 2, or an equivalent.

3b. Advanced German Composition. Those intending to teach German are specially advised to elect this course. F., 11, *Morrill 21*. Dr. JONES. Open, by application, to those who have had courses 1 and 2 or an equivalent.

4. Heine's *Life and Works*. M., W., F., 9, *Morrill 5*. Professor WHITE. Open to those who have had courses 1 and 2, or an equivalent.

5. Goethe's *Life and Writings*. M., W., F., 11, *Morrill 13*. Professor HEWETT. Open to those who have had courses 1 and 2, or an equivalent.

[6. Schiller's *Life and Works*. Three hours weekly, 1898-99. Professor WHITE. Open to those who have had courses 1 and 2, or an equivalent.]

[7. Goethe's *Faust*. Pts. I and II. Fall and winter terms: the modern drama. Three hours weekly, 1898-99. Professor HEWETT.]

8. German historical dramas. Schiller's *Don Carlos*, Goethe's *Egmont*, Schiller's *Wallenstein*. References to the history of the periods involved. T., Th., 9, *Morrill 5*. Professor WHITE. Open to those who have had courses 1 and 2, or an equivalent.

9. The modern novel. Freytag, Auerbach, and Scheffel. M., W., F., 10, *Morrill 13*. Professor HEWETT.

10. Teacher's course. Methods of teaching modern languages; selection of text-books; questions regarding pronunciation, etymology, syntax, prose composition, etc. Fall and winter terms. Monday afternoons. Professor WHITE. Open, by application, to juniors and seniors.

[11. Lessing's *Life and Writings*. Fall and winter terms. The novel of the nineteenth century. Spring term, 1898-99. Professor HEWETT.]

12. Old Saxon. An introduction to the study of the Old Saxon

language and literature, with the reading of portions of the Heliand and the Genesis. Winter and spring terms. Two hours weekly, on days to be arranged by consultation. *Morrill 21.* Dr. JONES.

13. German Seminary. The history of German literature from the beginning to the Reformation, with illustrative readings. Fall and winter terms. Lectures on Early German institutions, mythology and art. Spring term. For teachers and advanced students. Thursday afternoons at 2:30. Professor HEWETT.

14. Middle High German Seminary. The Nibelungenlied and the poems of Walther von der Vogelweide. Wednesday afternoons. Open, by application, to seniors and graduates. Professor WHITE.

[15. Old High German. 1898-99. Full announcement later.]

[16. German Seminary. In 1898-99, Lessing's Laokoon, and Goethe's Italienische Reise. Professor WHITE.]

17. An Introduction to the Dutch language. Lectures and recitations based on Cosijn's Nederlandsche Spraakkunst. S., 12, *White 10.* Mr. VERGAUVEN.

ROMANCE LANGUAGES.

Instruction in French during the first year is essentially the same for all courses. It is expected that students in the technical courses, who take but one year of French, will be enabled to read ordinary French scientific works and the French text-books which may be used in their courses. In the second year the object of study is more literary than grammatical; two hours a week are devoted to reading advanced French and the study of the history of the literature, with special reference to its principal schools or movements. One hour a week is given up to French composition, dictation, and pronunciation.

The instruction in the department is so planned that a student who pursues French for three or four years has an opportunity to study every period in French literature from the mediæval to the modern. Special instruction is also provided for graduates and other advanced students in French philology, Old-French, and Provençal.

The courses in Spanish and Italian are of two years each, two hours a week. The grammar is rapidly studied the first term, and reading begun in the second. In the second year more advanced works in Spanish and Italian are read; in the former, Cervantes and Calderon; in the latter, selections from Dante, Petrarch, and Boccaccio, with lectures on the history of the literature. Advanced instruction is given in Spanish and Italian philology.

The library, in which a seminary room has recently been provided,

is well furnished with materials for the special study of French literature of the XVIIIth century and of the Romantic School, while means are not wanting for the study of other periods, and of the other Romance literature and philology.

The following courses are offered in 1897-98.

Course 1 (which cannot be taken to make up an entrance deficiency) is for beginners in French.

Course 2 (which cannot be taken to make up an entrance deficiency) is otherwise open to those who have had the equivalent of course 1.

Courses 3, 4, 6, 7, 10, are open, under the restrictions hereafter noted, to those only who have had at least the equivalent of courses 1, 2.

Course 1, and under certain restrictions, courses 2, 3, 4, 6, 7, 10, 16, 17 are open to Freshmen.

1. Bevier's French Grammar. Rollins's French Reader. M., W., F., 10. *White 11.* Dr. LODEMAN. 11. *White 4.* Dr. LODEMAN. *White 11.* Mr. VERGAUVEN. 12. *White 10.* Mr. VERGAUVEN. *White 11.* Mr. OLMSTED. T., Th., S. 10. *White 11.* Mr. OLMSTED. 11. *White 10.* Mr. MOORE. 12. *White 4.* Mr. MOORE.

2. Erckmann-Chatrian's *Le Conscrit de 1813*. About's *Le Roi des Montagnes*. Hugo's *Ruy Blas*. M., W., F., 9. *White 4.* Dr. LODEMAN. 10. *White 10.* Mr. MOORE. 11. *White 10.* Mr. MOORE. *White 13.* Mr. OLMSTED. T., Th., S., 9. *White 11.* Mr. OLMSTED. 10. *White 4.* Dr. LODEMAN.

3. Literature of the seventeenth century. Lectures and recitations, based on Bernardin's *Morceaux choisis des classiques français du XVII^e siècle*, with readings of plays by Corneille, Racine, and Molière. M., W., F., 9. *White 10.* Professor CRANE.

[In and after 1898-99 this course will alternate with a similar course on the Eighteenth Century.]

This course is open to all who have had courses 1, 2, and is a prerequisite for admission to courses in this department dealing with the literature of the Seventeenth Century.

4. The Precursors of the French Romantic School. Chateaubriand and Mme de Staël. Recitations and lectures. T., Th. *White 10.* Professor CRANE.

[In and after 1898-99 this course will alternate with a similar course on the French Romantic School.] Open to those who have had courses 1, 2.

5. French Seminary. The French novel in the seventeenth century. W., F., 8. *French Seminary Room, Library.* Professor CRANE. Open only to those who have had courses 1, 2, 3.

6. Origin and development of the French language and literature down to the XVIth century. Lectures. S., 9. *White 10.* Professor CRANE. Open to those who have had courses 1, 2, and some knowledge of Latin.

7*. Modern French Drama. T., Th., 9. *White 4.* Mr. MOORE. Open to those who have had courses 1, 2.

8*. Romance Seminary. Phonetics, early French, or Provençal, texts, etc. T., Th., 9. *French Seminary Room, Library.* Dr. LODEMAN. Open to those who have had courses 1, 2, 3, and Latin required for admission.

9. General survey of French literature in the XIXth century. T., Th., 11. *White 4.* Mr. VERGAUVEN. This course will be conducted entirely in French and is open only to those who have had courses 1, 2, 3, or their equivalent, and have attained considerable proficiency in understanding spoken French.

10. Elementary course in French conversation. T., Th., 10. *White, 10.* Mr. VERGAUVEN. The aim of this course will be to give the student an opportunity to use the vocabulary already acquired by previous reading. It will consist of easy anecdotes, read and discussed in the class, introducing subjects of everyday conversation. Open to those who have had courses 1, 2, and in the judgment of the instructor are capable of pursuing the course with profit.

11. Advanced course in French conversation and composition. T., Th., 9. *White 11.* Mr. VERGAUVEN. The subjects of conversation in this course will have special relation to the history, customs, and description of France and to events in the political history of Europe. Each student will, during the year, be required to write at least three essays in French.

Open especially to post-graduate students and to those who have attained considerable proficiency in speaking and writing French.

12. The French Humorists from the XIIth to the XIXth century. S., 10. *White 10.* Mr. VERGAUVEN. Readings and lectures in French. Open to those entitled to take course 9.

13*. French language and literature of the XVIth century. Lectures and recitations based on Darmesteter and Hatzfeld's *Le Seizième Siècle en France*. W., F., 10. *White 13.* Mr. OLMSTED. Open to those who have had courses 1, 2, 3.

14*. Italian Reading. Selections from Dante, Petrarch and Boccaccio, with lectures on early Italian literature. T., Th., 8. *White 10.* Professor CRANE. Open to those who had course 16.

15*. Italian Seminary. Old Italian texts, based on Monaci's *Crestomazia Italiana dei primi secoli*, and as a rapid review, Stoppato's *Fon-*

ologia Italiana. One hour a week will be given to the literature of the XVIth century, Ariosto, Tasso, etc. M., S., 8. *French Seminary Room, Library.* Professor CRANE. Open to those who have had course 14.

16*. Italian grammar and reading. T., Th., 8. *White 4.* Mr. OLMSTED. This course cannot be taken in the same year with course 17, and is open to those who have had advanced entrance French or Latin.

18*. Spanish grammar and reading. M., W., 8. *White 10.* Dr. LODEMAN. This course cannot be taken in the same year with course 16, and is open to those who have had advanced entrance French or Latin.

18*. Spanish reading. Cervantes, Calderon, Lope de Vega. T., Th., 8. *White 4.* Dr. LODEMAN. Open to those who have had course 17.

The hours for the courses marked with an asterisk may be changed to meet the convenience of those desiring to take them.

ENGLISH.

RHETORIC.

Course 1 is fundamental. Thorough instruction is given in the structure of the sentence and the paragraph; the general principles of diction are also taught and illustrated. Course 2 is a training in daily observation and reflection and in rapid practical writing.

Courses 4 and 5 are literary in substance, but are shaped with a view to the acquisition of a more finished prose style.

Courses 3 and 9 are planned for persons intending to become high-school teachers or desirous of studying literary expression more systematically.

Course 6 is planned for persons intending to study law, history, political science, philosophy, and other subjects involving a knowledge of argumentative methods.

Course 7 is intended to supplement Courses 3 and 4.

PHILOLOGY.

Course 10 is elementary, for persons intending to become high-school teachers or desirous of studying early English history or Elizabethan literature.

Courses 11 and 12 are for students of early English literature.

Courses 13, 14, 15, 16 give thorough training in the methods of philological science as applied to English. The language is studied

in its historical evolution, from the earliest recorded movements down to the seventeenth century. Stress is laid upon the relations between English and the cognate languages of the Continent. The collections of books and other material in the University (and Seminary) libraries and in the possession of the head of the department are quite complete and afford ample facilities for the most advanced research.

Courses 1, 2, 3, 4 (or 5), 9, and 10 are required of students who desire to be recommended—by the department—to English high-school teacherships.

The following courses are offered in 1897-98 :

1. The technique of narrative, descriptive, and expository writing. A three-hour course, open to all members of the Academic Department. One lecture weekly, and two exercises in paragraphing, essay-draughting, and the interpretation of illustrative texts in connection with Hart's Handbook of English Composition. T., Th., 9; M., W., 11, *White 1*. Mr. NORTHUP. M., W., 10; T., Th., 11, *White 1*. Mr. GASTON. Th., 12, *Library Hall*. Professor HART.

2. Short Paper Course, counting as two hours. For students who have had Course 1. Each member of the class will write every week a fixed number of papers of moderate prescribed length, upon subjects chosen by himself. He will also meet the instructor once in two weeks, for consultation. For further particulars see printed card of directions, furnished on application. Assistant Professor PRESCOTT and Mr. NORTHUP.

3. Literary Forms. Open to all members of the Academic Department. Not a course in composition, but a course in the recognition and classification of the leading forms in prose literature and in poetry. An approximate idea of the scope of the study may be obtained, for the forms of poetry, by consulting Hart's Handbook of English Composition, ch. xvi. The instruction will consist in lectures, collateral reading, discussions, and the preparation of abstracts of texts read collaterally. T., Th., 10, *White 2*. Dr. STRUNK.

4. English Prose, from Elizabeth to Anne. Open to students who have had Course 1. Study of Sidney's Apology, Lodge's Rosalind, Bacon's Essays, Dryden's Essay of Dramatic Poesy, Swift's Battle of the Books, with collateral reading. Other works of the period will be studied, as time may permit. Lectures upon the authors and their works. M., W., F., 10, *White 1b*. Dr. STRUNK.

5. English Prose, Eighteenth Century. Open to students who have had Course 1. Lectures upon the leading prose writers, with especial reference to Style. T., Th., 9, *White 2*. Assistant Professor PRESCOTT.

6. Argumentative Writing. Open to students who have had Course 1. Exposition of the theory of evidence in literary and historical questions, with thorough practice in the preparation of written argumentative abstracts and briefs. M., W., F., 10, *White* 2. Assistant Professor PRESCOTT.

7. Origin and Development of English Dramatic Theory and Forms. Open to students who have had Courses 1, 3 (in and after 1898) and 10. Lectures upon the influence exerted by the Church Plays (Latin-French), and upon the relation of English dramatic forms to Classic. Readings in Pollard's English Miracle Plays, Moralities and Interludes. T., Th., 10, *Morrill* 22. Professor HART.

9. Teachers' Class in Rhetoric. Open to students who have had Courses, 1, 2, 3, 4 (or 5), and 10. A study of the general theory of composition, applied to the criticism of the books prescribed for the entrance examination in English, and to the preparation of themes for school-exercises. T., Th., 9, *Morrill* 22. Professor HART.

10. The History of the English Language. Open to all members of the Academic Department. An elementary course, complete in itself, but also furnishing a useful introduction to more systematic study. Lectures, in connection with Emerson's Briefer History of the English Language and readings in Sweet's Primers of Old English, Middle English, and Chaucer. T., F., 12, *White* 1. Dr. STRUNK.

11. Old English (Anglo-Saxon). A course in the language and its literature before the Conquest, for literary students who are not engaged in philological research. A knowledge of German grammar and the ability to read simple German prose are required for admission. Readings in Bright's Anglo Saxon Reader, with lectures upon such features of Modern English as are readily illustrated from Old English usage. T., Th., 11, *White* 2. Dr. STRUNK.

[12. Middle English. Language and literature, 1100-1500. For students who have had Course 11, and given in alternation with that course.]

13. Old English Philology: For students engaged in the systematic study of the language. A knowledge of Greek, Latin, and German is required for admission.

a. Fall term. Gothic, its phonology and inflections, with readings in Wright's Gothic Language Primer, and lectures upon the relations of Gothic to Indo-European and Germanic, based chiefly upon Streitberg's *Urgermanische Grammatik*.

(Students pursuing General Comparative, or Germanic, Philology and not wishing to specialize in English, may discontinue at the end of this term.)

6. Winter and Spring Terms. Anglo-Saxon, its phonology and inflections, with a study of Cook-Sievers, Old English Grammar, and MacLean's Old and Middle English Reader. Lectures upon word-formation and inflection in Gothic and Old English. M., W., F., 9, *English Seminary Room*. Dr. STRUNK.

14. Middle English Philology. For students who have had Course 13. A critical study of the changes in the language, 1100-1500. Readings in Morris-Skeat, Specimens of Early English, Part I, with lectures upon Middle English phonology, based chiefly upon the treatises of Sweet, Kluge, and Morsbach. M., W., F., 9. *Morrill 22*. Professor HART.

15. Reading of longer Old English texts, prose and verse. For students who have had Course 13. (Hours to be arranged upon consultation.) *Morrill 22*. Professor HART.

16. Reading of longer Middle English texts. For students who have had Course 14. (Hours to be arranged.) *Morrill 22*. Professor HART.

[18. A course in Old Danish and Old Swedish, or in Icelandic, may be announced for 1897-8.]

Courses 1, 2, 3, 4, 5, 6, 10, are for undergraduates only and may not be taken as graduate studies.

Courses 14, 15, 16 are primarily graduate studies, but 14 may be taken by undergraduates.

Courses 7, 9, 11, 12, 13 are primarily undergraduate studies, but may be taken as minor subjects for advanced degrees.

ENGLISH LITERATURE.

It is made a leading purpose to present the literature, in its *essential* character, rather than in its historical, though the latter receives attention, but not such as to set the minds of students especially in that direction. It is considered all important that students should first attain to a sympathetic appreciation of what is *essential* and *intrinsic*, before the adventitious features of literature—features due to time and place—be considered.

There are four literary seminaries, the studies in which are confined to prose literature, English and American. A work is assigned to each student, of which he makes a careful study, and embodies the result in a paper, which is read in the seminary, and afterwards discussed by the several members, each member having been required to read, in advance, the work in hand.

The following courses are offered in 1897-98.

30. Lectures on English Literature, from Chaucer to Tennyson and Browning, in eight groups, of which Chaucer, Spenser, Shakespeare, Milton, Dryden, Pope, Wordsworth, Browning and Tennyson, are

made the central figures. The readings required in connection with the lectures are assigned at the beginning of each term. Five hours. M., T., W., Th., F., 10. *Barnes Hall*. Professor CORSON.

32. A course of Shakespearian readings, with comments chiefly on the dramatic movements and motives, four readings being devoted to each play selected. The following Plays will be read, and in the order here presented: *Romeo and Juliet*, *The Merchant of Venice*, *A Midsummer Night's Dream*, *King John I and II*, *King Henry IV.*, *All's Well that Ends Well*, *Much Ado about Nothing*, *King Henry V*, *Twelfth Night*, *As You Like It*, *Hamlet*, *Julius Cæsar*, *Othello*, *King Lear*, *Macbeth*, *Antony and Cleopatra*, *Coriolanus*, *The Winter's Tale*, *The Tempest*. Two hours. T., Th., 3. *Barnes Hall*. Professor CORSON.

33. A course of lectures, with readings, on American literature, poetical and prose. Two hours. W., F., 11. *Barnes Hall*. Professor CORSON.

34a. Seminary in English Literature: 19th century prose, not including novels. Two hours. Professor CORSON.

34b. Seminary in English Literature: 17th and 18th century prose, not including novels. Two hours. Professor CORSON.

36a. Seminary in English Literature: Novelists of the 19th century. Two hours. Professor CORSON.

36b. Seminary in English Literature: Novelists of the 18th century. Two hours. Professor CORSON.

The seminaries are open to graduates, to special students in English Literature, and to undergraduates who have taken course 30 and have maintained a satisfactory rank throughout the course.

The Professor reserves the right of refusing admission to a seminary of any applicant from either of the above classes of students, whom he may have sufficient reason to regard as unqualified for seminary work.

No student is admitted to a seminary for a less period than a year.

37. Lectures on English Poets of the Romantic School: Shelley, Byron, Keats, Wordsworth, Coleridge. Three hours. Miss BROWNELL. The lectures are open to graduates, to special students in English Literature, and to undergraduates who have taken course 30, and have maintained a satisfactory rank throughout the course.

ELOCUTION AND ORATORY.

Office, White 16a.

The instruction of the department embraces the science and the art of literary interpretation and expression, oratorical writing and delivery, and argumentation.

The essentials of good speaking are taught in five elective courses so planned as to afford a knowledge of the principles and opportunity to apply these principles under the direction of instructors.

The aim of the course in public speaking is to give the student a practical training in the technique of elocution which will fit him to pursue the advanced courses in extempore speaking, debate and oratory, and prepare him as a speaker and thinker for public and professional life.

Those who elect the course are divided into sections and the class exercises are conducted by the Professor of Elocution and Oratory. The work of the class-room is supplemented and further applied by the assistants in the department, who meet the students of the several sections by appointment.

Principles of thought and action are established inductively and applied by the student in connection with selections from orations and speeches of public men. The plan calls into play constantly the powers of observation, memory and reasoning. The system recognizes that the student should be developed from within outward, that mental action determines physical expression, and that the effort to attain the right action of the mind trains the student in original thinking. Stress is laid on individual interpretation of thought and motive, complete assimilation, expression determined by the thought not by the form of the sentence, rational gesture prompted by impulse, and a vocal culture that carries on voice-building and mental training simultaneously. No imitation is permitted, and little of dogmatic or "elocutionary" theory finds a foothold. The purpose is to train, not public readers and elocutionists, but public speakers,—to start the young speaker on a course that will enable him to appear before an audience with composure, dignity, and grace and to speak so as to be heard, to be understood, and to be believed.

In the spring term there is a public contest in declamation for the memorial prize founded by the Class of Eighty-six. There are twelve contestants, selected from the junior class by the Professor of Elocution and Oratory.

The course in oratory aims to acquaint the student with the masters and masterpieces of the oratorical art and to develop such an appreciation of true oratorical style on the part of the student that his writing while retaining its individuality may be made more vigorous and finished and better adapted to public delivery. The course comprises lectures on the structure of orations and on oral discourse, the study of famous speeches, and the writing and speaking of ora-

tions. The productions are read and criticised with the writers, and are then delivered at weekly oratorical exercises, which are open to the public.

A seminary for the study of English style in oral discourse is conducted during the second term.

In the spring term there is a public contest in original oratory for the prize founded by the Hon. Stewart L. Woodford. Seniors may compete for a place in this contest according to conditions elsewhere described.

The courses in debate and extempore speaking are designed to ground the student in the principles of analysis, evidence and persuasion, and to give practice in the fields of argumentation and original public speaking under the eye of an instructor who offers criticisms and suggestions.

In the winter term there is held a public debate for the memorial prize founded by the class of Ninety-four. Not more than eight contestants are chosen to compete for this prize according to conditions elsewhere described.

The prizes of the department are not restricted to any college or colleges of the University.

The following courses are offered in 1897-8:

20. Public Speaking. The technique of elocution. A study of mental concepts, interpretation and expression. Instruction in breathing, voice-building, articulation, inflection, gesture and general delivery. Extracts from orations, memorized, interpreted and delivered in class and in public, with criticism and suggestion. Weekly rhetorical exercises last half of year. Designed for juniors and seniors. M., W., F., 9, 10, 11, *White 16*. Assistant Professor LEE. Supplementary personal instruction throughout the year by appointment. Mr. LEWIS.

Students who expect to study public speaking sometime in their University course, are advised to elect English 20 in their junior year.

20a. Public Speaking. Adapted to the special needs of students in the College of Law. Open to all law students who are not deficient in the English prescribed for admission to the College. M., W., F., 8, 12. T., Th., S., 8, *White 16*. Mr. SHURTER.

The '86 Memorial Prize in declamation for juniors is awarded annually in connection with courses 20 and 20a.

21. Oratory. The writing and delivery of orations; theory and practice. Fall and winter terms. Three hours. Fall term, lectures upon oral discourse and the structure of orations; the study and

analysis of British and American masterpieces ; exercises in writing orations, speeches and addresses. Each production read and criticised with the author. T., Th., 12. Winter term, weekly public oratorical exercises. M., 7:30. Seminary for the study of English style in oral discourse. T., 12. Other exercises as assigned. *White 16.* Open to seniors who have pursued with distinction English 20, or its equivalent. Assistant Professor LEE.

Instruction in this course keeps in view the Woodford Prize in oratory.

Students who propose to take oratory are advised to elect as a desirable preparation the rhetoric courses of freshman and sophomore years.

22. Debate. The theory of the preparation of debates with practice in oral presentation. Each debate preceded by briefs. Open to a limited number of juniors who have pursued English 20 with distinction, and who show fitness in a competition to be held at the opening of the winter term. Winter and spring terms. Course continues throughout the fall term of the following year. S., 9-11, *White 16.* Assistant Professor LEE.

Students who expect to apply for admission to English 22 are advised to elect English 6 and to take same in connection with this course. In the year 1898-99, English 6 will be required for admission to this course.

23. Extempore Speaking. Exercises based upon assigned topics, thoroughly mastered, in the fields of American history, political science, education and current events. Study of outlines and briefs. Open to a limited number of seniors who have pursued English 20. Admission to the course will be determined by competition at the opening of the fall term. M., 4-6, *White 16.* Assistant Professor LEE.

Instruction in courses 22 and 23 is directed toward the acquisition of a proficiency in extemporaneous speaking and debate, in which field the University offers the '94 Memorial Prize.

In connection with all of the above courses, provision is made for personal conference between each student and his instructors.

PHILOSOPHY.

The Department of Philosophy is known as "THE SUSAN LINN SAGE SCHOOL OF PHILOSOPHY." This school owes its existence to the generosity of the Hon. Henry W. Sage, Chairman of the Board of Trustees. At a meeting of the Board held Oct. 22d, 1890, Mr. Sage signified his intention of adding to the endowment of the Susan Linn

Sage philosophical professorship, which he had established in 1886 in memory of his wife, a further gift of \$200,000 to the Department of Philosophy. His object was to provide permanently at Cornell University for philosophical instruction and investigation of the most varied kind and of the highest order. To that end he stipulated that the Trustees should, whenever it was needed, supplement the proceeds of his endowments with appropriations from the general funds of the University. The gift was made and the legislation went into effect, in September, 1891.

There are eight members of the instructing corps; a professor of moral philosophy, a professor of psychology, a professor of pedagogy, a professor of the history and philosophy of religion, a professor of logic and metaphysics, an assistant professor of Greek philosophy, an instructor in modern philosophy, a lecturer in philosophy and an assistant in psychology. Thus all sides of philosophy are represented in the courses of instruction. Furthermore every method of discovering truth—observation, experiment, historical investigation, reflection, and speculation—is welcomed within its appropriate domain.

The endowments of the School of Philosophy enable it to secure, besides this large faculty of specialists whatever material facilities they require for the successful prosecution of philosophical studies and research. The apparatus for the Psychological Laboratory was made as required. There is already a full equipment in some of the most important lines, and additions will be continually made as required. All the philosophical journals published, both at home and abroad, are taken. The library is also well supplied with philosophical works; and books not on hand are ordered as soon as called for. In the new library building there is a large seminary room set apart for the exclusive use of advanced students in philosophy. This room contains complete sets of the more important philosophical journals, American, English, French, and German, and a carefully selected collection (which is being constantly enlarged) of books necessary for special study and independent research. Another room in the library building has been assigned to the School as an editorial room for "The Philosophical Review."

The Psychological Laboratory (Morrill Hall) consists of a suite of nine rooms, occupying a space of approximately 140 x 45 feet. Every room is connected with every other by an elaborate system of telegraph wires, so that two or more rooms can be employed in a single investigation. Two rooms are devoted to work in psychological optics (one of them a dark room, 18 x 24 feet); and one each to acoustics, haptics, and chronometrical registration. A large lecture-room is used for experimental drill-work and demonstration. There are

further a workshop and storeroom, a small room for special research work, and an office and seminary. The laboratory is especially rich in acoustical and haptical apparatus, while it is adequately supplied with the instruments necessary in other lines of investigation. The equipment is undergoing continual improvement and apparatus needed for thesis-work is at once procured.

"The Philosophical Review" marks another function of the School, namely, the publishing of the results of investigation. It appears once in two months, each number containing from 112 to 128 pages. A large part of the material of the "Review" is contributed by the professors, fellows, and graduates in the Sage School of Philosophy. It is found that the "Review," which stands thus in the closest connection with the School, is a very powerful stimulus to students, whose constant intercourse with the members of the staff who are engaged in writing and planning for it, enables them to keep abreast of current philosophical problems and discussions. The "Review" also furnishes advanced students with a ready medium of publication. The results of original investigations which have been accepted for doctor's degrees are, in some cases, published in it.

With the "Review" for publishing and a large faculty of specialists for investigating, the school lays great stress upon original research and inquiry. While much of the instruction is intended for undergraduates, the larger part of it is adapted to the needs of graduates of this and other institutions who are preparing themselves for positions as teachers, professors, etc. A student who has made a special study of philosophy during his junior and senior year, may still take a graduate course of three years' work with psychology, or metaphysics, or ethics, or any other single philosophical discipline as his major subject. And for the encouragement of higher studies and research in every branch represented by the School of Philosophy, there have been established for award to distinguished graduates of this and other Universities, six scholarships of the annual value of \$300 each, and three fellowships of the annual value of \$500 each, both scholarships and fellowships being tenable for one year, but subject to renewal in exceptional cases. (A full account of these scholarships and fellowships will be found on page .) The instruction of these advanced students is carried on in the seminaries and laboratory, where the students are fellow-workers with their teachers, who seek to guide them, partly by direct suggestion, and partly by precedent and example. It is believed, too, that students will receive much instruction, as well as enjoyment and benefit, from the close personal intercourse which it is an object of the School to cultivate between graduates and the members of the philosophical faculty.

Persons taking the graduate courses are in this way very effectively trained for the work of teaching; and it may be mentioned that most of the men who have completed their courses, have received appointments as instructors or professors of philosophy in different parts of the country.

Bracketed courses are not given in 1897-98.

The courses in philosophy are designed for sophomores, juniors, seniors and graduates.

I. COURSE PRIMARILY FOR SOPHOMORES.

1. Psychology, Logic, Ethics. Lectures. T., Th., S., 11. Psychology, fall term. Professor Titchener. Logic, winter term. Professor CREIGHTON. Ethics, spring term. Professor SETH. *Library Hall*.

This course is intended as a general introduction to the study of Philosophy through its central disciplines. The course, or its equivalent, is required of all those who purpose to take work in Philosophy during their Junior or Senior year.

2. COURSES PRIMARILY FOR JUNIORS AND SENIORS.

2. Experimental Psychology. Lectures and Laboratory work. M., 3:30-5:30, W., 3:30-5:30, Th., 9. *Morrill 14*. Professor TITCHENER and Mr. BENTLEY.

The course will consist of three parts. (1) A drill-course in the psychology of sensation. (2) A drill-course in the psychophysics of action (reaction-time experiments). (3) Lectures on the psychophysical measurement methods, with experimental illustrations and exercises.

3. History of Ancient and Mediæval Philosophy, with special reference to Plato and Platonism. Lectures. T., Th., 12. *White 5a*. Assistant Professor HAMMOND.

This course will consider the various problems of Philosophy which presented themselves to the Greek mind, and the solutions which the Greeks offered in their historical systems, or fragments of systems from Thales to the Neo-Platonists.

4. History of Philosophy. Lectures, prescribed reading, and occasional essays. T., Th., S., 12. *White 5*. Professor CREIGHTON.

The lectures of this course will give a general account of the history of philosophical thought from its origin among the Greeks to the present time. An attempt will be made to present the various philosophical systems in their relation to the science and general civilization of the ages to which they severally belong, and to estimate their social and political significance.

5. Systematic Ethics. Lectures, discussions, and text-book study. T., Th., S., 11 (fall and winter terms), 8 (spring term). *White 9.* Professor SETH.

An outline of ethical theory, based upon a critical study of the chief systems of ethics, in the light of their historical development. The course will deal mainly with the Moral Ideal, but will include also some consideration of its application to the regulation of life, individual and social.

6. Applied Ethics. Lectures. Th., 12. *White 9.* Professor TYLER.

In the early part of the year, the lectures of this course will be devoted to a discussion of the practical value of the ethical ideals given by Sociology, Utilitarianism, Aesthetics, Optimism, and Culture. During the spring term, the lectures of the course will treat of the bearings of moral standards upon Social Relations, the Duties of Friendship, Riches and Poverty, Public Opinion, the Press, Incivism, and kindred topics.

7. History of Religions. M., W., 12. *White 9.* Professor TYLER.

These lectures will be given in two courses, one hour each. They may be taken separately. The first course will deal with Primitive Religion, and the second with Comparative History of Religion.

8. The Institutes of Education. Lectures. M., W., F., 2. *White 9.* Professor WILLIAMS.

In this course, education is treated first as to its aims, its principles, and its means, from the standpoint of the physical, intellectual, and moral nature of man. From this treatment is deduced a philosophy of method, which, applied first to the four great groups into which school subjects may be divided, is then illustrated fully by a sufficient number of special branches.

READING COURSES.

9. The Dialogues of Plato: the Republic and Theætetus in the Original Text. M., W., F., 10. *White 5a.* Assistant Professor HAMMOND.

This course is intended for students of Greek Literature as well as of Greek Philosophy. The dialogues above named will be read rapidly through, attention being directed both to matter and form.

10. Reading of Psychology in French, German or Italian. T., 9. Professor TITCHENER or Mr. BENTLEY.

The aim of this course is to introduce students to the terminology and literature of foreign psychology.

11. Rapid Reading of German Philosophy. S., 11. *White 5.* Dr. ALBEE.

The primary aim of this course is to render the student assistance in gaining a knowledge of German philosophical terms. Paulsen's *Einleitung in die Philosophie* will be translated and discussed in class.

3. COURSES PRIMARILY FOR SENIORS AND GRADUATES.

12. Systematic Psychology. Lectures, essays, and experimental illustrations. M., W., F., 9. *Morrill 14*. Professor TITCHENER and Mr. BENTLEY.

The object of this course is two-fold : to give the student a complete, if tentative, system of psychology, based upon the results of the experimental investigation of consciousness ; and at the same time, by copious references to rival theories, to orientate him in experimental psychological literature.

13. Locke's Essay concerning Human Understanding, Hume's Treatise of Human Nature, and Leibniz's Philosophical Works. Informal lectures, discussions, and essays. T., Th., S., 10. *White 5*. Dr. ALBEE.

The design of this course is to prepare Juniors and Seniors, and graduate students who have not had a similar course, for more advanced work in Philosophy.

14. The Critical Philosophy of Kant. Lectures, discussions, and essays. M., W., 9. *White 5*. Dr. ALBEE.

This course will presuppose a knowledge of the History of Philosophy and a fair acquaintance with Locke's *Essay*, Berkeley's *Principles of Human Knowledge*, Hume's *Treatise of Human Nature* (Bk. I), and the minor Philosophical Works of Leibniz (as *e. g.*, contained in Duncan's translation).

15. History of Ethics. Lectures, essays, and discussions. W., F., 11. *White 5*. Professor SETH.

A study of the course of ethical reflection, with special reference to the development of the several theories in their relations to one another and to the general influences of their time.

16. [Post-Kantian Idealism : Fichte's *Wissenschaftslehre*, Schelling's *System des transcendentalen Idealismus*, Hegel's *Wissenschaft der Logik*. 3 hrs. Professor CREIGHTON.] This course was given in 1896-97, and will be repeated in 1898-99.

17. Logical Theory. M., W., 12. *White 5a*. Professor CREIGHTON.

This course offers direction to advanced students in studying the recent contributions to logical theory by such writers as Lotze, Sigwart, and Wundt in Germany, and Mill, Bradley, and Bosanquet in England.

18. German Pessimism, with special reference to Schopenhauer and E. von Hartmann. Lectures, discussions, and essays. T., Th., 11. *White 5.* Dr. ALBEE.

While the systems of Schopenhauer and von Hartmann will be treated somewhat in detail in the lectures, the attempt will also be made to show the ethical and social significance of modern Pessimism, and to assist the student in defining his own position with reference to the problems involved.

19. Recent Metaphysical Theories. Lectures. W., 11. *White 9.* Dr. IRONS.

It is proposed in this course to give some account of the progress of philosophical thought in Germany and England since the death of Hegel.

20. Philosophy of Religion. (a) Lectures. (b) Discussions and essays. Th., 4-6. T., 12. *White 9.* Professor TYLER.

In section (a) the grounds of religious belief—metaphysical, ethical, aesthetical, and spiritual—will be treated. In section (b) Martineau's *Study of Religion* and Lotze's *Outlines of the Philosophy of Religion* will be made the basis of work.

21. School Supervision. Lectures. Spring term. W., F., 3. Two hours. *White 9.* Professor WILLIAMS.

This course is devoted to the organization, classification, management, and supervision of schools, the arrangement of courses of study, school buildings and appliances, school hygiene, and school economy. It should be preceded by course 8.

22. Pedagogical Conference. Winter and spring terms. Th., 3-5. *White 9.* Professor WILLIAMS.

This course, which is intended as supplementary to course 8, can be taken only by those who have pursued, or are pursuing, that course.

23. The History of Education. Lectures. T., Th., 2. *White 9.* Professor WILLIAMS. It is essential to success in this course that the student should have a fair knowledge of general history, and it has not been found expedient to undertake it earlier than the senior year.

4. SEMINARIES.

24. Seminary for Psychology, and Advanced Laboratory Work. In graduate and undergraduate sections. Afternoons, except S., 2-6; M., W., F., 10-12. Professor TITCHENER and Mr. BENTLEY.

25. Seminary in Metaphysics and the History of Philosophy. Two hours. Professor CREIGNON and Assistant Professor HAMMOND.

Aristotle's *Metaphysics* will be made the basis of work. Special themes growing out of the study of this treatise will be selected by, or assigned to, members of the Seminary for research.

Regular appointments will further be made by Professors CREIGHTON and HAMMOND with students who are writing theses in Metaphysics or the History of Philosophy for either a baccalaureate or an advanced degree.

26. Ethical Seminary. Two hours. Professor SETH.

A study of one of the great ethical treatises, or of some movement of ethical thought, chosen with reference to the needs of students, especially those engaged in thesis work.

In addition to the above course, regular appointments will be made with students (graduate or undergraduate) who are writing theses in Ethics.

27. Pedagogical Seminary. Two hours a week. Professor WILLIAMS.

This course is intended to afford to those who have pursued courses 8 and 23 with success, and who have a ready command of German, an opportunity to examine critically certain approved works of German pedagogy.

28. Seminary for the History and Philosophy of Religion. Two hours a week. Professor TYLER.

In this course, graduate students who have undertaken theses on the History or Philosophy of Religion will be assisted in the work of investigation.

MUSICAL COURSES.

Two courses of Musical Instruction will be given under the direction of the Executive Committee of the Choral Union. Each course to receive one hour of University credit.

1. A course in Voice-production and Elementary Sight-reading. Instruction and practice. Conducted by Mr. J. D. BEALL, of the Conservatory of Music. T., Th., 5:15-6.

2. A course in Chorus-singing, with especial reference to Anthem-singing and Hymnology. Instruction and practice. Conducted by Mr. J. D. BEALL, of the Conservatory of Music. M., W., 5:15-6.

Course 1 is open to all students, whether with or without previous musical training. Course 2 can be taken only by those who are able to read music at sight fairly well. Particulars may be obtained from Professor Titchener.

HISTORY AND POLITICAL SCIENCE.

By action of the Board of Trustees, in view of the gift to the University by ex-President Andrew D. White of his valuable historical library, the departments of History and Political Science have been named THE PRESIDENT WHITE SCHOOL OF HISTORY AND POLITICAL

SCIENCE. The work of these departments is carried on by four professors, one associate professor, one assistant professor, and two instructors.

A.—Ancient and Mediæval History.

As a general introduction to the study of history a lecture course of one hour weekly deals with the scope, the materials, and the methods of the study, with the sciences auxiliary to history, and with the elements of historical geography. This course is meant, however, less for beginners than for those fitting themselves for the teaching or writing of history. A two-hour course of alternate lectures and examinations, running through two years, is devoted to the history and civilization of ancient Greece and Rome. It is intended only for those who have not had pre-university training in these subjects. (Courses on the life and the antiquities of the Greeks and the Romans are offered by the professors of Greek and of Latin; and the history of the Orient is treated in a course of two years by the professor of Semitics.) The general history, political, social, and ecclesiastical, of the Middle Ages, is treated in a lecture course of three hours throughout the year, alternating with a similar course on the Age of the Renaissance and the Reformation. For training in historical research in this field there is offered a year's seminary course; the class is first familiarized with the mediæval Latin which is the language of the sources, then taught to read the manuscripts and to interpret the documents of the Middle Ages, and, thus fitted, is in the third term set at the critical study of some event, period or author, in free use of the resources of the library.

B.—Modern European History.

The department of Modern European History, which includes English History in its entirety, offers four courses of lectures, each extending through the entire year. In Modern European History the general course covers from the beginning of the 17th century to the present time, devoting one term to the 17th, 18th, and 19th centuries respectively. Students who have taken this course are permitted to attend the more advanced lectures, devoted to special periods, such as the French Revolution, the Napoleonic Era, the Reign of Frederick the Great, etc., and are trained in the use of primary authorities. In English History a general course is given, which covers the entire history of the nation, while the more advanced course treats of English Constitutional History, with special reference to the growth of those institutions, legal and political, which have been perpetuated and de-

veloped in America. Graduate students meet once a week for special work in a seminary room equipped for the purpose.

C.—American History.

In American History are eight principal courses, each one extending through an entire year. The first four courses are designed to give a systematic view of the general history of our country, including also the Commonwealth of New York, from the earliest times to the present; with constant reference to the primary sources of knowledge on the subject, to the principles of historic criticism, and to the proper estimation and use of the leading secondary authorities.

The fifth course which is open only to those who have already taken at least one of the introductory courses just mentioned, is intended to furnish a special and somewhat technical study of American Constitutional History during the colonial, revolutionary, and national periods.

Besides these, there are three courses for training in historical research and in the formulation of results; two being seminaries for undergraduates, the third being the American History Seminary proper, and open to graduates only. For the exclusive use of this graduate seminary is a suitable room in the library, where ample facilities are provided for historical research in the primary documents. Each seminary holds a meeting every week for reports of work done, with criticisms of methods and discussions of results.

D.—Political Science.

In Political Economy an elementary course is offered of three hours a week for two terms. The course is divided into two parts: (a) Work based on Bullock's "Introduction to the Study of Economics," two hours a week. The class will be divided into four sections so as to afford ample opportunity for questions and discussions. An outline of the whole subject will be given. (b) A lecture will be given to the whole class once a week. In these lectures special topics of importance will be discussed more in detail than is possible in the regular classes. During the third term the course is continued by lectures introductory to the whole field of Political Science, explaining the nature of Politics, Social Science, Economics, and Finance and their relation to cognate sciences. The students in engineering take instead a course in Transportation which is open to other students also.

In the advanced courses the study of the historic development of economic theories aims to give a thorough knowledge of the science from the theoretic side, while other courses: Money, Credit, and

Banking with a History of Financial Legislation in the United States; The History, Statistics, and Theory of International Trade; The Wages System and Plans for Social Reform; Taxation, Public Credit and Financial Administration; Financial and Constitutional History of the State of New York emphasize the practical side of the study. The courses in the Industrial and Economic History of Europe and the United States will supply a much needed knowledge of economic facts with their causal relations. In the course in Economic Legislation, a study of some economic questions that are at present subjects of legislation, with the use of bills actually before a legislature and a comparative study of the laws of other states and countries, will serve not merely to throw light upon the subjects discussed, but also to explain why many laws on such subjects seem so imperfect and to show the complex nature of the task of the conscientious, trained legislator.

The course in Political Institutions by a brief study of their nature and history and by a somewhat detailed comparison between the chief systems of government in Europe and the United States, with especial reference to the practical working rather than to the mere letter of the law, aims to give needed knowledge of these important facts, possibly to suggest at times needed reforms in our own political practices, and especially to develop habits of thinking in an unprejudiced way on political questions. Much attention is given to the subject of local and municipal government.

The courses in the History of Political Ideas and those in International Law and General Jurisprudence aim to give information of general interest and value to all thoughtful citizens, while the one discussing Modern Questions in International Politics, besides helping to make clear the political relations of modern states, may afford also present day illustrations of political principles in action.

The elementary course in Social Science begins with an effort to determine the social significance of the theory of evolution. In the light of this analysis the rest of the year is given to a survey of some important social questions (such as pauperism, crime, immigration, and race problems). The aim is to present the changes and principles of change in society and to encourage the disinterested investigation of social questions. At least one essay embodying the results of personal research is required of each student. There are two advanced courses which are given in alternate years. The theoretical course is a study of the logic of the social sciences and especially of sociology. The practical course is a detailed study of a few closely related social questions. It will presuppose a familiarity with the simpler statistical methods and is thus a natural continuation of the elementary course

in Social Statistics. This last runs parallel to the elementary course in social science and the two may profitably be taken the same year. It is occupied mainly with a critical study and analysis of the social statistics of the United States in 1890. It aims to exemplify sound methods and point out erroneous methods of statistical investigation, and to prepare students for independent statistical research. The library has recently secured a number of sets of standard statistical periodicals and is now exceptionally well supplied. It has complete sets of the *Zeitschrift des königlichen preussischen statistischen Bureaus*, *Zeitschrift des königlichen sächsischen statistischen Bureaus*, *Statistische Monatschrift Jahrbücher für Nationalökonomie und Statistik*, *Journal de la Société de Statistique de Paris*, *Journal of the Royal Statistical Society*, as well as many more recently started series. The statistical laboratory is equipped with slide rules, a comptometer, etc., and students are trained to familiarity with their use.

The elementary course in Anthropology aims by reading, discussion and investigation to give a more definite idea of the significance for the social sciences of the theory of evolution and of studies inspired by it.

Throughout the department, while economic and political theories are not neglected, the effort is to make the courses of much direct, practical value to students about to enter active life as citizens. This purpose is kept in view not merely in the selection of subjects for the courses, but also in the methods employed in teaching. Independent, unprejudiced, scientific habits of thinking on even partisan questions are aimed at rather than the inculcation of the doctrines in which the teacher may believe.

Besides the emphasis laid on questions of the day in several of the courses, special lecturers are often secured to speak on subjects on which they are authorities.

The seminaries of the department afford excellent opportunities to advanced students to carry on special investigations along economic, social or political lines. The seminary room in the new library building is well supplied with sets of periodicals and collections of works chosen with reference to the needs of students in these branches; the White Library is especially rich in certain subjects treated; the special collection of foreign statutes and the Moak Library of the Law Department are of great value for the study of many political questions, while new works are at times purchased to aid in special investigation.

Bracketed courses are not given in 1897-98.

I. HISTORY.

Students intending to devote themselves especially to the study of History are advised to elect in their freshman year one or more of the courses numbered 4, 9, 21, and to devote as much as possible of the rest of their time to the study of language. Latin, French, and German will be found indispensable in much of their later work. In the sophomore year they are advised to elect course 13 and course 22; in the junior year, course 14 and course 23. Other courses in History should be elected as early as the student is in possession of the qualifications required.

A. ANCIENT AND MEDIÆVAL HISTORY.

Consultation hours: Professor BURR, M., W., F., 12:10-1:10. For Professors WHEELER and BENNETT, see under GREEK and LATIN. For Professor SCHMIDT, see under SEMITIC LANGUAGES.

[1a. Ancient Greece. Lectures and examinations. Fall term: to the end of the Persian wars. Winter term: to the march of Alexander. Spring term: to the absorption by Rome. Designed for those who have not passed an examination in Greek History at entrance to the university. W., F., 9. Professor BURR.]

1b. Ancient Rome. Lectures and examinations. Fall term: to the end of the Punic wars. Winter term: to the death of Augustus. Spring term: to the loss of the West. Designed for those who have not passed an examination in Roman History at entrance to the university. W., F., 9. Professor BURR.

Courses 1a and 1b are given in alternate years.

[2a. Greek Life. Fall term: the land and the people. Winter term: home life and private antiquities. Spring term: public life and social institutions. A study of the private life of the Greeks, with illustrations (by lantern views, photographs, etc.) from ancient monuments and remains. T., Th., 10, *White 6*. Professor WHEELER.]

2b. Greek Literature as embodying Greek ideas of Life. Lectures on the development of social and religious ideas as traceable in the literature. Readings from representative authors in English translations. Fall and winter terms. T., Th., 10, *White 6*. Professor WHEELER.

2c. Political and Legal Antiquities of the Greeks. Lectures. Theories of the state. Political mechanism. Courts and legal procedure. Spring term. T., Th., 10, *White 6*. Professor WHEELER.

3. The Life of the Romans. Open to students of the sophomore, junior, and senior years. W., F., 12, *Morrill 3*, Professor BENNETT.

A systematic consideration of the constitution of the Roman family, marriage, the status of women, children, slavery, education, the Roman house and its furniture, food, dress, baths, games and amusements, books, trade, arts, and industries, religion, death, burial, etc. Lectures copiously illustrated by lantern views, photographs, casts, and other material from the University collections.

See Latin, course 9.

Courses 2a and 3 are given in alternate years.

4a. Europe during the Middle Ages. Lectures and discussions. Open (save by special permission) only to those already acquainted with the history of Greece and Rome. T., Th., S., 9, *Barnes Hall*. Professor BURR.

[4b. The Renaissance and the Reformation. Open (save by special permission) only to those already acquainted with the history of Greece and Rome. T., Th., S., 9, *Barnes Hall*. Professor BURR.]

Courses 4a and 4b are given in alternate years.

5. Courses 5a, 5b, and 5c, while they have no necessary dependence on each other and may be taken singly by such as are prepared, are arranged to form a year of continuous seminary work in mediæval history. A reading knowledge of Latin is required.

5a. Seminary in Mediæval History. The reading of some mediæval chronicler, with a view to an acquaintance with mediæval life and a familiarity with mediæval Latin. For the year 1897-98 the chronicler will be Adam of Bremen. Fall term. W., 4-6, *European Historical Seminary*. Professor BURR.

5b. Palæography and Diplomatics (the reading of historical manuscripts and the interpretation of historical documents, especially those of the Middle Ages). The course is one of actual study of the manuscripts and facsimiles in the University's possession. Winter term. W., 4-6, *European Historical Seminary*. Professor BURR.

5c. Seminary in Mediæval History. The critical study of some author, period, event, or phase of mediæval history. For the present year the topic will be: Jeanne d'Arc. Spring term. W., 4-6, *European Historical Seminary*. Professor BURR.

7. An Introduction to the Study of History. *a.* History: its scope, its materials, its methods. *b.* The sciences auxiliary to History. *c.* Historical Geography. M., 9, *European Historical Seminary*. Professor BURR.

9a. Oriental History. Fall term: Syria. Winter term: Babylonia and Assyria. Spring term: The Bagdad Caliphate. T., Th., 2. *White 3 B.* Professor SCHMIDT.

[9b. Oriental History. Fall term: Egypt. Winter term: India.

Spring term : The Spanish Caliphate. T., Th., 2, *White 3 B.* Professor SCHMIDT.]

See Semitic Languages, courses 8 and 14.

Courses 9a and 9b are given in alternate years.

B. MODERN EUROPEAN HISTORY.

13. General History of England. Lectures and examinations on text book. M., W., F., 12, *Boardman Hall, Room C.* Designed for sophomores. Freshmen not admitted. Professor MORSE STEPHENS.

14. General History of Europe from the commencement of the 17th Century to the present time. Lectures and examinations. M., W., F., 11, *Boardman Hall, Room B.* Designed especially for juniors. A reading knowledge of French or German is required. Professor MORSE STEPHENS.

15. History of the French Revolution. 1789-1799. Lectures. T., Th., 11. *Boardman, Room B.* Open to those who have had course 14, or its equivalent. Professor MORSE STEPHENS.

[16. History of the Napoleonic Era. 1799-1815. Lectures. T., Th., 11. *Boardman, Room B.* Open to those who have had course 14, or its equivalent. Professor MORSE STEPHENS.]

This course, given in 1896-97, will be repeated in 1898-99.

[17. Constitutional History of England. Lectures. Open to those who have had course 13, or its equivalent. T., Th., 12. *Boardman, Room B.* Professor MORSE STEPHENS.]

This course, given in 1896-97, will be repeated in 1898-99.

18. Seminary. For advanced study and research in subjects connected with the history of Europe. The work of the Fall term is designed to give a knowledge of materials and authorities ; of the Winter term is devoted to the critical examination of authorities and the study of the laws of historical evidence ; and of the Spring term deals with the conceptions of jurisprudence and their application to history. Open only to graduates and to seniors who are writing theses in this department. Th., 4-6. *European Historical Seminary.* Professor MORSE STEPHENS.

C. AMERICAN HISTORY.

[Consultation hours : Professor M. C. Tyler, M., W., F., 4, *Botanical Lecture Room.* T., Th., 4, *Morrill, 11.* Mr. Rammekamp, T., Th., 9, *Morrill 11.*

Students intending to take several courses in this department are advised to pursue them, as far as possible, in the order given below.]

21. General History of the Commonwealth of New York, from its

Settlement to the Present. Lectures, topical reports, and examinations on text book. T., Th., 8, *Morrill 11*. Open to all students. Professor M. C. TYLER and Mr. RAMMELKAMP.

22. American History from the Earliest Discovery to the End of the War for Independence. Lectures, topical reports, and examinations on text-book. Open to all students after the freshman year. M., W., F., 3. *Botanical Lecture Room*. Professor M. C. TYLER.

This course and courses 23 and 24 are designed to give a general survey of the entire field of American History, and to prepare for the special study of American Constitutional History, as provided in courses 25 and 26.

[23. American History from the End of the War for Independence to the Year 1840. Lectures and examinations on text-book. M., W., F., 3, *Botanical Lecture Room*. Professor M. C. TYLER]

[24. American History from the Year 1840 to the Present, with especial reference to the political and military Conflict over the Slavery Question. Lectures and examinations on text-book. M., W., F., 3, *Botanical Lecture Room*. Professor M. C. TYLER.

25. American Constitutional History. Lectures, the study of constitutional documents and topical reports. Open only to graduates, to students in the College of Law, and to such undergraduates as have already taken either course 22, 23, or 24. T., Th., 3, *Morrill 11*. Professor M. C. TYLER.

26. Constitutional (and Financial) History of the Commonwealth of New York from its Earliest Settlement. Winter. M., W., 10. *Morrill 12*. Professor HULL.

This course is the same as that announced under Political Economy and Finance as course 61.

27. Junior Seminary. Open to members of the sophomore and junior classes, who are also taking at least one other course in American History. Th., 4, *Morrill 11*. Mr. RAMMELKAMP.

The object of this course is to organize and carry on scientific work in historical research, as a preparation for work in senior year on baccalaureate theses in American History.

28. Senior Seminary. Open only to seniors who have already taken course 27, and who are making their baccalaureate theses in American History. Th., 4, *American History Seminary Room*. Professor M. C. TYLER.

No senior will be accepted for thesis-work in American History who does not do such work as a member of this seminary.

29. American Historical Seminary. Open only to graduates. T., 4. Professor M. C. TYLER.

All candidates for advanced degrees, with either a major or a minor in American History, are members of this seminary, and report their work therein once each week.

II. POLITICAL SCIENCE.

Consultation hours for students as follows: Professor Jenks, M., W., 11, President White Library; Professor Willcox, M., W., 9, Morrill 24a; Professor Hull, M., W., 12, Political Science Seminary.

The general courses in Political Science are 34, 69.

Students who expect to elect several courses in the department are advised to take courses 51 and 34 in their sophomore year, and to elect French or German in their freshman year.

A. POLITICS.

31. Political Institutions. *a.* Nature and historical development of political institutions. *b.* The government of the United States, including local government, studied with especial reference to its practical working. *c.* Comparative study of the governments of Europe, especially those of England, France, Germany, and Switzerland. *d.* Municipal government. M., T., W., 10, Morrill 11. Professor JENKS.

[32. History of Political Ideas. A critical study of leading writers on Politics. Lectures and reports. Professor JENKS. Alternates with course 33.]

33. Modern Questions in International Politics, *e. g.*, The Eastern Question, Egypt, The Partition of Africa. Fall and winter terms. W., 12, Boardman, Room C. Professsr JENKS. Alternates with course 32. [The course in International Law, 37, may be taken in connection with this course.]

34. Introduction to Political Science. Lectures regarding the nature of Politics, Social Science, Economics and Finance and their relations to cognate sciences. Spring term. M., W., F., 9, Boardman, Room B. Professors JENKS, WILLCOX, HULL.

37. International Law. Lectures and collateral reading. Fall and winter terms. M., 12, Boardman, Room C. Professor HUFFCUT.

38. Jurisprudence: History and Evolution of the Law. Winter and spring terms. M., W., 10, Boardman, Room C. Dean FINCH.

39. American Constitutional Law. Fall term. T., Th., 9, Boardman, Room C. Professor POUND.

B. SOCIAL SCIENCE AND STATISTICS.

41. Elementary Social Science. An introductory course upon the nature and methods of social science and upon certain social problems,

such as those connected with the family, with race and immigration, with pauperism and crime. Lectures and reports. T., Th., 9, *Morrill* 12. Associate Professor WILLCOX.

[42. Advanced Social Science. This course is open only to those who have taken the preceding. It consists of a detailed study by the seminary method of some few related problems of social life. In 1898-9 the subject will be a study of the theories upon the evolution of the family and of certain changes now influencing the institution. Readings and reports. Associate Professor WILLCOX].

43. Advanced Social Science (theoretical). This course is given in alternate years with the preceding and is open to those who have had either course 41 or related courses in philosophy. Its aim is to examine the theories, methods and results of the social sciences and especially of sociology. W., 4-6, *Morrill* 24. Associate Professor WILLCOX.

44. Social Statistics. A course in statistical methods and results, with practical work in investigation and tabulation. Especial attention is given to interpreting the social statistics of the United States presented by the Eleventh Census. Lectures. W., F., 9. Laboratory hours to be arranged after the class meets. *Morrill* 24. Associate Professor WILLCOX.

48. Anthropology. An introduction to the methods and conclusions of anthropology and ethnology and their relations to the social sciences. The work will be based on Keane's *Ethnology* with collateral reading. T., Th., 8, *Morrill* 24. Associate Professor WILLCOX.

C. POLITICAL ECONOMY AND FINANCE.

51. Political Economy. Elementary course. Principles of Political Economy. Designed especially for beginners in the department. Fall and winter terms. Lectures. M., 9, *Boardman, Room B.* Professor JENKS. Text book, Bullock's "Introduction to the Study of Economics," with class in four sections. T., W., Th., F., 8, 9, *Morrill* 12. Dr. BULLOCK.

Each member of the class is required to attend the lecture and two recitations each week. It is expected that students will elect with 51 either 34 or 62. Civil engineers are required to take 62. Other students will regularly elect 34.

52. The development of Economic Theories, chiefly in England, to 1848. Reading, abstracts and lectures. Open to those who have passed in 51. T., Th., 11, *Morrill* 11. Assistant Professor HULL.

[53. Recent Economic Theories, American, English, and Continental. Abstracts and lectures. Open to those who have passed in

course 51. T., Th., 11, *Morrill 11*. Assistant Professor HULL. This course alternates with course 52 and will not be given in 1897-98].

54. Money, Credit and Banking. An historical course, with especial reference to the monetary experience of the United States. M., W., F., 11, *Morrill 11*. Assistant Professor HULL.

55. The Wages System and Plans for Social Reform : a. History of systems of labor and proposed reforms in the wage system, such as progressive wages, profit-sharing, and coöperation. b. Historical and critical examination of socialism. T., Th., 12, *Morrill 12*. Dr. BULLOCK.

56. Economic Legislation. Study of current economic problems, especially from the standpoint of practical legislation. Comparative study of legislation in other states and countries, with preparation and discussion of legislative measures. In 1897-8 legislation regarding the monopolies, the tariff, and the banking system will receive special attention. Open to those who have passed in course 51 or its equivalent. M., W., 8, *Morrill 11*. Professor JENKS.

57. The Economic History of England and the United States. Text books, lectures, and collateral reading. No previous training in economics is required. M., W., 12, *Morrill 11*. Dr. BULLOCK.

[58. Philosophy and Political Economy. An historical survey of the relations between philosophical and economic speculation. Bonar's "Philosophy and Political Economy" will be used as a guide to the sources. Reports and discussions. T., Th., 8, *Morrill 24*. Associate Professor WILLCOX.] Alternates with course 48.

59. Finance : Taxation, Financial Administration, Public Debts. Text book, lectures and reports. Open to all who have passed in course 51. Th., F., 10, *Morrill 11*. Assistant Professor HULL.

60. History of Political Economy. Lectures and assigned readings. Fall term. M., W., 10, *Morrill 12*. Assistant Professor HULL.

61. Financial and Constitutional History of the State of New York. Winter term. M., W., 10, *Morrill 12*. Assistant Professor HULL.

62. Transportation. Text book, lectures and reports. Spring term. M., W., F., 9, *Morrill 12*. Assistant Professor HULL.

63. History, Statistics, and Theory of International Trade : a. The study of Bastable, The Theory of International Trade ; Goschen, Theory of the Foreign Exchanges ; Lexis, Handel, in Schönberg's Handbuch. b. The detailed study of the foreign trade of the United States for some brief period. Hours to be arranged. Two hour course. Dr. BULLOCK.

64. Economic Readings in German. This course is designed both to give facility in reading and to introduce members of the class to

economic writings not as yet translated. Open to students who have passed in course 51 and who have a knowledge of German equivalent to courses 1 and 2 in that language. T., 10, *Morrill* 12. Assistant Professor HULL.

68. Lectures by the Department Fellows. Each fellow in the department is expected to give, near the close of the year's work, from one to six lectures in the subject on which he has made his special studies. The lectures for 1896-97 were :

(a) Methods of Keeping the Public Money of the United States. Two lectures. Mr. PHILLIPS.

(b) The Pension System of the United States. One lecture. Mr. GLASSON.

(c) The Conjugal Condition of the People of the United States. Two lectures. Mr. GERLING.

69. Graduate Seminary in Political Science. For graduates engaged in special investigation in Political Science. Questions in Politics, Social Science, Statistics, Economics, Finance may be taken. Also some one subject will probably be investigated by the seminary as a whole, and the fundamental principles of the various social sciences will be discussed. M., 4-6. *Political Science Seminary*. Drs. JENKS, WILLCOX, HULL, and BULLOCK.

Baccalaureate Theses. Seniors who write thesis under the direction of the department will be required to make regular reports to the professor in charge of the thesis. No senior will be accepted for thesis work unless he shall have previously taken the equivalent of eight hours in the President White School of which at least five hours shall have been in this department. He will be required also to elect such collateral work as the professor may direct.

MATHEMATICS AND ASTRONOMY.

PURE MATHEMATICS.

The work in mathematics prescribed for students in Engineering and Architecture, in general, takes one year. It presupposes a good knowledge of plane and solid geometry, of elementary and advanced algebra, and of plane and spherical trigonometry ; and it consists of elementary courses in analytic geometry and the calculus.

For students in Arts and Sciences all work in mathematics is elective, and this work may be roughly divided into elementary courses and advanced courses.

The elementary courses are in solid geometry, elementary and higher algebra, plane and spherical trigonometry, analytic and pro-

jective geometry, including conic sections, differential and integral calculus, and differential equations. These courses may all be taken by a good student, well qualified, during his freshman and sophomore years. They serve as a sufficient preparation for the ordinary work in physics and physical chemistry, and they mark the minimum of attainments that a teacher of mathematics in a high school or academy ought to possess.

The advanced courses are for juniors, seniors, and graduates. Together they would take one's entire time for four or five years; they give a general survey of the field of mathematical science and serve as an introduction to any special field one might wish to cultivate.

The sequence and interdependence of these courses, and the order in which they may best be taken up, are shown in the detailed statement of the courses themselves. In their topical relations they fall into three groups which may be entitled:

1. The theory of discontinuous (discrete) operations.
2. The theory of continuous (differential) operations.
3. The theory of functions.

In the first group may be placed modern analytic geometry, higher plane curves, the geometry of three dimensions including Plücker's line geometry; the theory of numbers, substitution groups, quantics, including the modern algebraic theories of elimination, canonical forms, and their invariants; quaternions and vector analysis; and non-Euclidian geometry.

In the second group are included the calculus, differential equations, differential geometry, finite differences, Fourier's series and spherical harmonics, and probabilities, with applications to insurance and to the theory of errors.

In the third group are included the general theory of functions, with the special theories of elliptic, hyperelliptic, Abelian, and automorphic functions.

ASTRONOMY AND CELESTIAL MECHANICS.

The course in descriptive and physical astronomy, considers the phenomena of the heavenly bodies and their probable conditions and histories. The work in celestial mechanics deals mainly with the figures of the planets, the tides, the elliptic motion, and perturbations.

Practical astronomy is taught by the College of Civil Engineering.

MATHEMATICAL PHYSICS.

The subjects offered in this connection fall into two main groups:

In the first group are the calculus, differential equations, probabilities and the theory of errors, vector analysis, and function-theory. These have already been mentioned under pure mathematics ; but they are necessary, as introductions to most of the subjects in the second group, and they are important in themselves to the student of physics, much of whose work without their aid would be too purely empirical, no less than to the student of pure mathematics, whose outlook is enlarged by the physical concepts and interpretations involved. Most of the courses in this group are open to any good student who has had the elementary courses named above.

The second group consists of (1), two general introductory courses : one in theoretical mechanics with special reference to the dynamical principles needed for the subsequent work, and the other in Fourier's series and spherical harmonics, in which various typical physical problems are treated, the appropriate differential equations being derived from physical laws, and the most important solutions of these equations discussed ; (2), the mathematical theories of definite branches of physics, such as sound, including the general vibrating system, with Rayleigh's treatise as the basis ; hydrodynamics, including mechanics of the atmosphere and vortex-motion ; electricity and magnetism ; theories that have all been extensively developed by aid of the higher analysis.

Courses in light and thermodynamics are given by the Department of Physics, and courses in electricity and magnetism less mathematical in character than course 46.

ESSAYS, FACILITIES, CLUB.

In addition to the courses of instruction definitely announced, special reading in pure and applied mathematics is assigned to advanced students desiring it ; provision is made for the writing and criticism of mathematical essays, and students are encouraged to follow up special inquiries by aid of the University Library, which now contains several thousand volumes on pure mathematics, mathematical physics, and astronomy, including many of the principal mathematical journals, and transactions of scientific societies.

A collection of models has been begun, which will be useful in the study of surfaces, of functions, of lines and systems in space, and of hyper-geometry.

The Oliver Mathematical Club, composed of teachers and advanced students, has for its objects : the systematic presentation by the members, in turn, of some specified mathematical theory of recent development ; and the hearing of reports from different members on note-

worthy articles in current journals, and on the results of special reading and investigation.

The following schedule of hours is made out as nearly as possible, for the coming year; but necessary changes will be made at any time.

I. ELEMENTARY COURSES PRESCRIBED FOR STUDENTS IN ENGINEERING AND ARCHITECTURE, AND OPEN TO ELECTION BY STUDENTS IN ARTS AND SCIENCES.

1. For Freshmen in Civil Engineering.

Two sections, daily ex. Sat. 8; *White 13*. DR. SNYDER; *White 17*, DR. HUTCHINSON.

(a) Fall Term, Advanced Algebra.

(b) Winter Term, Plane and Spherical Trigonometry.

(c) Spring Term, Analytic Geometry.

2. For Freshmen in Mechanical and Electrical Engineering.

Six sections, daily ex. Sat. 10, *White 22*, Professor WAIT; *White 18*, Assistant Professor MCMAHON; *White 24*, Dr. MURRAY; *11*, *White 18 A*, Assistant Professor TANNER; *White 17*, Dr. HUTCHINSON; *White 21*, Dr. SNYDER.

(a) Fall Term, Analytic Geometry.

(b) Winter Term, Differential Calculus.

(c) Spring Term, Integral Calculus.

3. For Freshmen in Architecture.

M., W., F., 8; *White 18 A*, Assistant Professor TANNER.

(a) Fall Term, Analytic Geometry.

(b) Winter Term, Differential Calculus.

(c) Spring Term, Integral Calculus.

4. For sophomores in Civil Engineering.

Two sections daily ex. Sat. 8; *White 22*, Professor WAIT; *White 24*, Dr. MURRAY.

(a) Fall Term, Differential Calculus.

(b) Winter Term, Integral Calculus.

II. ELEMENTARY COURSES, OPEN TO FRESHMEN AND SOPHOMORES IN ARTS AND SCIENCES.

6. For Freshmen who enter the University on the elementary requirements in mathematics (plane geometry and elementary algebra). This course is substantially equivalent to the advanced entrance requirements in mathematics, and it is sufficient for elementary work in physics. M., W., F., 8, *White 21*, Professor JONES.

- (a) Fall Term, Solid Geometry.
- (b) Winter Term, Advanced Algebra.
- (c) Spring Term, Plane Trigonometry.

7. For Freshmen who enter on the advanced requirements (solid geometry, advanced algebra, and plane and spherical trigonometry). Supplementary to those requirements and necessary to further elective work in mathematics. T., Th., 8, *White 21*, Professor JONES.

- (a) Fall Term, Solid Geometry.
- (b) Winter Term, Advanced Algebra.
- (c) Spring Term, Plane and Spherical Trigonometry.

8. For Freshmen who enter on the elementary requirements. Equivalent to courses 6 and 7 combined. Daily ex. Sat. 9. *White 21*, Professor JONES.

- (a) Fall Term, Solid Geometry.
- (b) Winter Term, Advanced Algebra.
- (c) Spring Term, Plane and Spherical Trigonometry.

9. Problems in Geometry, Algebra, and Trigonometry. Supplementary to courses 7 and 8, and may be taken at the same time with either of those courses. This course is for the benefit of those students, particularly freshmen, who, being interested in mathematical studies, wish to lay a good foundation for the higher work that follows. The problems in geometry occupy the fall term; those in algebra the winter term; and those in trigonometry the spring term. Two hours. Sat., 8-10, *White 21*, Professor JONES.

10. Analytic Geometry and Calculus. For sophomores who have had courses 7 and 8, but may be taken by freshmen who are well qualified, at the same time with course 7. M., W., F., 8. *White 18*, Assistant Professor MCMAHON.

11. Differential Equations. An elementary course for engineers and others who may desire a shorter course than 21. Requires courses 2 or 10. Spring term, M., W., F., 8. *White 24*, Dr. MURRAY.

12. Higher Algebra and Trigonometry. A continuation of courses 7 and 8. It covers continued fractions, limits and derivatives, imaginaries, series, theory of equations, and applications of imaginaries and exponentials to circular and hyperbolic trigonometry. Necessary for most of the courses that follow. T., Th., S., 10. *White 21*, Professor JONES.

13. Modern Synthetic Geometry, including Projective Geometry. Requires courses 7 or 8, and preferably some knowledge of Analytic Geometry; necessary to courses 19, 20, 23, 32, 33, and very useful in courses 15, 16, 41, 43, and in certain problems in mathematical drawing. T., Th., S., 8. *White 18 A*, Assistant Professor TANNER.

III. ADVANCED COURSES, OPEN TO JUNIORS, SENIORS, AND GRADUATES.

For these courses, hours will be arranged to suit the members of the classes. In some cases the courses stated as necessary in a given course may be taken at the same time with it. A course may not be given if not more than two persons call for it.

14. Mathematical Readings in German. Vol. I of Weber's Algebra will be the first book used; other books will be selected as they are needed. Requires courses 2 or 10, and 12. Two hours. Assistant Professor TANNER.

15. Advanced Work in Analytic Geometry. Requires courses 2 or 10, 12, and preferably 13. Necessary in most of the courses that follow. Professor WAIT.

(a) Lines of the first and second orders. Based on Salmon's Conic Sections. Three hours.

(b) Surfaces of the first and second orders. Based on Aldis' Solid Geometry and Salmon's Geometry of Three Dimensions. Two hours.

16. Binary Quantics. Based on Elliott. Requires courses 12 and 13. Necessary in courses 19, 20, 25, 29, 32, 33; and useful in courses 17, 18, 21, 23. Two hours. Assistant Professor TANNER.

17. Advanced Work in Calculus. Requires courses 2 or 10, 12, and preferably 16. Necessary to nearly all the courses that follow.

(a) Differential Calculus. Three hours. Professor WAIT.

(b) Integral Calculus. Two hours. Dr. HUTCHINSON.

[18. Theory of Substitution-Groups. Includes a detailed study of some of the best known groups of operations; the importance of the group concept being further shown by the application of Galois' methods to the theory of equations. Requires course 12, and preferably 16. Two hours.

19. General Theory of Algebraic Curves and Surfaces. Requires courses 12, 13, 15, 17, and preferably 16. Necessary to courses 20, 25, 32, 33, and preferably to all the courses that follow. Assistant Professor McMAHON.

(a) Higher Plane Curves. Two hours.

(b) Curves and surfaces. Two hours.

[20. Ternary and General Quantics; with application to curves and surfaces. Requires courses 16, 19. Two hours.]

21. Differential Equations. Requires courses 17, and preferably 15 and 19. Necessary to all the courses that follow; and particularly useful in mathematical physics. Three hours. Dr. MURRAY.

22. Finite Differences, Factorials, and Difference Equations; with

applications to practical computation. Requires course 21. Two hours. Dr. MURRAY.

[23. Lie's Theory of Continuous Groups. Requires courses 15, 17, 21, and preferably 16 and 19. Useful in course 25. Two hours.]

24. A miscellaneous course. One hour. Professor WAIT.

25. Theory of Functions. Requires courses 12, 17, 19, 21, and preferably 16 and 23. Useful in all the courses that follow.

(a) First year. General Function-theory. Based on Forsyth. Three hours. Dr. SNYDER.

(b) Second year. Elliptic, hyperelliptic, and Abelian functions. Three hours. Dr. HUTCHINSON.

[29. Theory of Numbers. Includes Theory of congruences, quadratic residues, quadratic forms and cyclotomic numbers. Based on the works of Dirichlet, Dedekind, and Bachmann. Two hours. Requires courses 12, and preferably 16, 17, 18.]

30. Quaternions and Vector Analysis. Requires courses 12, 17, and something of determinants and mechanics. Two hours. Assistant Professor MCMAHON.

31. Theory of Probabilities and Least Squares ; with some application to insurance and the theory of errors. Requires course 2 or 10, and preferably 17. Two hours. Professor JONES.

[32. Non-Euclidian Geometry. Requires courses 12, 13, 15, 17, 19, 25(a). Two hours.]

33. Line Geometry (*Géométrie Réglée*). Requires courses 13, 15, 16, 17, 21, and preferably 19. Two hours. Dr. SNYDER.

ASTRONOMY AND MATHEMATICAL PHYSICS.

40. Descriptive and Theoretical Astronomy. Dr. MURRAY.

(a) Descriptive Astronomy. Two hours.

(b) Physical and Mathematical Astronomy. Requires courses 2 or 10, and courses 1 or 2 of physics. Two hours.

41. Theoretical Mechanics. Includes kinematics, statics, and kinetics (or dynamics). Requires courses 11 (or preferably 21), 12, 15, 17. Necessary to all the courses that follow. Two hours. Assistant Professor TANNER.

42. Fourier's Series and Spherical Harmonics ; with applications to physical problems. Introductory to mathematical physics. Requires courses 17, 21, 41. Necessary to all the courses that follow. Two hours. Assistant Professor MCMAHON.

[43. Celestial Mechanics. Requires courses 12, 17, 21, 40, 41, and preferably 42. Two hours.]

44. Mathematical Theory of Sound ; including the general theory

of vibrating systems. Based on Rayleigh's treatise. Requires courses 12, 17, 21, 41, 42, and preferably 15, 16, 25(a). Two hours for two years. Assistant Professor MCMAHON.

[45. Mathematical Theory of Fluid Motion; including the mechanics of the atmosphere and vortex motion. Allied to course 44, and has the same prerequisites.]

[46. Mathematical Theory of Electricity and Magnetism. Requires courses 12, 17, 21, 42, and preferably 15, 16, 25(a). Two hours.]

Other courses in Mathematical Physics are given by the Department of Physics.

THE OLIVER MATHEMATICAL CLUB.

The Club is composed of teachers and advanced students. It meets weekly. In 1897-8 readings from Picard (*Traité d'Analyse*) and from Tannery (*Introduction à la théorie des fonctions d'une variable*) will be presented by the members in turn every other week.

At the other meetings, reports will be presented on current journals, and on the results of special investigations.

PHYSICS.

Lecture Courses in Elementary Physics.—The instruction in the elements of physics is by means of lectures given twice a week throughout the year. In these lectures the general laws of mechanics and heat, electricity and magnetism, and acoustics and optics, are presented. The very large collection of lecture room apparatus possessed by the department makes it possible to give experimental demonstrations of all important phenomena. The course of lectures is supplemented by recitations, for which purpose the class is divided into sections of about twenty members each.

Three courses are given, which consist respectively of two, four, and five exercises a week. The ground covered in these courses is essentially the same, but the method of treatment differ, being adapted in each case to the needs and previous training of the class of students for which the course is designed. The successful completion of the freshman mathematics is in all cases requisite for admission to these courses.

Courses of Laboratory Instruction.—The first year of laboratory work is devoted to the experimental verification of physical formulæ, to practice in the use of instruments of precision and to the attainment of some knowledge of the simpler methods of physical manipulation. Advanced students make a more extended study of various physical constants. They learn the use of standard instruments,

make electrical and magnetic determinations in absolute measure, test the efficiency and determine the characteristics of dynamo machines. The opportunities afforded for advanced work in electricity are unusual.

Every encouragement is offered to advanced students for the carrying on of original investigations, and every opportunity is taken to stimulate a spirit of scientific inquiry. Courses of reading are suggested to such students, in connection with their experimental work; and they are brought together in seminary at frequent intervals for the discussion of topics of scientific interest. Several courses in mathematical physics are given for the benefit of such students. It is the aim of the department to furnish every possible facility for research.

The Laboratory of Physics.—Franklin Hall is devoted exclusively to the use of the Department of Physics. It is of red sandstone, and is three stories in height above a well lighted basement. The building contains, in addition to the amply equipped laboratories of the department, a lecture room, seating about two hundred students, and four recitation rooms for the use of classes. Piers are provided in several of the rooms for apparatus requiring immovable support, and some of the rooms in the basement and in the annex have solid floors of cement, upon any part of which galvanometers, etc., may be used. The arrangements for experimental work are most complete. Gas, water, steam, oxygen, hydrogen, compressed air, blast and vacuum cocks are within easy reach, and dynamo and battery currents are available. A masonry pier, four by twelve feet, permits the use in the lecture room of apparatus that could otherwise only be used in the laboratory. A small turbine on the lecture-table furnishes power for a variety of experiments. Lanterns with the lime or electric light are always in readiness for use when they can in any way aid a demonstration. Adjacent to the lecture-room are three large apparatus rooms.

The laboratory rooms in the lower portions of the main building are devoted to advanced work, those on the upper floors of the west end to elementary practice. On the fourth floor is a suite of rooms arranged for the study of photography, with special reference to its application to physical investigation. Work in applied electricity is carried on chiefly in the basement laboratories, in the annex, and in the dynamo rooms of the department.

The equipment of the Department of Physics comprises many fine instruments of precision. For magnetic and other measurements by the magnetic needle, a special building free from iron has been erected. In this are placed the magnetometers and the instruments

for the accurate measurement of current and potentials. Among the latter is the large tangent galvanometer, constructed at the University, with coils, respectively one and six-tenths and two meters in diameter, and giving deflections to ten seconds. A very valuable adjunct is a well equipped workshop connected with the department, where a skillful mechanic is constantly employed in making apparatus. Some of the most valuable instruments in the collection have been made in this shop. A further statement of equipment available for the use of the department will be found under the heading *laboratories of electrical engineering*.

The following courses are offered in 1897-98 :

UNDERGRADUATE COURSES.

1. Mechanics and heat. Electricity and Magnetism. Acoustics and Optics. Four hours a week. [Two lectures a week. M., W., or T., Th., 12. Professor NICHOLS. Two recitations by the class in sections, at hours to be arranged.] Messrs. HOTCHKISS, TIMMERMAN, SHARP, STEWART, and HOXIE.

Course 1 is intended to meet the needs of students in Civil Engineering, Electrical Engineering, Mechanical Engineering, Architecture, and of such others as have the requisite mathematical preparation. An elementary knowledge of the calculus is required.

2a. Short elective course in Experimental Physics. Two hours, lectures. M., W., or T., Th., at 12, Professor NICHOLS.

Course 2a is offered for the benefit of students who do not intend to pursue the subject further nor to devote especial attention to the sciences of Mathematics, Chemistry or Geology, but who desire to acquire some knowledge of the simpler phenomena of Physics. It is accepted as the required work in the course in Agriculture and in the course preparatory to Medicine, but students in those courses are urged, whenever practicable, to substitute course 2b. Course 2a is not open to freshmen, excepting in those cases where advanced mathematics has been presented for entrance to the University.

The completion of this course does not qualify the student to enter course 3 or any subsequent course in Physics.

2b. Longer course in Experimental Physics. Two lectures a week. M., W., or T., Th., 12. Professor NICHOLS; two recitations a week and one afternoon in the laboratory, Mr. ROGERS. Course 2b is intended for students electing physics and who desire to gain an adequate knowledge of the elements of the subject. It should be chosen in preference to course 2a by all who wish to prepare for any of the more advanced courses in Physics or who intend to study

Mathematics, Chemistry, Geology, or the Biological Sciences. The lectures are the same as in course 1. Students of whom course 1 is required may substitute course 2b by registering for 5 hours. A knowledge of plane trigonometry is required.

3. Physical experiments. Theory and methods of physical measurements. Two to six hours. The laboratory will be open M., W., Th., F., 2 to 5; T., 9 to 5 and S., 9 to 1. Messrs. ROGERS, SHEARER, STEWART, and HOXIE.

Course 3 includes laboratory experiments illustrating general laws in all branches of Physics, and instruction in the adjustment and use of the instruments of precision employed in mechanics, heat, light and electricity. It is open to students who have passed satisfactorily in courses 1 or 2b. All students desiring this course are strongly advised to prepare themselves by first taking courses in analytical geometry and calculus. Each student usually devotes to the course two afternoons each week, and pursues it in such order as the appointments of the laboratory may require. Students in Mechanical Engineering and Electrical Engineering are required to take the equivalent of two hours a week only.

4. Electrical Measurements. Tests of electrical instruments, and determination of constants. Theory and experimental study of dynamo machines, including tests of efficiency. Alternating currents. Photometric and electrical tests of electric lamps. Four hours, laboratory work. Daily, 9-5. Assistant Professors MOLER and BEDELL, and Messrs. HOTCHKISS and TIMMERMAN.

Course 4 is open to all students who have completed course 3. Taken together with course 8, it forms a part of the prescribed work of the senior year in Electrical Engineering.

5. A shorter course in Heat and Applied Electricity for students in Mechanical Engineering. Two hours, laboratory work, daily, 9-5. Assistant Professor MOLER and Mr. TIMMERMAN.

Students taking course 5 are advised to attend the lectures announced under course 8.

6. Advanced laboratory practice in general Physics for undergraduates who have completed course 3. This course is preparatory to graduate courses, 18, 19, 20. It is intended to meet the wants of those who expect to teach experimental physics, and may occupy from three to six hours per week. Professors NICHOLS and MERRITT.

Students in course 6 are expected to devote at least a term to a single problem, studying the literature of the subject exhaustively and performing the experimental work with all the care and thoroughness of an original research.

8. Theory of the Galvanometer, (Autumn). Application of photometry to electric lighting, (Winter). Theory of the telephone, (Spring), Professor NICHOLS. One hour, lectures, F., 12.

9. Practical Photography, counting two hours. One lecture a week with laboratory practice, during the Spring term. Professor MOLER and Messrs. HOTCHKISS and SHARP.

Course 9 is open only to students who have the requisite knowledge of chemistry and physics. The requisite knowledge of these subjects is in general that possessed by those who have completed Chemistry Course 1 and two terms of Physics 1, 2a or 2b. Freshmen are therefore not eligible to elect this course.

COURSES FOR GRADUATE STUDENTS.

10. Thermodynamics (based upon Clausius). Two hours. Mr. ROGERS.

11a. Theoretical Physics. Mechanics and Thermodynamics. Professor MERRITT. Three hours lectures and one hour seminary throughout the year. [1897-98.]

11b. Theoretical Physics. Electricity and Magnetism. Professor MERRITT. Three hours lectures and one hour seminary throughout the year. [1898-99.]

Courses 11a and 11b, together with course 14, are intended to give an outline of theoretical physics for students who expect to specialize in this subject.

12. Recent advances in experimental physics. Professor MERRITT. One lecture a week. F., 9 or 10. This course will be devoted to such of the more important developments in physics as have not yet found their way into the text books. The lectures will be illustrated by experiments whenever the nature of the subject permits.

13. Electricity and Magnetism. Professor MERRITT. Lectures and seminary. For advanced students who have completed course 11b or its equivalent. This course is capable of modification to suit the needs of those electing it. Some treatise such as Boltzman, Maxwell, or J. J. Thomson will be used as a basis.

14. Theory of light. Four hours. Mr. SHEARER. Three recitations per week based on Preston's Theory of Light. One experimental lecture per week by members of the class under the direction of the instructor.

15. Wave motion. Two hours. Lectures on the theory of wave motion in optics, electricity, etc., with problems suited to the requirements of the class. Mr. SHEARER.

16. Advanced Photography, with especial reference to its applica-

tion to research. Two hours. Fall and Winter, Professor MOLER.

Students who have completed courses 1 or 2, 3 and 9, or an equivalent, will be admitted to this class.

17. Physics Seminary. Two hours. Critical reading of original memoirs relating to physics; followed in the spring term by reports upon original work done in the department. Tuesday evenings, 7:30 to 9:30. Professor NICHOLS.

Course 17 is a colloquium in which all members of the teaching staff of the department, as well as graduate students of physics, take an active part.

18. Absolute measurements in Electricity and Magnetism. Three hours. Laboratory practice in the determination of current, electromotive force, resistance, electric capacity and the magnetic elements in absolute measure. Professors NICHOLS and BEDELL.

18a. Alternating Current Measurement. Three hours throughout the year: one hour lecture and two hours laboratory practice. (Requires course 22.) This course may be substituted for equivalent hours in course 4. Professor BEDELL.

19. Thermometry and Calorimetry. Three hours. Laboratory practice, including the study of the thermometer as an instrument of precision, methods of measuring temperatures and thermal capacities, influence of temperature upon various physical constants. Professors NICHOLS and MERRITT.

20. Advanced Spectroscopy. Three hours. Laboratory practice, devoted to the use of the spectrometer and spectrophotometer. Professors NICHOLS and MERRITT.

21. Magnetism of Iron. Spring term only. One hour. This course is intended particularly for students in Electrical Engineering, junior or senior, but is open to students in other courses.

22. Theory of Alternating Currents. Fall and winter terms. Two hours. Professor BEDELL.

23. Magnetism and Electricity. Winter and Spring terms. Two hours. Special reading and seminary work for those taking course 22. Professor BEDELL.

24. Theory of the Dynamo and Motor, and allied topics of interest to electro technical students. Two hours. Fall and Winter. Mr. TIMMERMAN.

CHEMISTRY.

Thirty-nine courses of instruction are given in this department.

Inorganic Chemistry.—The elements of inorganic chemistry are taught by recitations from the text-book, and by lectures and labora-

tory work. Careful attention is required to the writing of chemical equations, and the solution of chemical problems. In the laboratory, experiments illustrating the principles discussed in the text-books are performed by each student.

Advanced courses of lectures, both with and without laboratory practice, are given for students intending to specialize in chemistry, but are open to all who have completed certain earlier chemical courses. In these lectures prominence is given to the history of chemistry and to the study of the elements on the basis of their classification according to the periodic law. For the special student ample opportunity is afforded for advanced study, and research in inorganic chemistry.

Organic Chemistry.—The general subject of organic chemistry is taught by a course of lectures, recitations, and laboratory work, extending through one year. The theoretical basis of the study is made as thorough as possible, while the full illustration of the lectures by specimens, and constant laboratory practice in the preparation and purification of typical compounds, prevent the study from becoming an abstract exercise of memory. On the completion of the first year, the subject of organic chemistry is continued by a course of lectures on special chapters of the subject, and by further laboratory work in the preparation of specimens for the museum, and in following out reactions of particular interest, in the course of which constant reference is made to papers published in the leading American, French, and German periodicals. As soon as the necessary proficiency in manipulation and theoretical knowledge is attained, the student is given every encouragement to devote himself to original investigation, for which organic chemistry offers a promising field.

Physical Chemistry.—The lectures in physical chemistry are divided into two groups, those which do not presuppose a knowledge of advanced mathematics and those which do.

The aim of the first group of courses is to give the student a complete knowledge of the experimental data upon which the generalizations depend. One of these introductory courses deals with the qualitative phenomena of equilibrium and shows the applications of the Phase Rule and the Theorem of LeChatelier. The other takes up the quantitative side of the subject, laying stress upon the Mass Law and the Theorem of van't Hoff as the two fundamental principles of qualitative theoretical chemistry.

In the courses presupposing some mathematical knowledge, special stress is laid upon the theoretical development of the subject, the experimental data being referred to only in so far as they are necessary

to an understanding of the principles involved. In one course the subject is treated deductively, the requisite mathematical methods being employed for the development of a connected theory of chemical changes and a complete description of the states of equilibrium to which they lead. In the other, the historical development of the subject is considered chiefly with reference to the parts played by individual men.

In addition to these lectures on physical chemistry there is a course on the special subject of electrochemistry. These courses of instruction are supplemented by laboratory training in methods and manipulation, while every facility for original research is offered in a laboratory especially equipped for this purpose.

Agricultural Chemistry.—A course of lectures on this subject, extending through the year, treats of the chemistry of the plant and its growth, of the atmosphere, soil, fertilizers, and the feeding of farm crops and animals, and the composition and utilization of the products of the farm. An advanced course, partaking also in part of the nature of a seminary, is given on current topics in the journals, besides the very elementary series of lectures required for the winter course students.

Seminaries.—All advanced students specially interested in any of these branches of the science meet with the various professors, at stated times, for the discussion of special topics suggested by recent chemical literature or otherwise.

Qualitative and Quantitative Analysis.—Two beginning courses are given in chemical analysis, each extending through one year, one as required of students in mechanical and electrical engineering, occupying seven and a half hours per week of actual practice; the other required of all students specializing in chemistry and of other students in science electing this work occupies ten hours per week of actual practice. The quantitative work is begun after the qualitative course is completed, at the beginning of the spring term, and comprises a small number of simple gravimetric, volumetric, and electrolytic determinations, together with the study of the chemistry of the operations involved.

This work in the laboratory is supplemented by lectures and recitations, the latter including practice in writing chemical equations explanatory of the actual operations of the analytical work. Beyond this the work of each student is adapted to the particular purpose for which it is taken, thorough practice, in their respective fields, being offered to students of agricultural, engineering, medical, pharmaceutical, and sanitary chemistry.

Advanced Quantitative Analysis. For students intending to devote themselves chiefly to the study of chemistry there is provided an extended course in quantitative analysis especially designed to give them as wide an acquaintance as possible with analytical manipulation. This work comprises the determination of the more important elements; the analysis of ores, minerals, and alloys; the detection and determination of poisons; analysis by electrolysis; gas analysis; and practice in the use of the polariscope, spectroscope, and refractometer. To these students occasional lectures may be given on the recent literature of chemical analysis; and readings are held in German and French chemical journals for the purpose of giving such a familiarity with technical phraseology that the abundant and important literature of the subject in these languages can be consulted with facility.

Assaying.—To students who have studied quantitative analysis there is offered a short course in assaying, in which practice is given in the sampling and assay of ores of lead, silver, and gold, and in the assay of gold and silver bullion. A special laboratory is provided for this work, and is fully equipped with all necessary furnaces and tools.

THE CHEMICAL BUILDING contains two lecture-rooms, one seating three hundred and fifty, and the other eighty students. Both rooms are supplied with all the necessary appliances for the illustration of the lectures, by experiments and by the lantern.

On the first floor is the general quantitative laboratory with places for one hundred and forty students, besides twelve special places for analysis by electrolysis. Adjoining this room are the balance room for students, and the private laboratory of the instructor in quantitative analysis; next follow the general supply room for all departments of the laboratory; the office and private laboratory of the head of the department, and professor of general and of agricultural chemistry, the women's cloak room, the chemical library, the combustion and muffle room, a research laboratory, the sanitary laboratory and distilling room with places for ten students, and a small bacteriological laboratory, the room for analysis by optical methods, the smaller lecture room, and the private laboratory of the associate professor of analytical chemistry.

On the second floor, besides the large lecture room, there is a laboratory for the work of beginners in general chemistry, with three hundred and twenty-four places, and adjoining this the private laboratory of the instructor in that course; on this floor are also the office and laboratory of the assistant professor of general chemistry and of physical chemistry, apparatus and preparation rooms in connection with

the lecture room, and finally, the chemical museum which contains collections for the illustration of lectures upon general, organic and applied chemistry. These collections include specimens of the elements, their compounds, and the ores from which they are obtained, a full series of typical organic compounds, and also specimens illustrating the leading chemical industries, such as the manufacture of the various acids, alkalies and salts, pigments, glass, pottery, soap and stearine, the chemical processes of bleaching, and dyeing, and photography.

On the basement floor is the laboratory for qualitative analysis, accommodating easily one hundred and eighty-four students, but having places for two hundred and fifty-six, if crowding should be necessary. On this floor are also the private laboratory of the instructor in qualitative analysis, the laboratory of the agricultural experiment station, and two rooms with northern exposure for gas analysis. In the eastern section of the building on this floor the organic laboratory is located, with places for twenty-four students, a combustion room, an additional room for advanced inorganic and organic work, and the private laboratory of the assistant professor of organic chemistry.

In a sub-basement is ample space for a cool, fire-proof room, and other store rooms for chemical stock in bulk; in the attic story are rooms for photographic work, and an electric motor and fan for ventilating the three large laboratories.

Distilled water is conducted in block tin pipe to all the more important rooms on each floor, from a tin-lined tank in the uppermost story where the distilling apparatus is placed. Every student's place is furnished with all the essential apparatus for his general work and with water and gas, and with suction in the quantitative and organic laboratories; oxygen, hydrogen, and air-blast are supplied whenever required, from reservoirs in the basement. The oxygen and hydrogen are made by the electrolytic decomposition of water by means of a dynamo current, the gases being collected in tanks of about fifty cubic feet capacity, and thence piped to the various rooms of the building.

THE CHEMICAL LIBRARY contains complete sets of all the important journals, and is very fully supplied with works of reference and the standard books on chemistry and allied subjects. Such additions are made to it from year to year as are necessary to keep it abreast of the times. It is accessible to all students, under such restrictions only as are necessary to secure it against injury or loss.

Bracketed courses are not given in 1897-8.

REQUIRED COURSES.

1. General Inorganic Chemistry, elementary, as follows, all the subdivisions of the work being required :

a. Lecture. Two sections. T., Th., 12, *Ch. L. R. 1.* Professor CALDWELL and Assistant SMITH.

b. Recitation. In sections, as assigned. Assistant Professor TREVOR, Instructor KORTRIGHT, and Assistants TAYLOR and SNELL.

c. Laboratory practice. One hour (two and one-half hours actual practice), in sections, as assigned. Assistant Professor TREVOR, Instructor KORTRIGHT, and Assistants TAYLOR and SNELL.

2. Qualitative Analysis. Elementary Course. Three hours. Fall and winter. Required of students in the mechanical and electrical engineering course, and in the medical preparatory course. Associate Professor DENNIS, Instructor SMITH, Assistant KNOX, and Instructor WHITTELEY.

Lectures and recitations, in sections, by appointment. Laboratory work in sections as arranged for Sibley College Sophomores. Instructor SMITH.

Course 2 is open only to those who have taken course 1.

3. Quantitative Analysis. Elementary Course. Three hours. Spring. Associate Professor DENNIS, Instructor CUSHMAN, Assistant KNOX, and Instructor WHITTELEY.

Lectures and recitations, in sections, by appointment. Instructor CUSHMAN.

Course 3 must be preceded by course 2, and is required of students in the courses mentioned above.

The qualitative and quantitative laboratories are open from 8 to 6, except on Saturday, when they are closed at 1 o'clock. Instruction hours are from 8:30 to 1, and 2:30 to 5:30.

ELECTIVE COURSES.

Analytical Chemistry.

5. Qualitative Analysis. Five hours. Fall and winter. Students in science are advised, and those specializing in chemistry are required, to take this course, instead of the qualitative analysis of course 2. Associate Professor DENNIS, Instructor SMITH, Assistant KNOX, and Instructor WHITTELEY.

Recitations. T., F., 2:30. Lecture. S., 10. *Ch. L. R. 2.* Instructor SMITH.

This course is open only to those who have had course 1.

6. Quantitative Analysis, elementary, for those who have had course 5. Five hours. Spring. Associate Professor DENNIS, Instructor CUSHMAN, Assistant KNOX, and Instructor WHITTELSEY.

Lectures and recitations. T., 2:30, S., 10, *Ch. L. R. 2*. Instructor CUSHMAN.

7. Quantitative Analysis, advanced course; in inorganic, organic, technical, sanitary, and agricultural work. Open only to those who have had courses in qualitative and elementary quantitative analysis. Professor CALDWELL, Associate Professor DENNIS, Instructor CUSHMAN, and Assistant SMITH.

8. Assaying. Three hours. Spring. One lecture and two hours of laboratory work. Instructor SMITH.

9. Qualitative and Quantitative Gas Analysis. Lectures. Winter. T., Th., 11, *Ch. L. R. 2*. Associate Professor DENNIS.

10. Technical Gas Analysis, comprising analysis of air, furnace gases, illuminating gas, generator gas, etc. Laboratory work three afternoons per week, by appointment. Winter. Associate Professor DENNIS and Assistant BENEDICT.

Courses 9 and 10 are open only to those who have had or are taking elementary quantitative analysis.

12. Spectroscopic Chemical Analysis and Colorimetry. Lectures. Fall. T., 11, *Ch. L. R. 2*. Laboratory practice two afternoons per week, by appointment. Associate Professor DENNIS and Assistant BENEDICT.

Agricultural Chemistry.

15. Agricultural Chemistry, elementary course, for students in the special short course in Agriculture. Winter. T., Th., 9. *Ch. L. R. 2*. Professor CALDWELL.

16. Agricultural Chemistry, general course. M., W., F., S., 9, *Ch. L. R. 2*. Professor CALDWELL.

17. Agricultural Chemistry; readings from journals. For those only who have had course 16. One hour per week, by appointment. *Ch. L. R. 2*. Professor CALDWELL.

*Organic Chemistry.**

20. Organic Chemistry. Lectures and recitations. M., W., F., 9, *Ch. L. R. 1*. Instructor MORTON.

21. Organic Chemistry. Laboratory work. Three hours. Instructor MORTON.

*The Assistant Professor of Organic Chemistry is absent on leave during 1897-98.

Courses 20 and 21 are required of all students specializing in chemistry; but course 20 may be taken separately by others, by special permission granted in each case. These courses are open only to those who have had courses 1, 2 and 3.

22a. Organic Chemistry. Elementary course, preparatory to course 45. Fall. T., Th., 4:30, *Ch. L. R. 1*. Instructor MORTON.

22b. Special Chapters in Organic Chemistry. Lectures. T., Th., 9, *Ch. L. R. 1*. Instructor MORTON.

This course is open to those who have had course 20.

23. Advanced Organic Chemistry. Laboratory work. Instructor MORTON.

24a. The Coal Tar Dye stuffs. Lectures. Fall and winter. S., 12, *Ch. L. R. 1*. Instructor MORTON.

24b. Stereochemistry. Lectures. Spring. S., 12, *Ch. L. R. 1*. Instructor MORTON.

24c. Seminary in Organic Chemistry. Critical review and discussions of current theories and assigned topics. One hour per week, by appointment. Instructor MORTON.

The laboratory and instruction hours of the laboratory of organic chemistry are the same as those of the laboratories of qualitative and quantitative analysis.

Inorganic Chemistry.

[25. History of Chemistry. For all students intending to specialize in chemistry, and open only to those who have completed courses 1, 5, and 6, and have taken or are taking course 20. M., W., F., 11, *Ch. L. R. 2*. Professor CALDWELL.]

26. Inorganic Chemistry, advanced course. Open only to those who have completed courses 1, 5, 6, and 20. Lectures. M., W., F., 11, *Ch. L. R. 2*. Associate Professor DENNIS.

27. Inorganic Chemistry. Laboratory practice, by appointment. Associate Professor DENNIS.

Course 27 is designed to accompany course 26, but either course may be taken separately.

28. Advanced Inorganic Chemistry. Seminary for graduate students. One hour per week, by appointment. Associate Professor DENNIS.

Physical Chemistry.

30. Qualitative Physical Chemistry. Lectures. T., Th., 10, *Ch. L. R. 1*. A comprehensive qualitative treatment of all types of chemical equilibrium as classified by the Phase Rule of Gibbs. It is desirable

that the course be accompanied by laboratory practice (course 38), one hour per week. Open to those who have completed course 1. Assistant Professor BANCROFT.

31. Quantitative Physical Chemistry. Lectures. M., W., F., 10, *Ch. L. R. 1*. Non-mathematical exposition of the law of mass action, the velocities of reactions, and the more striking phenomena of electrochemistry; supplementary to course 30. It is desirable that the course be accompanied by laboratory practice (course 38), at least two hours per week. Open to those who have had or are taking course 20. Assistant Professor BANCROFT.

32. Mathematical Chemistry, I. Lectures. M., W., F., 12, *Ch. L. R. 1*. The mathematical theory of chemical equilibrium, of the velocities of reactions and of electrochemistry; historically treated and profusely illustrated by lantern views. Open to those who have completed introductory courses in general chemistry, in physics and in calculus. Assistant Professor TREVOR.

[33. Mathematical Chemistry, II. Recitations from Duhem's *Traité élémentaire de Mécanique chimique*. Prerequisites the same as for course 32. Courses 32 and 33 supplement each other, but the two may be taken in either order. Three hours. Assistant Professor TREVOR.]

[34. Electrochemistry. The historical development of the subject. For advanced students in physical chemistry or physics. Lectures. Two hours. Assistant Professor BANCROFT.]

[35. The History of Thermodynamics. From the work of Lavoisier and Laplace on heat, to the thermodynamics of the present. Profusely illustrated by lantern views. Prerequisites the same as for course 32. Lectures. Three hours. Assistant Professor TREVOR.]

36. The Application of Dynamics to Physical Chemistry. A course in this subject, based primarily upon J. J. Thomson's Applications of Dynamics to Physics and Chemistry, may be arranged for upon demand. One hour.

38. Laboratory Work. Experimental methods, and research work for theses. Assistant Professor BANCROFT.

39. Journal Club. Critical reviews of the current literature of physical chemistry. Open to advanced students. One hour. Assistant Professors TREVOR and BANCROFT.

MISCELLANEOUS COURSES.

40. German Chemical Reading. Winter and spring. M., W., 12, *Ch. L. R. 2*. Associate Professor DENNIS.

41. French Chemical Readings. Fall. M., W., 12, *Ch. L. R. 2*. Instructor CUSHMAN.

43. Chemistry of Foods and Beverages. Lectures. Fall and spring. T., Th., 9, *Ch. L. R. 2*. Professor CALDWELL.

[44. Toxicology. Lectures. Winter. T., Th., 9, *Ch. L. R. 2*].

45. Physiological Chemistry. Lectures. Winter and spring. T., Th., 4:30, *Ch. L. R. 2*. Professor CALDWELL.

Of the courses in Chemistry given above, courses 7 (in part), 17, 22, 23, 24a, b, c, 25, 26, 27, 31, 32, 33, 34, 35, 36, 38, and 39, are regarded as senior or graduate work.

BOTANY.

The instruction in this department is offered at present in 14 courses. Courses 1 and 2 form a one year's course and are designed to lay the foundation for the advanced courses, as well as to present to the student a general outline of the principles of botanical science. Course 3 is designed especially for the needs of the students in civil engineering, where a knowledge of timber structure, strength of material as related to different kinds of timber tissue, and the diseases of timber, is important.

The advanced courses in comparative morphology, and embryology, comparative histology and mycology, are intended to lay the foundation for independent investigations in these subjects as well as to present in a logical way the fundamental principles of development, relationship, and phylogeny, as applied in these topics. Aside from the elementary courses these subjects are especially recommended to students who are fitting themselves for teachers, since a grasp of the principles underlying them is needed for the proper and thorough presentation of the elementary principles of botany. In the work of these courses each of the students gradually accumulates a set of permanent microscopic preparations which can be kept for future reference and for demonstrations before classes.

The flora of the region of Ithaca is very rich in species, and offers excellent opportunities for the student of systematic botany, and some facilities in the study of geographic botany. Excellent facilities are offered to the students who are fitting themselves for [experiment] economic work in the courses in plant histology and in the study of the fungi. While the laboratory is distant from the seashore it is well supplied with material of the marine algae for morphological and developmental study of typical forms, and material preserved especially for the purpose is also supplied for investigations in development.

The laboratory is well equipped with microscopes, microtomes, photographic apparatus, thermostats, sterilizers, culture rooms, an electric lantern and a large number of views for illustrating portions of the

lectures, the Auzoux and Brendel models representing the different groups of plants, and other illustrative material in the way of charts, maps, etc. The large green houses in connection with Sage College adjoin the rooms of the department, and are filled with many exotics representing the Pteridophytes, Gymnosperms and Angiosperms, and offer available material at all seasons for studies in development, and histology, and furnish living plants for illustrative material for many of the lectures. Space is devoted to the study of plant growth, physiological experiments, and for the handling and treatment of green house plants, the latter being in charge of the head gardener of the department. The department also contains a large and growing herbarium, as well as collections of fruits, cones, nuts, fibres, a general collection of economic products, and a large number of specimens of the woods of different countries.

Courses 1 and 2 may be elected in the freshman year upon consultation. Those desiring to specialize in botany are advised to take these courses in the first year.

I. GENERAL COURSES.

1. General Comparative Morphology and Physiology of Plants. Three hours. Fall and Winter. A study of representative plants of various groups, and of the fundamental principles of plant life and relationship. Lectures, M., 11. Laboratory practice and demonstrations, T., 2-5, and W., 11-1; and if another section is formed, Th., 2-5, and F., 11-1. One forenoon and one afternoon session must be taken each week. Professor ATKINSON and Instructor DURAND.

2. Special Morphology of Higher Plants. Spring term. Three hours. Studies of Typical plants representing the more general groups, with particular reference to the morphology of the stem as the plant-axis and leaves as lateral organs. An abridged study of the intimate structure of woody stems. Lectures, W., 11. Laboratory work by appointment. Assistant Professor ROWLEE and Assistant WIEGAND.

3. Forestry. Fall term. Two hours. The structure and development of wood. Timber and its uses. General principles of forestry. Fifteen lectures, M., W., 9. Assistant Professor ROWLEE. The diseases of timber and forest trees. Eight lectures. M., W., 9. Professor ATKINSON. (Required of Civil Engineers, and open to election without any prerequisite in botany, to those interested in forestry problems.)

4. Short Winter course in Botany for Students in Agriculture. Two

hours. A study of general morphology and of the fundamental principles of plant growth, with special reference to cultivated plants. Fungous diseases of cultivated plants. Hours by appointment. Assistant Botanist DUGGAR.

5. Geographical Botany. Spring term. Lectures Th., 9. The distribution of plants over the surface of the earth. Practical field studies in plant distribution; also the preparation of an herbarium representing the flora of a limited district. Assistant Professor ROWLEE.

6. Exotics. One or two hours. The conservatory in connection with the department offers excellent opportunities for students who wish to become familiar with practical methods in the propagation and cultivation of conservatory plants, and in practical green house work. Mr. Shore, the expert gardener, will have charge of the instruction and practical work. Students desiring to take this course should consult Professor ATKINSON who will have charge of conference and reports. Hours by appointment.

II. ADVANCED AND GRADUATE COURSES.

(Courses 7-11 may be elected in any order which the student chooses, the only pre-requisite being courses 1 and 2).

Comparative Histology, and Phanerogamic Botany,

7, Taxonomy of Angiosperms. Three hours through the year. Lectures, T., 9. Laboratory work by appointment. A study of the genetic relationships of the phanerogamous orders. Fall term. Monocotyledons. Winter and spring terms. Dicotyledons. Practical studies in the laboratory of groups illustrating the principles of natural classification. Assistant Professor ROWLEE.

8. Comparative Histology of Plants. Three hours through the year. Fall term. Introduction to methods of investigation. Preliminary studies of the vegetable cell and its contents. Winter term. The development of primary tissues. Kinds of tissue. Comparative study of vascular tissue. Spring term. Secondary thickening. Lectures, F., 9. Laboratory work by appointment. Assistant Professor ROWLEE and Assistant WIEGAND.

Comparative Embryology, Mycology and Kindred Subjects.

9. Comparative Morphology and Embryology. Three hours through the year. A study of representative groups which illustrate the line of evolution of green plants. Especial attention will be given to tracing the development and homologies of sporogenous, reproductive and embryological organs, with discussions of the principal plant

phyla. Permanent microscopic preparations will be made representing series in the liverworts, mosses, ferns, gymnosperms and angiosperms. Research work may be taken as a parallel course by registering in course 13. In the fall term the chief attention will be given to the Bryophyta, the winter will be devoted principally to the Pteridophyta, followed by the gymnosperms and angiosperms in the spring. The course is continuous, and because of the logical sequence of the subjects, must be taken in the order presented. Lectures, Th., 11. Laboratory work preferably Monday and Wednesday afternoons. Professor ATKINSON and Instructor DURAND. Pre-requisites, courses 1 and 2.

10. Mycology. Three hours through the year. Fall term. *Basidiomycetes*; studies of representative genera of this large group, with especial attention to the structure and characters of certain edible and poisonous mushrooms. The equivalent of one weekly laboratory session will be devoted to field work in the collection of material. Winter term. Parasitic Fungi; the history and development of the most important parasitic fungi. Spring term, general classification with studies in representative groups and discussions of the phylogeny of the fungi. Practice in the recognition of species, or research work may in some cases be taken as a parallel course by registering in course 13. Lectures, T., 11; laboratory work preferably Tuesday and Thursday afternoons. Professor ATKINSON and Instructor DURAND. Pre-requisite, courses 1 and 2.

11 a. Algology. Three hours through the year. A study of fresh water and marine forms of algae, with reference to development and classification. Fall, chiefly Chlorophyceae and Cyanophyceae. Winter, Phaeophyceae and Florideae. Spring, practice in the recognition of species. Lectures and laboratory work by appointment. Professor ATKINSON. Pre-requisite, courses 1 and 2.

11 b. Taxonomy of the Bryophytes and Pteridophytes. Three hours through the year. A study of typical genera, and practice in taxonomic work. The equivalent of one hour will be devoted to lectures, excursions, and field work. Hours by appointment. Instructor DURAND.

III. RESEARCH, THESES AND SEMINARY.

12. Research work in comparative histology of plants and in taxonomy of Angiosperms. Investigations in the laboratory and collateral reading. Subjects, hours, and methods of work to be arranged with each student. In this course opportunity is afforded for continuing the work in either courses 7 or 8. Preparation of a thesis. Assistant Professor ROWLEE.

13. Research work in comparative embryology, mycology, algology, ecology, and kindred subjects. Upon consultation special topics for investigation and for the preparation of theses will be assigned. Hours by appointment. Professor ATKINSON.

14. Seminary. The seminary is composed of the advanced and graduate students. Weekly meetings will be held for the discussion of the current literature of the science, the presentation of assigned topics, and the results of research work. Regular attendance and participation will entitle the students to one hour credit. Professor ATKINSON and Assistant Professor ROWLEE.

ENTOMOLOGY AND GENERAL INVERTEBRATE ZOOLOGY.

The scope of the instruction in this department is indicated by the title of the department ; elementary courses are given in the general subject of invertebrate zoology, and special courses, both elementary and advanced in entomology. An opportunity is offered the student to lay a broad foundation for zoological studies by lectures covering in a general way the field of invertebrate zoology, and by a study in the laboratory of a wide series of typical forms, illustrating the more important groups of Invertebrates. These two courses taken in connection with similar courses offered by the Department of Physiology and Vertebrate Zoology afford the instruction in zoology needed by students in the general courses and serve as an introduction to the more advanced work of those who wish to make a special study of zoology.

Owing to the difficulty of studying marine animals at any place remote from a sea coast and to the exceptionally good facilities for the study of insects at this University, those students wishing to take advanced work in invertebrate zoology here are advised to select some subject in entomology, and especial encouragement is given to those students wishing to make original investigations in this field. An important feature of this department is a summer term, consisting of lectures, field work, and laboratory practice, at the season of the year most favorable for the study of insects.

THE MUSEUM AND LABORATORY. The material equipment of the department for the study of General Invertebrate Zoology consists of a museum in which there is a good series of Invertebrates, including an excellent collection of corals and a very large collection of shells, the Newcomb Collection. The museum also contains the complete series of glass models of invertebrates made by Blaschka, the papier maché models of Auzoux, and a complete set of the zoological diagrams of

Leuckart. The laboratory is kept supplied with alcoholic specimens of the typical marine forms studied by the students. These are supplied to the students at cost.

The entomological cabinet contains, in addition to many exotic insects, specimens of a large proportion of the more common species of the United States. These have been determined by specialists, and are accessible for comparison. The collection includes many sets of specimens illustrative of the metamorphoses and habits of insects. The laboratory is also supplied with a large collection of duplicates for the use of students; and is equipped with microscopes and other apparatus necessary for practical work in entomology.

The insectary of the Agricultural Experiment Station affords facilities to a limited number of advanced students for special investigations in the study of the life history of insects, and for experiments in applied entomology.

The following courses are offered in 1897-98.

1. Invertebrate Zoology. General Course. Fall term. Lectures. M., W., F., 10. During the greater part of the term there will be only two lectures a week, and one practical exercise by the class in sections at hours to be arranged. *White 12.* Professor COMSTOCK.

2. Invertebrate Zoology. Special laboratory course. Fall and spring terms. Daily ex. S., 8-1. *White 20.* Professor COMSTOCK, and Assistant MACGILLIVRAY.

3. General Entomology. Lectures on the characteristics of the orders, sub-orders, and the more important families, with special reference to those of economic importance. Spring term. M., W., F., 10. During the greater part of the term there will be only two lectures a week, and one practical exercise by the class in sections, at hours to be arranged. *White 12.* Professor COMSTOCK.

Course 3 is open only to students who have taken course 1. Those special students in agriculture who do not take course 1, but who wish to study entomology are recommended to take at least three hours of laboratory work (course 4) in the fall term, and course 6 in the winter term.

4. Economic Entomology. Elementary laboratory course, insect anatomy, classification of insects. Fall and spring terms. Daily ex. S., 8-1. *White 20.* Professor COMSTOCK, and Assistant MACGILLIVRAY.

Students taking course 4 are required to register for at least three hours.

5. Research in Entomology. Advanced laboratory course, special work arranged with reference to the needs and attainments of each

student. Fall and spring terms. Daily ex. S., 8-1. *White 20.* Professor COMSTOCK and Assistant MACGILLIVRAY.

6. Economic Entomology. Lectures on applied entomology. Discussion of the more important insect pests and of the methods of combating them. Winter term, two lectures per week. *White 12.* Assistant Entomologist SLINGERLAND.

7. Economic Entomology. Laboratory work. The structure and classification of insects, with special reference to the needs of students taking the Short Winter Course in Agriculture. Winter term. T., Th., 2-4. *White 20.* Assistant MACGILLIVRAY.

SUMMER COURSE.

8. Summer Course in Entomology and General Invertebrate Zoology. Lectures by appointment. *White 12.* Field work, T., Th., 8:30-11; laboratory work, daily ex. S., 8-5. *White 20.* Professor COMSTOCK and Assistant MACGILLIVRAY.

The laboratory and field work is arranged with reference to the needs and attainments of each student. After completing an elementary course in either general zoology or entomology, the student may select some subject in systematic zoology, economic entomology, or insect anatomy for special investigation. It is planned to have the work of each student, as far as possible, an original investigation. The chief object of the course is to give training in methods of natural history work. The Summer Course begins the Wednesday following Commencement, and lasts ten weeks.

Only those students of this University who have taken courses 1 and 3 are admitted to course 8. Teachers and others desiring to take this course without previously attending the University, should state in their applications the amount of zoological work they have done. Registration for the course will close June 1st.

The tuition fee for the Summer Course is \$25. Students that have been members of the University during the preceding year, are excused from the payment of this fee.

PHYSIOLOGY, VERTEBRATE ZOOLOGY, AND NEUROLOGY.

The laboratories and lecture-rooms of the department occupy the entire north wing of McGraw Hall. The museum is in the center of the building on the main floor and in the first gallery.

Courses of Instruction.—With all, practical work constitutes an essential feature. With the first three, Physiology, Vertebrate Zoology, and Neurology, one-third of the exercises are in the form of practi-

cums, the objects being studied by the students in groups under constant supervision, and with explicit directions. In the other courses the laboratory work is adapted to the needs of the individual.

Courses 1, 2, and 3 are intended to be taken continuously in the same year, but for the present this is not insisted upon.

Course 1 is general and introductory to the others in this department. It may advantageously precede or accompany courses 1, 2 and 3, in Microscopy, Histology and Embryology, and the courses in Anatomy, and in the Physiology of Domesticated Animals (Veterinary College). Courses 1 and 3 are also designed to serve as a preparation for Psychology (Course 1 in Philosophy).

The Museum.—In its formation there has been kept in mind constantly its main purpose as an aid to instruction, elementary and advanced. Merely curious, showy or costly specimens have not been sought. But efforts have been made to obtain from all parts of the world representative forms of the various vertebrate groups, and by means of carefully prepared specimen, to illustrate ideas, *e. g.*, the adaptation of structure to function; the persistence of apparently useless or injurious organs; the unity of type under diversity of external form and mode of life; the relationship of man to the apes, etc. The collection embraces an unusual number of well preserved and prepared brains of man and other vertebrates. The local fauna is already represented by 240 species, of which about 45 are fishes and about 150 are birds. It is believed that at least 350 different vertebrates inhabit the neighborhood of Ithaca.

Opportunities for Research.—Besides ordinary forms, there are readily obtained living necturus, amia, and two kinds of lamprey. The Brazilian fishes collected by the late Professor C. F. Hartt have been identified by Professor Eigenmann. The large number of cats, sheep hearts and brains, and representative vertebrates, used annually at the practicums in Physiology and Zoology facilitates the study of normal anatomy and of variations therefrom. Besides the museum specimens there are in store many entire vertebrates, particularly marsupials at various ages. The hearts of numerous forms have been prepared by injecting alcohol into their cavities. For the study of cerebral topography, unusual facilities are offered in both material and literature.

The following courses are offered in 1897-98:

Courses 1 to 6 inclusive may be taken by Freshmen without special permission.

1. Physiology. Fall term. Three hours. Two lectures. T., Th.,

11 ; a second section at 12 if necessary. One practicum : several sections at hours to be arranged Saturday forenoon and the afternoons of Thursday and Friday. The lectures treat largely of the structure and functions of the nervous system and the sense organs. At the practicums each student dissects the viscera and certain muscles of the cat, and the heart, brain and eye of the sheep ; the principal tissues, including living cilia, are also examined under the microscope. Professor WILDER and Instructor STROUD.

2. Vertebrate Zoology. Winter term. Three hours. Two lectures and one practicum ; days and hours as in course 1. At the practicums are dissected representative forms including necturus, lamprey, ray, and shark ; sections of the lancelet are studied under the microscope. Professor WILDER and Instructor STROUD.

Course 2 must be preceded by course 1, or by course 1 in Entomology and Invertebrate Zoology.

3. Neurology. Spring term. Three hours. Two lectures and one practicum ; days and hours as in course 1. The lectures deal with (a) the comparative anatomy of the brain ; (b) the morphology of the human brain ; (c) the arrangement of the cerebral fissures.

Course 3 must be preceded by courses 1 and 2.

4. Physiologic Anatomy. Fall term. Laboratory work with occasional lectures. Two or three hours. An extension of course 1 with special reference to the needs of teachers of elementary physiology. The practicum dissections are repeated. The corresponding human organs are examined. Simple, painless experiments are performed. Professor WILDER and Instructor STROUD.

Course 4 must be preceded or accompanied by course 1.

5. Comparative Anatomy. Winter term. Two or three hours. Laboratory work with occasional lectures. An extension of course 2. Professor WILDER and Instructor STROUD.

Course 5 must be preceded or accompanied by course 2.

6. Systematic and Economic Zoology and Museum Methods. Two or three hours per week throughout the year. Laboratory and field work with a weekly lecture. Professor WILDER, Instructor STROUD, and Mr. SURFACE.

Course 6 must be preceded or accompanied by course 2.

7. Advanced Neurology. Laboratory work with occasional lectures. Daily throughout the year. Professor WILDER and Instructor STROUD.

Course 7 must be preceded by courses 1, 2, and 3.

8. Histology of the Nervous System. Spring term. Three hours. Laboratory work, with a weekly lecture or recitation. T., 9. Instructor STROUD.

Course 8 must be preceded by courses 1, 2, and 3, and by courses 1 and 2 in Histology and Embryology.

9. Research and Thesis Work. Daily throughout the year. Professor WILDER and Instructor STROUD.

10. Department Conference. Fortnightly throughout the year, at an hour to be arranged, alternating with the Seminary in Microscopy, Histology and Embryology.

All the courses in this department, and particularly the more advanced, are more satisfactorily pursued if the student has the following preparation. See Register for 1897-98, pages as indicated below:

1. Latin and Greek as required for the Two Years course Preparatory to the Study of Medicine; p. 37.

2. French and German as required for entrance to the courses in Architecture and Mechanical Engineering; pp. 36 and 37.

3. Freehand Drawing; Course 1. See under Sibley College.

4. Photography; course 9 in Physics; p. 124.

5. Microscopy and Histology; courses 1 and 2; p. 145.

ANATOMICAL METHODS AND HUMAN ANATOMY.

The instruction in anatomy is given in six courses of which two pertain to Comparative Veterinary Anatomy; the other four courses are outlined below. The instruction is by lectures and laboratory work, the latter being by far the more important.

In courses 1 and 2, the student learns some anatomy, but what is of more importance to the beginner, the eyes become somewhat trained to distinguish quickly, and the hands to dissect neatly and accurately the various structures under consideration, so that in course 3 the study of human anatomy may be taken up with more advantage than otherwise would be possible.

The department of anatomy occupies the whole of the east wing of the Veterinary College—a structure 90 feet by 40, and one story in height. The floors are of impermeable granolithic cement; the walls are lined by enameled white brick, and the ceilings are covered with sheet steel. The main laboratory is 54 feet by 40 and 22 feet in height. It is well lighted by skylights and by electricity. It is heated by steam and hot air. The ventilation is nearly perfect, fresh air being forced into the room by large fans situated in the basement. The entire volume of air in the laboratory can be changed every five minutes without creating any perceptible draft. This constant supply of perfectly pure air is an important feature in a dissecting room. The laboratory is supplied with mounted skeletons, and other osteological material, a large refrigerator, injecting and other laboratory apparatus.

In addition to the general library of the University, there are upon the book-shelves of the laboratory dictionaries, both English and medical, a set of the Reference Handbook of the Medical Sciences, standard text-books of anatomy, physiology, physics, etc., for the special use of students in the laboratory, as books of reference.

Connected with the main laboratory is a smaller one, 22 feet by 22, which is used as a preparation room and as a private laboratory. Opening into the laboratories is a locker room, containing locker accommodations for 150 students, and off from this room are the lavatories, etc.

The following courses are offered in 1897-98 :

1. Anatomical Methods and Gross Anatomy. Fall term. Three hours. Lecture, S., 12. Laboratory work by appointment. Assistant Professor HOPKINS.

2. Advanced anatomy. Winter term. Three hours. Lecture, S., 12. Laboratory work by appointment. This course is devoted to the study of the vascular, lymphatic and peripheral nervous systems and the organs of sense, the eye and ear, of the cat. Course 2 is a continuation of course 1, and must be preceded by it, or its equivalent. Assistant Professor HOPKINS.

3. Human anatomy. Laboratory work through the year. This course is designed for those wishing to specialize in human anatomy. Course 3 must be preceded by courses 1 and 2, or their equivalent. Assistant Professor HOPKINS.

4. Research and thesis. Laboratory work through the year. Designed for those wishing to take up some special point in human or comparative anatomy, and for those taking theses in the department. This course must be preceded by courses 1 and 2). Assistant Professor HOPKINS.

(For courses in Veterinary Anatomy see under Veterinary College.)

MICROSCOPY, HISTOLOGY, AND EMBRYOLOGY.

As indicated by the following courses, this department offers elementary and advanced instruction in the theory and use of the microscope and its accessories, in photo-micrography, in vertebrate histology and vertebrate embryology; and opportunities for research in all of these subjects.

The rooms for the use of this department are on the third floor of the Veterinary College. They are ample and almost perfectly lighted, and consist of a large general laboratory, a research laboratory, and the private laboratory of the professor in charge where special demonstrations of difficult subjects are given to small groups of students.

The material equipment consists of a good supply of modern microscopes each one of which is fitted with a low and medium power dry objective and a 2 m.m. homogeneous immersion objective. Camera lucidas, polariscopes, micro-spectroscopes, photo-micrographic cameras, and other special apparatus are in sufficient numbers to give each student opportunity for personally learning to use them, and for applying them to any special study in which they are called for. The general and research laboratories are large, and are equipped with microtomes, incubators, aquariums, etc. The collection of histologic and embryologic specimens is extensive and constantly increasing. Full sets of typical specimens are available for study and comparison by the students.

The aim of the department is to bring the student into direct contact with the truths of nature, and hence, while there are lectures to give broad and general views, there is a large amount of laboratory work in which the facts are learned at first hand, and the methods and manipulations necessary for acquiring the facts, are practiced by each student. It is recognized that less ground can be covered in a given time in this way, but it is believed, and experience has confirmed the belief, that the intellectual independence and the power to acquire knowledge direct from nature which is gained by this personal work, is of far higher value than the facts and theories that might be learned in the same time from books and lectures alone, or from specimens prepared by some other individual.

This lake region with its rich and varied fauna is especially favorable for investigations in the histology and embryology of all the main groups of vertebrates and the proximity of the abattoirs in the city, makes it possible to obtain abundant material for the study of the development of the sheep, cow, and pig. The college clinic and the department of anatomy supply an abundance of material for the embryology of the cat and dog, so that the opportunities for research upon the development of the domestic animals are excellent. Every encouragement is given for the fullest utilization of these opportunities by students in the preparation of theses and for special investigations.

The following courses are offered in 1897-98 :

Courses 1, 2, and 3 are open to freshmen.

1. The Microscope and Microscopical Methods. First half of fall term. Two hours. Two lectures and three hours of laboratory work. This course forms the basis for all the subsequent work given by the department. It is also designed to give a knowledge of the theory

and use of the microscope and its accessories, which would be advantageous for the work of any department where the microscope is employed. M., W., 8. Professor GAGE and Instructor KINGSBURY.

This course counts for two hours for the term, although the work must all be done in the first five weeks.

2. Vertebrate Histology. Last half of fall term (3 hours) and the winter term (5 hours). Eight hours. Two lectures and three hours laboratory work. In this course are given the elements of the fine anatomy of man and of the domestic animals. It includes also methods of histologic investigation and demonstration. M., W., 8. Professor GAGE and Instructor KINGSBURY.

This is a continuation of course 1, and is open only to those who have taken course 1, and have taken or are taking courses in anatomy and physiology.

3. Vertebrate Embryology. Spring term. Five hours. Three lectures and two hours of laboratory work. This course deals with the elements and methods of embryology in man, the domestic animals and the amphibia. M., W., F., 8. Professor GAGE and Instructor KINGSBURY.

Course 3 is open only to those who have pursued courses 1 and 2. (The lectures alone may be attended by those who have taken courses 1 and 2 in Physiology and Vertebrate Zoology).

4. Research in Histology and Embryology. Laboratory work with Seminary throughout the year. This course is designed for those preparing theses for the baccalaureate or advanced degrees and for those wishing to undertake special investigations in histology and embryology. Professor GAGE and Instructor KINGSBURY.

Course 4 is open only to those who have taken courses 1, 2 and 3, or their equivalent in some other university. Drawing (course 9, in Mechanical Engineering, or its equivalent) and a reading knowledge of French and German are indispensable for the most successful work in this course.

Subjects for baccalaureate theses should be decided upon if possible during the spring term of the junior year so that material in suitable stages of development and physiologic activity may be prepared.

5. Structure and Physiology of the Cell. Spring term. Two hours. Laboratory work with lectures. This course is designed for advanced students who wish to investigate cytological problems. Dr. KINGSBURY.

6. Advanced Microscopy. Spring term. Two hours. Laboratory work with lectures. In this course special instruction will be given in the theory and use of the more difficult and important accessories of

the microscope, *e. g.*, the micro-spectroscope, the micro-polariscope, the apertometer, the photo-micrographic camera and the projection microscope Professor GAGE.

This course is open only to those who have taken course 1, and if photo micrography is desired, an elementary knowledge of photography like that given in course 9, Department of Physics, is necessary.

7. Seminary. There will be a meeting of the department staff and students engaged in research, once in two weeks, for conference and report upon special investigations.

NOTE.—For the work of this department the student will find a knowledge of Latin and Greek of the greatest advantage. A year's study of Latin, three to five recitations per week, and of Greek, Goodell's Greek in English, or Coy's Greek for beginners, would represent the minimum amount needed. For all courses, the ability to draw well free hand, and a good reading knowledge of French and German are desirable, and for research work almost indispensable.

GEOLOGY.

INCLUDING : A. PALEONTOLOGY AND STRATIGRAPHIC GEOLOGY ; B. MINERALOGY AND PETROGRAPHY ; C. DYNAMIC GEOLOGY AND PHYSICAL GEOGRAPHY.

A. Paleontology and Stratigraphic Geology.

All courses of this department are elective ; and are open to students who have had, or are taking a course of three or more hours in invertebrate Zoology. A special attempt is made to have all work, so far as is practicable, carried on after the manner of original research. This is rendered feasible by the fortunate location of the University, in the midst of the most important and classical State of the Union, so far as paleontology and stratigraphic geology are concerned.

A seemingly large proportionate amount of time is spent in field and laboratory, with few recitations and lectures, thus giving the future teacher a knowledge at first hand of these important branches of geology as taught in secondary schools, and the future specialist precisely the knowledge and methods of work he will need in any university, state or national geological survey.

Great stress is laid on the study of shells, for by means of them stratigraphy and the world's geological history are mainly interpreted. The large University collections of invertebrates, fossil and recent, mostly shells, have been rearranged and catalogued during the past few years, and now form a most valuable and indispensable aid to elementary and advanced workers. Among those most serviceable to

students of older formations will be found: the Jewett collection, especially rich in New York Silurian species; local and practically complete Devonian faunas from Central New York; the Hartt type collection of carboniferous fossils from Brazil.

Of late special attention has been given to Tertiary paleontology and geology, annual field expeditions being sent into the Southern States, where deposits of this age occur. The enormous amount of material so obtained when taken in connection with the Newcomb collection of recent shells (over 10,000 species) furnishes unparalleled opportunities for work in this branch of paleontology.

B. Mineralogy and Petrography.

In this department both elementary and advanced courses are offered to students who have the necessary preliminary knowledge of chemistry and physics. The courses lead in two main directions: (a) toward an acquaintance with the properties, methods of investigation, and uses of minerals and rocks; and (b) toward a knowledge of the characteristics of crystallized matter, and of the important relationship existing between crystallography and the sciences of physics and chemistry.

The laboratory rooms and museum are situated at present in McGraw Hall. They are well equipped with study collections, including the Benjamin Silliman, Jr. collection of minerals, and with apparatus for experiment and investigation. There is also material for original research.

C. Dynamic Geology and Physical Geography.

The plan of the elective courses offered in these subjects is in the first year to give a general view of the subject of geology, placing especial stress upon the dynamic side, but introducing the other aspects of geology where they have a distinct bearing upon the course. This is not primarily a professional course, but is intended to meet the needs of those who, without meaning to specialize, wish a certain knowledge of the earth sciences. At the same time it serves as the basis for more advanced work. In the second year the subject of physical geography is offered, and this (beginning with 1898), presupposes the course in geology. These two courses together will serve as a preparation for those who expect to teach the earth sciences in secondary schools. The physical geography, or physiography, follows the plan recently suggested by the Committee of Ten, and other educational conferences. After these two years the student is able to undertake work for himself in the library and field. In these more advanced courses small problems are investigated and reports made upon

them, and thus a training is gained for more advanced field work upon larger problems.

The work of the first two years consists partly of lectures and partly of field and laboratory work ; but in the later years no lectures are given, the work being largely individual. Therefore, from the very first, the student is placed directly in contact with the problems of the field, and is given training in observation and geological reasoning. The laboratory is well equipped with models, maps, rock specimens and photographs illustrating geological and physiographic phenomena. The neighborhood of Ithaca abounds in both simple and complex illustrations of geological phenomena ; and in each class, in the spring and fall terms, excursions are made to points within easy reach of the University. These half-day excursions are supplemented by some to more distant points, occupying the entire day ; and still longer expeditions are sometimes organized. During 1896-97 excursions were made to Niagara and to the coal mines at Wilkesbarre, and probably similar expeditions will be made each year. Now and then vacation trips may be undertaken, particularly during the summer. In 1896 a party of advanced students made a journey to Greenland. These more extensive field experiences are planned to give training for those who intend to pursue the subject of geology.

A. PALEONTOLOGY AND STRATIGRAPHIC GEOLOGY.

These six courses are elective.

1. Elementary Stratigraphic Geology and Paleontology. Three hours. Field and laboratory work two, lecture one hour. Fall. The professor's private launch will furnish a very inexpensive and efficient means for visiting rock exposures and for transporting materials collected on Cayuga and Seneca lakes, and other nearby waters, to the laboratory. Excursions at least once a week, generally Saturdays. Assistant Professor HARRIS.

2. As No. 1, but covering in the field the whole New York section of rocks. Five hours. Laboratory and field work. Outline of work : Enrolment of class and start from Ithaca *via* Cayuga Lake, and Erie canal for Troy, N. Y., Sept. 6 ; stratigraphic studies, collection of fossils, sketching and photographing important outcrop of rocks from the oldest Cambrian about Troy to the upper Devonian about Ithaca, Sept. 10 to registration day. (The launch mentioned under No. 1 will be used in this work). Laboratory work during the regular term ; identification of fossils ; compiling a detailed and consecutive account of all observations made during the trip. Assistant Professor HARRIS.

3. Elementary Conchology. A study of the common and important types of brachiopods. Lectures and laboratory work. Two hours. Fall. Lamellibranchs. Lectures and laboratory work. Three hours. Winter. Univalves. Lectures and laboratory work. Three hours. Spring. Frequent excursions will be made to rock outcrops and near-by waters where fossils and recent shells will be collected. Assistant Professor HARRIS.

4. Paleontological Illustration. One hour. Spring. Assistant Professor HARRIS.

5. History of the development of Paleontological and Stratigraphic Geology in America. Lectures. Two hours. Assistant Professor HARRIS.

6. Laboratory work during all terms of the year. Nearly all advanced work, including preparation of theses and original articles, is classed under this heading. Assistant Professor HARRIS.

B. MINERALOGY AND PETROGRAPHY.

1. Mineralogy. Fall. Three hours. A short course, designed especially for Civil Engineers and Architects, consisting of lectures, recitations and laboratory practice. Assistant Professor GILL and Mr. BONSTEEL.

2. Lithology. Spring. Two hours. Lectures and recitations. A short course on the study of rocks without the use of the microscope,—planned to suit the needs of Architects. Assistant Professor GILL.

3. Mineralogy. Fall and winter. Three hours, two lectures and one laboratory hour. This course is for beginners in the subject, and is designed to lead up to more advanced work. Assistant Professor GILL.

4. Blowpipe Analysis of Minerals. Spring. One laboratory hour. Assistant Professor GILL.

5. Physical Crystallography. Fall. Three hours, two lectures and one laboratory hour. Must be preceded by course 3 or its equivalent. Assistant Professor GILL.

6. Petrography. Winter and spring. Three hours. Must be preceded by course 5. Assistant Professor GILL.

7. Seminary in Mineralogy and Crystallography. Winter. One hour. Devoted to the study of current literature and some of the more important classic writings. Assistant Professor GILL.

6. Advanced Work in Mineralogy and Petrography. Adapted to the needs of the individual student. Includes preparation of theses. The work may be directed in the line of Crystallographic Measure-

ments, Crystal Structure, Mineral Synthesis or Microchemical Methods. Assistant Professor GILL.

C. DYNAMIC GEOLOGY AND PHYSICAL GEOGRAPHY.

Lecture room first floor, south end of McGraw Hall; offices and laboratory second floor; consultation hours, 10-11.

Courses 2 and 3 are for Civil Engineers and Architects; not open to elective students unless preceded by Mineralogy 1.

2. Dynamic Geology. Winter. One lecture, M., 10; one recitation, W., 10, or F., 10; and one laboratory hour. Time to be arranged. *Geological Lecture Room*. Professor TARR and Mr. BONSTEEL.

3. Economic Geology. Spring. One lecture, M., 10; one recitation, W., 10, or F., 10; and one laboratory hour. Time to be arranged. *Geological Lecture Room*. Professor TARR and Mr. BONSTEEL.

Elective Courses.

4. General Geology. Lectures, accompanied by field and laboratory work. Three hours. Especial attention is given to dynamic geology, but the general subject is also treated in its relation to dynamic and physiographic geology. Field excursions in fall and spring terms. Lectures, M., W., 9. *Geological Lecture Room*. Laboratory work T., 2-4:30 (probably another section will be required, hours to be arranged). *Geological Laboratory*. The field excursions occupy the entire afternoon for 3 or 4 days in the fall and spring terms. Professor TARR. *Open to all elective students*.

5. Physical Geography. Lectures. Two hours. Fall term, meteorology and oceanography. Winter and spring terms, physiography. T., Th., 9. *Geological Lecture Room*. Professor TARR.

Beginning with 1898 course 4 must be taken before course 5.

This course is adapted to the needs of students expecting to teach in the secondary schools. It deals with the new physical geography or physiography which has been recommended for the secondary school curriculum.

6. Laboratory and Field Course in Physical Geography. One hour. Th., 2-4:30. *Geological Laboratory*. Professor TARR.

This course is planned to accompany and illustrate course 5 as well as to furnish instruction in the laboratory methods available for the work.

7. Glacial Geology. Spring. Three hours,—two lectures and one hour devoted to excursions. Open only to those who have taken or are taking courses 4 or 5. Lectures, T., Th., 10. For the field excursions

sions, three Saturdays and one afternoon ; time to be arranged. *Geological Lecture Room.* Professor TARR.

8. Seminary for Teachers. One hour. Time to be arranged. Consideration of methods to be employed in teaching geography and the earth sciences in the schools. *Geological Laboratory.* Professor TARR.

9. Geological Investigation. Field and laboratory work with readings, conferences, excursions and the preparation of theses. Original investigation based upon field work is undertaken by each student. Primarily for seniors and graduates. Professor TARR.

10. Geological Seminary. Preparation and reading of theses upon special subjects, particularly upon investigations in the field. Abstracts and discussions of the current geological literature. Two hours. Primarily for seniors and graduates. Professor TARR.

HYGIENE AND PHYSICAL CULTURE.

An introductory or general course of lectures is given each year to all freshmen in the University. Advanced courses of instruction are also given each year. These take up the various problems of physical culture, and consider the auxiliary appliances for their solution. Special attention is given to the needs of students intending to teach.

For the physical training and development of male students there has been provided a Gymnasium, thoroughly equipped with baths, dressing-rooms, and all the apparatus usually found in a well-furnished gymnasium. This is under the charge of an experienced physician, the Professor of Physical Culture and Director of the Gymnasium, who examines every male student at his entrance and at stated intervals thereafter, learns the condition of his health, takes his physical measurements, and prescribes such exercises as may be required for his complete and symmetrical bodily development. The gymnasium is also open to all the members of the University for voluntary exercise ; but the Professor of Physical Culture or the Instructor in Gymnastics is in constant attendance, and no student is suffered to indulge in hazardous or excessive athletic efforts, or to attempt any feat which in his individual case might be attended with risk.

Special provision has also been made for the physical training of women in the Sage College Gymnasium. The professor, and his assistant in this department have organized a system of exercises calculated to maintain and develop the physical strength of young women, and at the same time prevent any of the evils which might arise from exercises that are too violent or too long continued.

The exercises thus provided for are obligatory upon all members of the freshman or sophomore classes living in the college, subject to exceptions in particular cases by the Instructor in charge.

The building erected for the purposes of the GYMNASIUM AND ARMORY is situated at the extreme southern end of the campus. The main portion is of brick, one hundred and fifty feet long, sixty feet wide, and fifty feet high. The Annex joining the main hall on the south, is a three-storied building, having an area of seventy-four by eighty feet. The main building, with the exception of a small portion that is set apart for an office and a military store room, is used for gymnastics and military drill. This contains the arms and equipment of the cadet corps, and a carefully selected supply of the most improved gymnastic apparatus and appliances for both individual and class work. The hall is heated by steam and lighted by electricity, and gives a clear space of floor room in the gymnasium of one hundred and thirty-five by sixty feet. The Annex contains the offices of the Department of Physical Culture, examination room, bath rooms, swimming bath, lavatory, closets, general repair room, baseball batting cage, crew practice room, and dressing-rooms which contain locker accommodations for about one thousand students.

Athletics.—The Cornell Athletic Association, composed of representatives from the trustees, faculty, and student athletic organizations, was incorporated in June, 1889. A standing committee on athletics, including the faculty members of the association, has also been appointed from the faculty. It is hoped that the coöperation of these various interests, and the existence of a permanent organization, may tend to produce a greater steadiness in the management of athletics, and permit of some continuity in the transmission of athletic methods and traditions.

The athletic ground called Percy Field, after the son of one of the donors, was secured and equipped for out-of-door sports by the joint gift of Mr. J. J. Hagerman and Mr. W. H. Sage. The field has an area of nearly ten acres, including a quarter-mile cinder track, the Witherbee Memorial club-house, and a grand stand seating about twelve hundred persons, and is arranged for football, baseball, tennis, and general athletics.

The following courses are offered in 1897-98 :

1. Hygiene and Physical Culture. Required of freshmen in Agriculture, Architecture, Civil Engineering, Mechanical and Electrical Engineering. Lectures. Fall term. One hour. Hours to be assigned. Professor HITCHCOCK.

2. Hygiene and Physical Culture. Open to all students. Fall and

winter terms. Two hours. Lectures and recitations. Lectures same as in course 1. Hours to be arranged. Professor HITCHCOCK.

3. Physical examinations. Men of all classes without special appointment. Gymnasium Office. Daily, 2-4, ex. S. Professor HITCHCOCK. Women of all classes by special appointment. Office of the Gymnasium for Women. Miss CANFIELD.

4. Special Medical Advice to Indigent Students. Gymnasium office. Daily, from 12 to 1, throughout the year. Professor HITCHCOCK.

5. Gymnastic Exercises. Aesthetic class, consisting of men who in the judgment of the Director,—which judgment is founded on a physical examination,—are imperatively in need of a special physical development. Fall and spring terms. The work consists of class and squad work, special developing exercises, and exercises prescribed by the Director for individual deformity and immaturity. Daily, ex. S., 5-6. Mr. LANNIGAN.

6. Gymnasium exercises. Winter term. Freshmen, 4-6. M., T., Th., F. Optional class on W. and S., 5. Special exercises for individuals during the forenoons at hours to be arranged. Mr. LANNIGAN.

7. Women's Gymnastic Exercise. Freshmen and sophomores. Gymnasium for women. Throughout the year. Instruction is given in class exercises, with and without apparatus. Daily, ex. S., 4-6. Miss CANFIELD.

8. Special class for women, similar in aim to course 5. Throughout the year. Hours to be arranged. Miss CANFIELD.

9. Practical Gymnastics. Open only to juniors and seniors. Counting two hours. Hours to be arranged. Professor HITCHCOCK and Miss CANFIELD.

MILITARY SCIENCE.

Pursuant to the act of Congress creating the land grant on which the Cornell University is founded, and the act of the Legislature of the State of New York assigning the land grant, instruction is provided in Military Science and Tactics.

Military Drill is required of all male freshmen and sophomores except aliens, laboring students, special students and those physically unfitted therefor. A student deficient in a term of Military Drill is not permitted to substitute anything else for that work, or to be excused from any subsequent term until the deficiency is removed. In the cases of students not taking Drill and Gymnasium, an equivalent in hours will be added to the 180 hours required for graduation. Students in the College of Law are exempt from this requirement, but may take any of the courses enumerated below.

Students who drill are required to provide themselves with the University uniform, unless excused on account of inability to procure it, and they are held accountable for loss or injury to the arms and other public property issued to them.

Any member of the Cornell University corps who has satisfactorily performed all the duties required for the first year, and who is qualified therefor, may be selected for the place of a commissioned officer, if needed. For the performance of his duties as a commissioned officer in the junior or senior year, he is entitled, if duly registered therefor to credit of three recitation hours a week for the fall and spring terms, and, at graduation, he may receive a certificate of military proficiency with his diploma, provided he has also completed the course in military science prescribed for the winter term of the senior year.

Upon the graduation of each class, the names of such students as have shown special aptitude for military service will be reported to the Adjutant General of the Army and to the Adjutant General of the State of New York, and the names of the three most distinguished students in military science and tactics will be inserted in the *Official Army Register*, and published in general orders from Headquarters of the Army.

The following courses are offered in 1897-98 :

1. Infantry Drill. School of the Soldier. School of the Company. Two sections. M., W., F., 2. M., W., F., 4:45. School of the Battalion and Ceremonies. M., W., F., 2. Fall and spring terms. Captain SCHUYLER.

The second section comprises only those who are in that shop-division of Sibley College which works from 2 to 5 p. m., on Monday, Wednesday, or Friday.

2. Artillery Drill for selected detachments. School of the Battery, dismounted. Sabre exercise. Fall and spring terms. M., W., F., 2.

3. Military Signalling combined with Bicycle, for selected detachments. Fall and spring terms. M., W., F., 2.

Students in courses 2 and 3 are selected by the Commandant from those reasonably proficient in course 1.

4. Musketry and Target Practice. Theoretical instruction. Position and aiming drills. Winter term. M., W., 4:45. Armory. Gallery and range practice, 200 and 300 yards. Spring term. Hours to be arranged.

The marksman's badge, presented by Gen. A. C. Barnes of the Board of Trustees, will be conferred on each student qualifying as marksman ; a bar to be added for each subsequent qualification.

5. Military Science. Lectures and text book. The Science of War will be presented as to its bearing upon the study of history, and upon the comprehension of current events, and as to its scope in training for the profession of Arms. Winter term. T., Th., 12. Captain SCHUYLER.

A TWO-YEAR COURSE PREPARATORY TO THE STUDY OF MEDICINE.*

Not leading to a degree.

For the entrance requirements see p. 37 of the Register, or address the professor of Physiology. Before matriculating, new students are advised to confer with Professor Wilder in McGraw Hall, or Professor Gage in the Veterinary College.

<i>Freshman Year.</i>	1st Term.	2d Term.	3d Term.
Physiology†	3	Vertebrate Zoology 3	Neurology 3
Microscopy	5	Histology	5 Embryology 5
Anat. Methods	3	Anatomy	3 Histology of } 3
Botany	3		3 3
Chemistry	3		3 3
Military drill	2	Physical training . 4	Military drill 2
<i>Sophomore Year.</i>	1st Term.	2d Term.	3d Term.
Psychol. and Logic	3		3 3
Physics‡	2		2 2
Invertebrate Zoology 3	Anatomy	3	 3*
Chemistry	3		3 3
Physiol. Chemistry	2		2 2
Bacteriology	3		3 3

* Upon the completion of this course, or its equivalent, and upon application on or before June 1, the student is entitled to a certificate countersigned by the professor of Physiology. In comparing this course with the requirements for entering the second year of certain medical schools, each hour per week for one term, may be reckoned as representing twenty-five hours of actual time devoted to the subject.

† Such as pass an entrance examination in Practical Anatomy with a mark of 80 may be excused from most of the practicums in this course.

‡ In preparation for this course students are advised to review the entrance requirement in Plane Trigonometry during the summer preceding the sophomore year.

THE COLLEGE OF LAW.

FACULTY.

JACOB GOULD SCHURMAN, A.M., D.Sc., LL.D., *President.*

FRANCIS MILES FINCH, A.B., LL.D., *Director of the College, Dean of the Faculty, and Professor of the History and Evolution of the Law.*

ERNEST WILSON HUFFCUT, B.S., LL.B., *Professor of Law.*

CUTHBERT WINFRED POUND, *Professor of Law.*

WILLIAM ALBERT FINCH, A.B., *Secretary of the College, and Professor of Law.*

EDWIN HAMLIN WOODRUFF, LL.B., *Professor of Law.*

JARED TREMAN NEWMAN, Ph.B., LL.B., *Lecturer on the Law of Civil Procedure.*

JUDGE ALFRED C. COXE, A.M. (of the United States District Court), *Lecturer on the Law of Shipping and Admiralty.*

ALBERT H. WALKER, LL.B. (of the Hartford Bar), *Lecturer on the Patent Laws of the United States.*

ALEXANDER H. R. FRASER, LL.B., *Librarian.*

FOUNDATION.

The School of Law of Cornell University was first opened for the admission of students September 23, 1887. A building erected for its special accommodation at a cost of over one hundred thousand dollars, was dedicated February 14, 1893, and was named Boardman Hall in honor of the first Dean of the School, Douglass Boardman. At the same time Mrs. A. M. Boardman and Mrs. Ellen D. Williams, the widow and daughter of Judge Boardman, presented to the School the Moak Law Library which they had purchased of the estate of the

late Nathaniel C. Moak, of Albany. This noble gift added to the collection already possessed gives to the College a library of over twenty-five thousand volumes. Generous additions are made yearly and all sets of reports are kept complete to date.

COLLEGE YEAR.

The college year for 1897-98 begins Monday, September 20, 1897, and closes Thursday, June 16, 1898, being divided into three terms, with two intermissions of about ten days each at Christmas and in the Spring. Students should present themselves promptly for registration on the dates fixed for that purpose in the calendar.

ADMISSION TO THE COLLEGE.

[For details as to subjects and methods of admission, see below and pages 26-61.]

For admission to the first year class, communications should be addressed to the Registrar. See below and pages 29-40.

For admission to advanced standing from other colleges and universities, communications should be addressed to the College of Law, See below and pages 41 and 42.

REQUIREMENTS FOR ADMISSION.

Applicants for admission to the first year class must be at least eighteen years of age, and to the second year class at least nineteen years of age.

The educational requirements for admission to the first year class are as follows :

I. ADMISSION ON DIPLOMA OR CERTIFICATE.—Graduates of universities or colleges, students who have met the entrance requirements and satisfactorily completed one year of study in any university or college of approved standing, students who have completed an academic or high school course approved by the Faculty, students who hold an Academic Diploma issued by the Regents of the University of the State of New York, and covering the subjects required for entrance to the college or their substantial equivalents, are admitted without examination as candidates for a degree,—except that all applicants who are not graduates of universities or colleges, or who do not hold a Regents' Diploma covering eight academic English counts, including English composition, or three full years of the English courses established by the Regents, February, 1893, are required to pass an examination in English.

Applications for admission on a diploma or certificate issued by a public or private high school or academy must be sent in advance to the Registrar of the University by the Principal of the school issuing the diploma, and not by the candidate himself, and must be accompanied by full and specific information with regard to the course of study, the time given to each subject and the amount of work covered in each subject. Where a catalogue or circular is issued by the school this should also be filed with the application. Blank forms of certificate may be obtained of the Registrar.

2. ADMISSION ON EXAMINATION.—All other applicants for admission as candidates for a degree, are required to pass a satisfactory examination in the following subjects : (I) *Primary Subjects* : English, Geography, Physiology and Hygiene, Plane Geometry, Algebra, and two of the four following divisions of history,—American, English, Grecian, Roman. (II) *Advanced Subjects* : one of the following groups : (a) Greek and Latin ; (b) Latin and either Advanced French or Advanced German ; (c) Advanced French, Advanced German, and Advanced Mathematics.

These requirements are the same as for admission to the Academic Department. For details, see page 35.

Applicants taking entrance examinations may be admitted conditionally, notwithstanding they may be deficient in some subjects (other than English), in case such deficiencies are not so considerable as, in the judgment of the Faculty, to disqualify them from carrying on the work of the first year. All such conditions must be removed before the student will be allowed to register as a member of the second year class.

3. ADMISSION AS SPECIAL STUDENTS. Applicants who are twenty years of age may, in the discretion of the Faculty, be admitted to the college without examination as special students and may take such work as they desire, subject to the permission of the professors whose subjects are selected. In order to remain in the college special students must pass satisfactory term examinations in the work selected. Special students may be admitted as candidates for a degree if they pass the required entrance examinations before the beginning of the second year. Applicants for admission as special students should correspond with the Secretary of the College before presenting themselves in person, and should state fully the extent of their preparatory studies.

4. ADMISSION TO ADVANCED STANDING.—Applicants for admission to advanced standing as members of the second-year class must be at least nineteen years of age, must present the necessary educational

qualifications for admission to the first year class, and must pass a satisfactory examination in all the work of the first year, or offer satisfactory certificates of the completion of such work in other law schools whose entrance requirements and courses of study are equivalent to those of this college. No person will be admitted to the second year class except at the beginning of the college year in September. Examinations for advanced standing are held at the University in September.

5. ADMISSION OF STUDENTS FROM THE ACADEMIC DEPARTMENT. Juniors and seniors in good standing in the academic department of the university are allowed, with permission of the Faculty of Arts and Sciences and with the consent of the Faculty of the College of Law in each case, to elect studies in the College of Law which shall count toward graduation both in the academic course and in the college; but the sum total of hours so elected cannot exceed the number required for one year's work in the College of Law, or exceed nine hours per week in any term. Under this provision a student may complete a general course of university study and the law course in six years.

DIRECTIONS TO CANDIDATES.

Candidates for admission upon examination must apply at the office of the Registrar of the University at Morrill Hall for permits. Candidates for admission upon diploma or certificate, should mail their papers to the Registrar for examination before registration day. After registering at the office of the Registrar of the University, students must report at the office of the Secretary of the College, in Boardman Hall, where they will register and receive such directions as may be necessary.

It is desirable that applicants who are residents of the State of New York, and are not graduates of a college or university, should, before presenting themselves for admission, procure the Regents' "law student certificate" in order to comply with the rules for admission to the bar of the State.

COURSES OF INSTRUCTION.

The first year's work will be given in 1897-98, but the second and third years of the course will not be given until 1898-99.

Seniors in Law in 1897-98 will take the course as given on page 162.

(For the class entering 1897.)

<i>1st. Year.</i>	1st Term.	2d Term.	3d Term.
Contracts	4	4	4
Torts	3	3	3
Criminal Law and Procedure }	 2	2	2
Personal Property }	 3	3	3
Real Property }	 2	2	2
Civil Procedure	2	2	2

(Not given until 1898-99.)

<i>2d. Year.</i>	1st Term.	2d Term.	3d Term.
Real Property	2	2	2
Equity Jurisprudence	3	3	3
Agency Domestic Relations }	 2	2	2
Sales or Bills, Notes and Checks }	 -	2	2
Evidence	2	2	2
Civil Procedure	2	2	2
Statute of Frauds	2	-	-
College Court	1	1	1

(Not given in 1897-98.)

<i>3d Year.</i>	1st Term.	2d Term.	3d Term.
Real Property, Wills and Administration }	 2	2	2
Partnership and Corporations	2	2	2
Quasi Contract	3	-	-
Sales or Bills, Notes and Checks }	 -	2	2
Insurance	2	-	-
Carriers	-	2	2
Civil Procedure	2	2	2
Constitutional Law	3	-	-
International Law	-	2	2
General Assignments Fraudulent Conveyances }	 -	2	-
History and Evolution of Law	-	-	2
College Court	1	1	1

(During the year 1897-98, the following senior year course will be given for the class that entered in September, 1896.)

<i>Senior Year.</i>	1st Term.	2d Term.	3d Term.
Real Property	3	3	3
Wills and Administration }			
Equity Jurisprudence	3	3	—
Bills, Notes and Checks	—	—	3
Carriers	2	—	—
Sales	—	2	—
Insurance	—	—	2
Partnership	2	—	—
Constitutional Law	2	—	—
Evidence	—	4	—
Corporations	—	—	4
Civil Procedure	1	1	1
International Law	1	1	—
Statute of Frauds, etc. }	2	2	2
Hist. and Evolution of Law }			
College Court	1	1	1

I. UNDERGRADUATE COURSE.

The course of instruction extends through three years of nine months each. The object of the College is to afford a thorough training in the fundamental principles of Anglo-American law, both the substantive law and the law of procedure. Instruction is carried on by the study of selected cases, text-books, and syllabi, by lectures and exposition, and by colloquy and discussion. In addition to the courses given by the resident Faculty, provision is made each year for courses of lectures by eminent specialists in the profession.

First Year.

Contract. Fall, winter, and spring terms. M., T., W., Th., 9. Huffcut's Anson on Contract; Huffcut and Woodruff's American Cases on Contract. (Includes Hypothetical Cases. One hour.) Professor WOODRUFF.

Torts. Fall, winter, and spring terms. M., W., F., 11. Pollock on Torts; Burdick's Cases on Torts. (Includes Hypothetical Cases. One hour.) Professor HUFFCUT.

Criminal Law and Procedure. Fall, winter, and spring terms. T., Th., 11. Clark's Criminal Law; Fisher's Cases on Criminal Law; New York Penal Code and Code of Criminal Procedure. Professor POUND.

Property. (a) Personal Property. (b) Real Property begun: estates. Fall, winter, and spring terms. M., W., F., 10. Professor W. A. FINCH.

Civil Procedure. Fall, winter, and spring terms. T., Th., 10. Mr. NEWMAN.

Hypothetical Cases. Fall, winter, and spring terms. Argument and discussion of cases by members of the classes in Contract and Torts. Professors HUFFCUT and WOODRUFF. [This course is a part of the required work in Contract and Torts.]

Second Year, 1898-99.

Property. Real Property continued. Fall, winter, and spring terms. Two hours. Professor W. A. FINCH.

Equity Jurisprudence. Fall, winter, and spring terms. Selected Cases. Three hours. Professor HUFFCUT.

Agency. Half year. Two hours. Huffcut's Elements of the Law of Agency; Huffcut's Cases on Agency. Professor WOODRUFF.

Domestic Relations and the Law of Persons. Half year. Two hours. Woodruff's Cases on Domestic Relations and the Law of Persons. Professor WOODRUFF.

Sales *or* Bills, Notes and Checks (in alternate years). Winter, and spring terms. Two hours. Burdick's Elements of the Law of Sales; Burdick's Cases on Sales; Huffcut's Cases on Negotiable Instruments. Professor HUFFCUT.

Evidence. Fall, winter, and spring terms. Two hours. Thayer's Cases on Evidence. Professor POUND.

Civil Procedure. Fall, winter, and spring terms. Two hours. Professor ———.

Statute of Frauds. Trial and Argument of Causes. Fall term. Two hours. Lectures. Dean F. M. FINCH.

College Court. Fall, winter, and spring terms. One hour.

Third Year, 1898-99.

Property: Real Property continued: Wills and Administration. Fall, winter, and spring terms. Two hours. Professor W. A. FINCH.

Partnership and Corporations. Fall, winter, and spring terms. Two hours. Smith's Cases on Private Corporations. Professor POUND.

Quasi Contract. Fall term. Three hours. Professor HUFFCUT.

Sales *or* Bills, Notes and Checks (in alternate years). Winter and spring terms. Two hours. Professor HUFFCUT.

Insurance. Fall term. Two hours. Professor WOODRUFF.

Carriers. Winter and spring terms. Two hours. McClain's Cases on Carriers. Professor WOODRUFF.

Civil Procedure. Fall, winter, and spring terms. Two hours. Professor ———.

Constitutional Law. Fall term. Three hours. Professor POUND.

International Law. Winter and spring terms. Two hours. Professor HUFFCUT.

General Assignments for the Benefit of Creditors. Fraudulent Conveyances. Winter term. Two hours. Lectures. Dean F. M. FINCH.

History and Evolution of Law. Spring term. Two hours. The course at present consists of the following lectures: 1. Introductory. 2. Rudimental Relations. 3. The Patriarchal System. 4. Tort and Possession. 5. Status and Sovereignty. 6. Transfers of Possession. 7. History of Contract. 8. Moses and Menu. 9. The Attic and Salic Law. 10. The Twelve Tables. 11. The Twelve Tables, continued. 12. The Praetor and His Ethics. 13. Justinian. 14. The Roman Evolution. 15. Anglo-Saxon Law. 16. The Fuedal System. 17. Seisin. 18. Decay of Fuedalism. 19. Sir Edward Coke. 20. The Common Law. Dean F. M. FINCH.

College Court. Fall, winter, and spring terms. One hour.

Senior Year, 1897-98.

[During the year 1897-98 the following senior year course will be given for the class that entered in the fall of 1896.]

1. (a) Real Property. (b) Wills and Administration. Three terms. M., T., Th., 11. Professor FINCH.

2. Equity Jurisprudence. Fall and winter terms. T., Th., F., 10. Professor HUFFCUT.

3. Bills, Notes and Checks. Spring term. T., Th., F., 10. Professor HUFFCUT.

4. Carriers. Fall term. W., F., 11. Professor WOODRUFF.

5. Sales. Winter term. W., F., 11. Professor WOODRUFF.

6. Insurance. Spring term. W., F., 11. Professor WOODRUFF.

7. Partnership. Fall term. W., F., 9. Professor POUND.

8. Constitutional Law. Fall term. T., Th., 9. Professor POUND.

9. Evidence. Winter term. T., W., Th., F., 9. Professor POUND.

10. Corporations. Spring term. T., W., Th., F., 9. Professor POUND.

11. Civil Procedure. Fall, winter, and spring terms. M., 9. Mr. NEWMAN.

12. International Law. Fall and winter terms. M., 12. [The course in "Questions in International Politics" may be taken in connection with this course. See Political Science, course 33]. Professor HUFFCUT.

13. (a) Statute of Frauds. (b) Fraudulent Conveyances, (c) Practical Suggestions for Preparation and Trial of Causes. Half year. M., W., 10. Judge FINCH.

14. History and Evolution of Law. Half year. M., W., 10. Judge FINCH.

15. College Court. Fall, winter, and spring terms. One hour.

Special Lecturers.

The Patent Laws of the United States. Mr. WALKER.

The Law of Shipping and Admiralty. Judge COXE.

EXAMINATIONS.

Examinations are held at the end of each term. The continuance of a student in the college is dependent upon the manner in which he passes such examinations. Furthermore the Faculty do not hesitate to drop a student from the rolls at any time in the year on becoming satisfied that he is neglecting his work.

COLLEGE COURT.

The College Court consists of the Faculty Division, Graduate Division, and Senior Division. The Senior Division is divided into Club Courts, for the argument of causes. Appeals lie from the Club Courts to the Graduate Division, and from the Graduate Division to the Faculty Division. Every senior and graduate is required to take part in these courts

A Practice Court is also conducted in connection with the course in Civil Procedure.

II. GRADUATE COURSE.

Graduates of this College or of other law schools whose entrance requirements and course of study are equivalent to those of this college, are admitted to the graduate course of study which extends over one year. The course is designed to meet the needs of those who desire to spend an additional year in the study of law either in general or special investigation. The work consists of the following elements :

1. Major subject. Each student at the beginning of the year selects a major subject in which he is expected to make thorough investigation. The student is under the direction of the professor in whose department he selects his major subject, and is required to present periodical reports as to the progress of his work.

2. Minor Subject. In addition to the major subject each student is

required to select a minor subject and to give to it such time and attention as the professor in whose department it lies may direct.

3. Additional General Subjects. Each student must further take such additional general courses as may be given by members of the Faculty for the benefit of all graduates. These courses are announced at the beginning of each year.

4. Thesis. Each student must prepare a thesis upon some topic connected with his major subject and approved by the professor in charge of that subject. This production must be of a high character as to subject matter and scholarship and the author must be prepared to stand an examination upon it and defend the position which it maintains.

5. College Court. Graduates are required to sit in the hearing of causes in the College Court, and to prepare written opinions in the cases decided.

6. Examinations. Graduates are examined upon all the work carried on during the year and must pass with high credit in order to become entitled to the advanced degree.

Two graduate scholarships of three hundred dollars each are conferred each year by the Faculty of the College. See p. 168.

III. SUMMER LAW SCHOOL COURSE.

A summer term of six weeks is conducted by the resident Faculty of the College, but the work of this term cannot be counted as a part of the regular course leading to a degree. For a description of these courses see p. 170.

COURSES IN THE ACADEMIC DEPARTMENT.

Students in the College of Law may, with permission of the Faculty of the College of Law and with the consent of the Academic Faculty of the University in each case, elect courses in the President White School of History and Political Science, the Department of Elocution and Oratory, or other departments. without the payment of any extra fee.

Some students who are not graduates of universities or colleges, prefer to take four years for the completion of the law course, giving ten or twelve class-room hours each week to law studies and five or more to studies in the other departments. This arrangement is encouraged by the Law Faculty, who are always ready to advise such students in the selection of non-professional courses.

EQUIPMENT.

BOARDMAN HALL.

Boardman Hall is situated directly opposite the general library building and was erected for the exclusive use of the College of Law. It is a large three-story structure, 202 by 58 feet, built of Cleveland sandstone with interior finish of oak, and practically fire-proof. On the first floor are three commodious lecture rooms and necessary cloak rooms. On the second floor are the offices of the several resident professors and rooms for graduate work and the use of the club courts. On the third floor are the library rooms, with accommodations for thirty thousand volumes and three hundred readers.

THE LAW LIBRARY.

The library of the College of Law numbers twenty-five thousand volumes. It includes the well known library of the late Nathaniel C. Moak of Albany, N. Y., which was presented in 1893, by Mrs. A. M. Boardman and Mrs. Ellen D. Williams, as a memorial to Judge Douglass Boardman, the first Dean of the College. This addition of the Moak collection to the law library makes the facilities not only unusually adequate to the needs of undergraduate students, but also, in connection with the University library, which contains over one hundred and sixty thousand volumes, affords extensive opportunity for scholarly research by advanced students. In reports of the Federal courts, reports of the several American state jurisdictions, and in English, Scotch, Irish and Canadian reports, the law library is practically complete. The other English speaking countries are largely represented. The library also possesses a full complement of textbooks and statutes, and complete sets of all the leading law periodicals in English.

GRADUATION.

FIRST DEGREE.

The degree of Bachelor of Laws (LL.B.) is conferred upon all students who have satisfactorily completed the work of the undergraduate course. This course requires three years for its completion, and no student is allowed to graduate except after three years of actual residence (unless in case of admission to advanced standing) without special permission of the Faculty. No student is allowed to graduate unless he has been in residence at least one year.

SECOND DEGREE.

The degree of Master of Laws (LL.M.) is conferred upon all students who have satisfactorily completed the work of the graduate course, but not unless they have been actually in residence one full year.

CERTIFICATES OF ATTENDANCE.

Each student who has been in regular attendance upon the College, whether entitled to a degree or not, may, on application to the Faculty, receive an official certificate of attendance, which states the time of his attendance and, if desired, the degree of his attainments.

SCHOLARSHIPS AND PRIZES.

STATE SCHOLARSHIPS.

The State Scholarships as described on p. 47, entitle the holders to free tuition in the College of Law.

GRADUATE SCHOLARSHIPS.

There are annually awarded by the Faculty of the College two graduate scholarships of three hundred dollars each. Candidates must be graduates of this college or of some similar school having equivalent entrance requirements and courses of instruction. Applications must be filed with the Faculty on or before the 15th of May of the college year preceding the one for which the application is made, and in case of graduates of other schools must be accompanied by a certified statement as to the entrance requirements and course of study and by testimonials as to attainment and character. The moneys due on the scholarships are payable at the office of the Treasurer of the University in three equal payments, on December 15, March 15, and June 15.

PRIZES.

LAW THESIS PRIZE

A fund of two thousand dollars has been given by a friend of the College, the income of which is devoted each year, under the direction of the Law Faculty, either for prizes for law theses, or for printing theses of special merit, or for both such purposes. The way in which the income is to be applied is determined each year upon the

presentation of theses. All theses submitted for this prize must be delivered to the Secretary on or before May 1st.

THE WOODFORD PRIZE.

See page 49.

THE '86 MEMORIAL PRIZE.

See page 50.

THE '94 MEMORIAL PRIZE.

See page 51.

FEEES AND EXPENSES.

TUITION FEES.

The fee for tuition for all law students, except special and optional students, is \$100 a year, payable as follows: \$40 at the beginning of the first term; \$35 at the beginning of the second term; and \$25 at the beginning of the third term. The fee for special and optional students in law is \$125 a year, payable as follows: \$50 at the beginning of the first term; \$40 at the beginning of the second term; and \$35 at the beginning the third term. These fees must be paid at the office of the Treasurer within twenty days after registration.

A fee of \$5 to cover expenses of graduation, degrees, etc., is charged to each person taking the baccalaureate degree. This fee must be paid at least ten days before commencement.

The fee charged for the master's degree is \$10, which must be paid at least ten days before commencement.

Tuition is free to students with State scholarships.

EXPENSES.

The following is a fair estimate of the yearly expenses:

Tuition	\$100 to \$125
Room, board, lights, fuel, and laundry	160 to 325
Text-books	40 to 50

Total \$300 to \$500

The additional expenses of a student depend so largely upon his personal tastes that it is difficult to give an estimate.

The expense of living in Ithaca varies, for board, room, fuel, and lights, from \$4 to \$10 a week. By the formation of clubs, students often materially reduce their expenses.

SUMMER TERM OF THE COLLEGE OF LAW.

The sixth regular summer term of the Cornell University College of Law will open Tuesday, July 5, 1898, and continue for six weeks, ending Saturday, August 13. Instruction will be given by members of the resident Faculty.

The courses offered are open to all persons who may desire to take advantage of them ; no preliminary examination for admission is required.

It has been found by experience that the summer courses are of special advantage to the following classes of persons : *First*, those who are preparing for bar examinations in New York or elsewhere. Such students, whether they have pursued their previous studies in a law school or in an office, find it very helpful to have a comprehensive and systematic review of the main branches of the law before presenting themselves for admission to the bar. The needs of such students are kept constantly in view. *Second*, those who desire an outline survey of the general field of law, together with a discussion of the leading principles, authorities and cases, before entering upon the more detailed study required for admission to the bar. It is believed that this class of students will find their subsequent labors much simplified by this preliminary outlook. *Third*, students in this or other law schools who wish to review the main subjects of their course before presenting themselves for their final examinations. *Fourth*, young attorneys who feel a need for further preparation and desire to spend a summer vacation in systematic study.

The work will cover the main general topics of the law, such as Contract, Torts, Property, Crimes, Evidence, Equity, Corporations, etc., and will be given by lectures supplemented by collateral reading of texts and cases.

The entire equipment of the College, including the library of 25,000 volumes, is open to all students in the summer courses.

Tuition fee, \$35 for the term, payable in advance. This is the only fee charged, and entitles the student to all the privileges of the College.

A circular containing more detailed information may be had, after May 1, 1898, upon application to *The Summer Law School, Cornell University, Ithaca, N. Y.*

THE COLLEGE OF AGRICULTURE.

FACULTY.

JACOB GOULD SCHURMAN, A.M., D.Sc., LL.D., President.
ISAAC PHILLIPS ROBERTS, M.Agr., Director of the College of Agriculture, Dean of the Faculty, and Professor of Agriculture.
GEORGE CHAPMAN CALDWELL, B.S., Ph.D., Professor of Agricultural and General Chemistry.
JOHN HENRY COMSTOCK, B.S., Professor of Entomology and General Invertebrate Zoology.
LIBERTY HYDE BAILEY, M.S., Professor of General and Experimental Horticulture.
HENRY HIRAM WING, M.S., Assistant Professor of Animal Industry and Dairy Husbandry.
MARK VERNON SLINGERLAND, B.S., Assistant Entomologist.
LOUIS ADELBERT CLINTON, B.S., Assistant Agriculturist.
GEORGE WALTER CAVANAUGH, B.S., Assistant Chemist.
ALEXANDER DYER MACGILLIVRAY, Assistant in Entomology.
*LEROY ANDERSON, M.S.A., Assistant in Dairy Husbandry.
*WALTER W HALL, Assistant in Cheese Making.
*JARED VANWAGENEN, Jr., B.S., Assistant in Butter Making.
*HUGH CHARLES TROY, B.S.A., Assistant in Chemistry.
*CLOUGH WILLIAM SIMS, B.S., M.A., Assistant in Agriculture.
GEORGE W TAILBY, Foreman of the Farm.
CHARLES HUNN, Foreman of the Garden.

Conductors and Assistants in University Extension Work in Agriculture.

JOHN WALTON SPENCER, Conductor in the Western District.
JOHN LEMUEL STONE, B.S.A., Assistant.
GEORGE TOWNSEND POWELL, Conductor in the Eastern District.
MARY FARRAND ROGERS, B.S., Assistant.
GEORGE A. SMITH, Conductor of Dairy Instruction.

ANNA BOTSFORD COMSTOCK, B.S., Assistant in Nature Study.

HOWARD BURT CANNON, B.S., Chief Clerk.

EDWARD ARTHUR BUTLER, Accountant.

JULIA ZITA KELLY, Stenographer.

The College of Agriculture comprises the Departments of General Agriculture ; Animal Industry and Dairy Husbandry ; Horticulture and Pomology ; Agricultural Chemistry ; General and Economic Entomology ; the Agricultural Experiment Station, and University Extension Work in Agriculture.

EQUIPMENT.

The University grounds consist of 270 acres of land, bounded on the north and south by Fall Creek ravine and Cascadilla Gorge respectively. One hundred and twenty-five acres of the arable land are devoted to the use of the Agricultural Department. This part of the domain is managed with a view not only for profit, but also to illustrate the best methods of general agriculture. A four years' rotation is practiced on the principal fields ; one year of clover, one of corn, one of oats or barley, and one of wheat. A dairy of twenty cows, a flock of sheep, some fifteen horses and colts, and other live stock are kept upon the farm. Nearly all of these animals are grades, bred and reared with the single view of giving object lessons which can be practiced with profit by the students on their return to their homes. A four-story barn provides for housing all the animals, machinery, tools, hay, grain, and manures. The stationary thresher, feed-cutter, chaffer, and other machinery are driven by steam power. The barn also furnishes many facilities for carrying on investigations in feeding and rearing all classes of domestic animals.

The barn is also furnished with a well equipped piggery and tool house. Not far from the main barn have been constructed four buildings with suitable yards and appliances for incubating eggs and rearing domestic fowls.

The agricultural class room is provided with a collection of grains and grasses, implements of horse and hand culture, and various appliances for carrying on instruction and conducting investigations. The whole plant is managed with a view to the greatest economy consistent with the greatest efficiency in imparting instruction.

THE DAIRY BUILDING, a two-story stone structure 45x90 feet, was built from an appropriation of \$50,000 by the Legislature of 1893. It provides lecture rooms, laboratories, and offices, besides two large rooms for butter and cheese making, both of which are fully equipped

with modern machinery and appliances. Automatic electrical apparatus for controlling the temperature in cheese-curing rooms, refrigerator room, lockers and bath rooms are also provided. The whole building is thoroughly heated and ventilated, and power is furnished by a sixty horse-power boiler and a twenty-five horse-power Westinghouse engine.

THE AGRICULTURAL MUSEUM occupies rooms on the second floor of Morrill Hall. It contains, 1. The Rau Models, being one hundred and eighty-seven models of plows made at the Royal Agricultural College at Würtemberg, under the direction of Professor Rau, and arranged and classified by him for the Paris Exposition of 1867. 2. Engravings and photographs of cultivated plants and animals, obtained at the various agricultural colleges of Europe. 3. A collection of the cereals of Great Britain, being a duplicate of that in the Royal Museum of Science and Art at Edinburgh, presented by the British government. 4. A collection of agricultural seeds. 5. A large number of models representing a great variety of agricultural implements. The class room has been provided with special sets of diagrams and other appliances designed to illustrate the lectures on agriculture.

The agricultural library contains files of bulletins and reports from the experiment stations of the United States and Canada: it has also a file of the publications of the U. S. Department of Agriculture. The leading works on agriculture are on the shelves. The exchange list includes the principal agricultural periodicals published in this country.

THE HORTICULTURAL DEPARTMENT EQUIPMENT comprises about ten acres of land variously planted, forcing houses, and a museum.

The gardens and orchards contain the fruits which thrive in the north in considerable variety, and in sufficient quantity to illustrate methods of cultivation. Nursery grounds are also attached, in which are growing many species of economic plants from various parts of the world. The fruits comprise something more than sixty varieties of grapes, over fifty of apples, fifty of plums, and other fruits in proportion. A dwarf pear orchard of 300 trees, and other representative orchards, comprise the remainder of the field space, excepting such as is set aside for vegetable gardening and floriculture. There is also a collection of one hundred varieties of hardy roses and various other ornamental and interesting plants.

The forcing-houses are eight in number and cover about 6,000 square feet of ground. These, in connection with store-rooms and pits, afford excellent opportunities for nursery practice, for the study of the forcing of all kinds of vegetables and for some kinds of floriculture.

A laboratory house, with space for forty students, is used for instruction in propagation of plants, pollination, and the commoner greenhouse operations. There is also a mushroom house 14 x 80 feet and a reading room for horticultural students.

The museum comprises two unique features,—the garden herbarium and the collection of photographs. The herbarium, which is rapidly assuming large proportions, is designed to comprise all varieties of all cultivated species of plants, and it is an indispensable aid to the study of garden botany and the variation of plants. The collection of photographs comprise about 5,000 negatives, with prints representing fruits, flowers, vegetables, illustrative landscapes, glass houses, and horticultural operations. A very large collection of machinery and devices for the spraying of plants is at the disposal of students. Charts and specimens in some variety complete the museum and collection.

The library has files of many of the important horticultural and botanical periodicals and a good collection of general horticultural literature.

THE ENTOMOLOGICAL CABINET contains, in addition to many exotic insects, specimens of a large proportion of the more common species of the United States. These have been determined by specialists, and are accessible for comparison. The collection includes many sets of specimens illustrative of the metamorphoses and habits of insects. The laboratory is also supplied with a large collection of duplicates for the use of students; and is equipped with microscopes and other apparatus necessary for practical work in entomology.

The insectary of the Agricultural Experiment Station affords facilities to a limited number of advanced students for special investigations in the study of the life history of insects, and for experiments in applied entomology.

THE CHEMICAL DEPARTMENT is housed in a three story brick building 126 feet in length and of an average width of 60 feet. The Department is liberally equipped with varied appliances necessary to give instruction to four hundred students in General and Agricultural Chemistry.

ADMISSION.

The following subjects are required for admission: English, Geography, Physiology and Hygiene, History, [the student must offer two of the four following divisions in History, (a) American, (b) English, (c) Grecian, (d) Roman]. Plane Geometry, Elementary Algebra and either A, B, or C as below.

A. Greek and Latin.

B. Latin and either Advanced French or Advanced German.

C. Advanced French, Advanced German and Advanced Mathematics.

An equivalent of any one of the three groups, A, B and C, may be offered, provided five counts are offered. Latin counts 3, Greek, French, and German 2 each. Advanced Mathematics (Solid Geometry, Advanced Algebra, Plane and Spherical Trigonometry) 1, provided however that the student before graduation must have passed in one modern language and in Advanced Mathematics if they were not offered for entrance.

[For details as to subjects and methods of admission see pages 29-42.

For admission to the freshman class communications should be addressed to the Registrar. See pages 29-40.

For admission to advanced standing from other colleges and universities, all communications should be addressed to the Director of the College of Agriculture. See pages 41-42.

For admission to graduate work and candidacy for advanced degrees, communications should be addressed to the Dean of the University faculty. See pages 61-63.]

PLAN OF INSTRUCTION.

The instruction in the College of Agriculture is comprised in the following general lines :

Advanced or graduate work in Agricultural Science. This instruction is designed to fit men for teachers and experimenters and it may lead to the degree of Master of Science in Agriculture, and Doctor of Science in Agriculture. The laboratories, dairy building, farm, gardens and orchards give ample facilities for the prosecution of independent work of a high character.

A yearly fellowship of an annual value of \$500 is assigned to the following group of Departments : Agriculture, Horticulture, and Veterinary Science. See page 54.

The Regular Course in Agriculture covers a period of four years. It is designed to afford an education as broad and liberal as that given by other departments of the University, and leads to the degree of Bachelor of Science in Agriculture.

THE COURSE IN AGRICULTURE LEADING TO THE DEGREE
OF BACHELOR OF THE SCIENCE OF AGRICULTURE.*

<i>Freshman Year.</i>	1st Term.	2d Term.	3d Term.
French, German or Mathematics	} 3	3	3
Invertebrate Zoology			
English	3	3	3
Freehand Drawing	3	3	3
Chemistry	3	3	3
Hygiene	1	-	-
Military drill	2	Physical training . 4	Military drill . . 2
<i>Sophomore Year.</i>	1st Term.	2d Term.	3d Term.
English	2	2	2
Physics	2	2	2
Agricultural Chem.	4	4	4
Political Economy	3	3	3
Physiology	{ 3	Elective { 3	-
Botany			
Military drill	2	-	Military drill . . 2
Elective	0-1 each term.		
<i>Junior Year.</i>	1st Term.	2d Term.	3d Term.
Elective	15-18	15-18	15-18
<i>Senior Year.</i>	1st Term.	2d Term.	3d Term.
Applied Agriculture	6	6	6
Thesis	-	2	2
Military Science	-	2	-

The remaining work of the course is elective,* with the condition that at least one-half of the entire elective work of each year, including the thesis and applied agriculture in the senior year, must be in work given by the departments of agriculture and horticulture and in the courses in agricultural chemistry and economic entomology.

It is recommended that the larger part of the remainder of the course be selected from the following courses :

Anatomical methods and laboratory.

Geology, courses 4 and 5.

Veterinary Science, courses 15 and 25.

Land Surveying, Civil Engineering, course 5.

Students not only receive instruction in the College of Agriculture, but also in the following named Colleges and Departments : Botany,

*All electives must be chosen by the student at the beginning of the year with the previous written approval of the director.

Freehand Drawing, Physics, Political Economy, Physiology, Vertebrate Zoology, Hygiene, Mathematics, French, German, and Drill and Gymnasium : *Geology, Veterinary Science, Civil Engineering, and Mechanical Engineering.* The elective work is in italics.

SPECIAL COURSE.

The special course is intended for young men who can not well spend four years in preparing themselves to become farmers and who yet wish to avail themselves of technical and practical instruction in modern scientific agriculture.

Young men who are eighteen years of age, and who furnish evidence to the Director that they are able to pursue the work elected in a satisfactory manner are admitted to the Special Course without examination. The number of hours and the courses elected must be approved by the Director. This course may extend through either one or two years. The work must be done largely in the College of Agriculture.

Special students, during the time they are in the University, enjoy equal advantages in all respects with students who are studying for a degree. They are admitted by vote of the Faculty upon recommendation of the Director of the College of Agriculture, and applications for admission to the Special Course should be made personally or by letter to the Director of the College.

SYNOPSIS OF COURSES.—AGRICULTURE.

Agriculture.—The instruction in Agriculture proper includes soils and their preparation, fertilizers, harvesting and marketing general and special crops ; laying out and improving farms ; drainage and irrigation ; farm buildings and fences, location, plans and construction ; farm yard manures and commercial fertilizers, composition, manufacture, preservation and application ; farm accounts, business customs, rights and privileges ; employment and direction of laborers ; farm implements and machinery, use, care and repairs ; grasses and forage plants ; weeds and their eradication ; swine, sheep and horse husbandry, breeds and breeding, care, management, and feeding.

The practice will include setting up and running machinery, as binders, mowers ; the sharpening and repairing of small tools, as scythes, saws, spades ; drawing up building plans and specifications ; farm book-keeping.

Dairy Husbandry.—The class room instruction will consist of lectures upon the production of milk and its manufacture into its various

products. The dairy house practice will comprise the making of butter and cheese by the most approved methods; testing of milk as to purity and fat content; the use and care of centrifugal separators and other creaming devices, and the details of creamery and cheese factory management.

Animal Industry.—Lectures will be given on the origin and formation of the various breeds of dairy and beef cattle; their selection and improvement; the improvement of native cattle and the formation of new breeds; the composition of stock foods and their combinations into rations suitable for various purposes. Practice will be given in tracing and tabulating pedigrees; judging by scale of points; and computing rations.

Poultry Keeping.—Will include instruction in breeds and breeding; feeding and management: caponizing; incubation, artificial and otherwise; construction of poultry houses and their management.

The Experiment Station, which is a department of the University, also offers opportunity for students to observe and study the investigations which are being carried on in many branches of animal and plant industries.

The following courses are offered in 1897-98:

1. Wheat culture: preparation of soil, seeding, insects, harvesting, marketing; farms, selection and purchase, location with regard to markets, roads, schools, society; farm buildings, location, plans, construction, liability of contractors; fields, shape and size; fences and gates, construction, repairs, durability of wood; farm and public roads, bridges and culverts; farm yard manures, composition, manufacture, preservation, application; commercial fertilizers, composition and use. Lectures. Fall term. Daily, except Saturday, 11. Five hours. *Morrill 19.* Professor ROBERTS.

2. Inspection of roads, bridges and farm buildings. Agricultural survey and comparison of farms; practice in fields, shop, and barns. Fall term. T., 2-5. One hour. Professor ROBERTS.

3. Farm accounts; business customs, rights and privileges, form of contracts, notes, deeds, mortgages; road laws, employment and direction of laborers; swine husbandry, breeds, feeding, management; the horse, breeds and breeding, feeding, education, care and driving; sheep husbandry, breeds and varieties, management and care, early lamb raising. Lectures. Winter term. Daily, except Saturday, 11. Five hours. *Morrill 19.* Professor ROBERTS.

4. Judging and scoring horses, swine and sheep; work in shop and barns; running engines and other farm machinery. Winter term. T., 2-5. One hour. Professor ROBERTS.

5. Farm drainage, construction, material, cost and utility ; history of plows and plowing ; farm implements and machinery, use, care and repairs ; corn, oat, barley, flax, hop, potato and tobacco culture ; grasses and forage plants ; silos and ensilage ; weeds and their eradication. Lectures. Spring term. Daily, except Saturday, 11. Five hours. *Morrill 19*. Professor ROBERTS.

6. Practice in fields and shop, use of tools, implements and farm machinery, draining, surveys and mapping. Spring term. T., 2-5. One hour. Professor ROBERTS.

7. Seminary work for advanced students. One hour. By appointment. *Morrill 19*. Professor ROBERTS.

8. For Winter course students.* Lectures on the leading subjects in all of the courses enumerated above, will be given so far as time will permit. Daily, except Saturday, 9. Five hours. *Morrill 19*. Professor ROBERTS.

9. Practice as in courses 2, 4, and 6, in sections by appointment, one afternoon for each section per week. Winter term. 2-5. Two hours. Professor ROBERTS.

Professor Roberts will be assisted by specialists in giving instruction in some of the subjects named.

10. Animal Industry. Principles of breeding, history and development, improvement and creation of dairy and beef breeds of cattle ; principles of feeding, care, selection and management of dairy and beef cattle. Winter and spring terms. Lectures. T., Th., 12. Practice one hour by appointment. Three hours. *Dairy Building*. Assistant Professor WING.

[11. Dairy Husbandry ; milk and butter. Fall term. Lectures. T., Th., 12. Practice two afternoons by appointment. Three hours. *Dairy Building*. Assistant Professor WING.]

12. Dairy Husbandry ; cheese. Winter term. Practice two days per week, 10-1, by appointment. Three hours. *Dairy Building*. Assistant Professor WING.

13. Dairy Husbandry. Laboratory work on special problems. By appointment, one to three hours. Open only to students who have had course 10. Assistant Professor WING.

14. For Winter Course Students. Animal Industry and Dairy Husbandry. Principles of breeding, feeding, and selection, care and management of dairy cattle. Daily, 8. Practice one afternoon by appointment. *Dairy Building*. Assistant Professor WING.

15. For Dairy Course Students. Winter. Lectures on milk and its

* See special announcement.

products ; breeding and feeding, daily, 8 ; lectures on subjects related to dairy husbandry, daily, 9 ; practice in butter and cheese making and in dairy laboratory, daily, 10-4.30. *Dairy Building*. Assistant Professor WING, Instructors HALL and VANWAGENEN, assisted by others of the faculty of the College of Agriculture.

16. Poultry : feeding, management and history of breeds, construction of henneries, incubators and brooders. Lectures. Spring term. W., F., 12. Two hours. Assistant Professor WING.

17. Practice in running incubators and brooders. Judging fowls, caponizing. Open to students who take course 16. One hour, by appointment. Spring term. Assistant Professor WING.

18. For Winter Course Students. Origin, history and classification of the domestic breeds of poultry ; breeding, feeding, and management ; construction buildings, incubators, and brooders. Lectures, W., F., 12. Two hours. Assistant Professor WING.

19. For Winter Course Students. Practice in judging fowls ; running incubators and brooders ; testing eggs, caponizing. One hour, by appointment. Can only be taken in connection with course 18. Assistant Professor WING.

20. For Students in Veterinary Science. Breeding, care and management of horses, sheep and swine. Stables, construction and sanitation. 2 hours. Fall term. Professor ROBERTS.

HORTICULTURE.

Horticulture.—The instruction in Horticulture is given in ten courses. Course 1 is designed to afford a general scientific foundation for the prosecution of all studies relating to the variation and amelioration of plants under conditions of domestication and cultivation, and it has only indirect reference to horticultural methods and practices. The literary side of the instruction is offered in course 2, which designs to give a general view of writings upon plant craft. Course 4 is intended for those advanced students, who have had some training in systematic botany, and who desire to familiarize themselves with the complex botany of cultivated plants. Courses 3, 5, 6, 7, 8, 9, are calculated to afford the latest information and methods connected with the commercial cultivation of plants, and in all of them laboratory work and field practice are important factors. Course 10 affords opportunities for investigation by advanced students, especially for postgraduates who desire to prepare themselves for experiment station work and for teaching. In this course, all subjects and hours are especially arranged for each student. Lectures upon Landscape Gardening are occasionally given in conjunction with the College of Architecture.

The following courses are offered in 1897-8 :

1. Evolution of Cultivated Plants. Fall. M., W., F., 10. A discussion of the current hypotheses of organic evolution as applied to the modification of plants, particularly of those in cultivation. Open to students in all courses who have taken courses 1 and 2 in Botany. Lectures and text book. Professor BAILEY.
2. The Literature of Horticulture. Fall. F., 11. A seminary in the literature of the cultivation of plants in various parts of the world, with reviews of periodical literature. Professor BAILEY and assistants.
3. Greenhouse Construction and Management. Fall. Two hours ; one hour of lectures (W., 11), and one of laboratory work, by appointment. Professor BAILEY and assistants.
4. The Botany of Cultivated Plants. Winter. 'Seminary course of one hour, by appointment. Professor BAILEY.
5. Pomology. Winter. M., W., F., 10. Lectures, text book, and other class exercises upon the cultivation of fruits. Professor BAILEY and assistants.
6. Propagation of Plants. Winter. Two hours, by appointment. A practical laboratory course in the multiplication of plants,—grafting, budding, making cuttings, pollination, etc. Professor BAILEY and assistants.
7. Art as applied to landscapes and ornamentation of grounds. Discussions of floriculture. T., Th., 10. Professor Bailey.
8. Field Lessons. One hour (laboratory), by appointment for pruning, and the study of orchards and plants where they grow. Includes The Theory and Practice of Spraying Plants. Spring term. Professor BAILEY.
9. Handicraft. Practical work in the forcing houses and gardens, with familiar talks. Throughout the year. One to three hours, by appointment. Professor BAILEY, Mr. HUNN, and assistants.
10. Investigation incident to previous courses. For graduates and advanced students. Throughout the year. Hours by appointment. Professor BAILEY.

Seminaries are conducted throughout the year, when requested by students. During the past year seminars have been held on Plant-breeding, and the history of evolution and study of out-door literature. Hours do not count towards graduation. The Horticulturists' Club meets every Monday evening.

*Chemistry.**

16. Agricultural Chemistry. General course. Four hours. Professor CALDWELL.

17. Agricultural Chemistry. Readings from journals. For those only who have had course 16. One hour. Professor CALDWELL.

Entomology.†

3. General Entomology. Lectures. Three hours. Spring. Professor COMSTOCK.

4. Economic Entomology. Laboratory work, Structure and Classification of Insects. Fall and Spring. Professor COMSTOCK and Assistant MACGILLIVRAY.

6. Economic Entomology. Lectures on applied entomology. Two hours. Winter. Assistant Entomologist SLINGERLAND.

7. Economic Entomology. Laboratory work. Winter. Assistant MACGILLIVRAY.

*Botany.‡**Veterinary Science.‡*

1. Diseases of Farm Animals. One hour. Winter term. Professor LAW.

2. General Physiology of Domestic Animals. Assistant Professor FISH.

3. Zoötechny. One hour per week for one year. Professor W. L. WILLIAMS.

FEES AND EXPENSES.

Tuition is free, see page 44.

An incidental fee is required as follows :

Post graduate students,	\$ 5 00 per term
Regular students, 3rd and 4th years,	5 00 " "
Special students,	5 00 " "

Deposits are required in the various laboratories where work is taken ranging from \$1.50 to \$10.00 per term according to the amount and nature of the work.

* All other courses in Chemistry are open to students in Agriculture.

† All other courses in Entomology are open to students in Agriculture.

‡ All courses not required in the sophomore year may be elected.

§ Subject to rule found on page 163.

EXPERIMENT STATION.

BOARD OF CONTROL:

THE TRUSTEES OF THE UNIVERSITY.

Station Council.

President, JACOB GOULD SCHURMAN.

ANDREW D. WHITE,	Trustee of the University
BENJAMIN F. TRACY,	President State Agricultural Society
Professor I. P. ROBERTS,	Agriculture
Professor G. C. CALDWELL,	Chemistry
Professor JAMES LAW,	Veterinary Science
Professor J. H. COMSTOCK,	Entomology
Professor L. H. BAILEY,	Horticulture
Professor H. H. WING,	Dairy Husbandry
Professor G. F. ATKINSON,	Botany
M. V. SLINGERLAND,	Entomology
L. A. CLINTON,	Agriculture
G. W. CAVANAUGH,	Chemistry
B. M. DUGGAR,	Botany

Officers of the Station.

I. P. ROBERTS,	Director
E. L. WILLIAMS,	Treasurer
EDWARD A. BUTLER,	Clerk

The Corps of the Agricultural Experiment Station is made up as follows :

ISAAC PHILLIPS ROBERTS, M.Agr., Director and Agriculturist.
 HENRY HIRAM WING, M.S., Assistant Professor of Animal Industry and Dairy Husbandry.
 GEORGE CHAPMAN CALDWELL, B.S., Ph.D., Chemist.
 JAMES LAW, F.R.C.V.S., Veterinarian.
 JOHN HENRY COMSTOCK, B.S., Entomologist and Invertebrate Zoologist.
 LIBERTY HYDE BAILEY, M.S., Horticulturist.

GEORGE FRANCIS ATKINSON, Ph.B., Botanist.

SIMON HENRY GAGE, B.S., Anatomist.

WILLARD WINFIELD ROWLEE, D.Sc., Plant Histologist.

MARK VERNON SLINGERLAND, B.S., Assistant Entomologist.

LOUIS ADELBERT CLINTON, B.S., Assistant Agriculturist.

GEORGE WALTER CAVANAUGH, B.S., Assistant Chemist.

BENJAMIN MINGE DUGGAR, M.S., A.M., Assistant Cryptogamic Botanist.

ABRAHAM LINCOLN KNISLEY, M.S., Assistant in Chemistry.

GEORGE WALTER TAILBY, Farm Foreman.

CHARLES EDWARD HUNN, Gardener.

EDWARD ARTHUR BUTLER, Clerk.

LIZZIE VERONICA MALONEY, Stenographer.

The Agricultural Experiment Station of Cornell University is a Department of the College of Agriculture. Incidentally, students may receive instruction from observing and discussing the experiments which are being carried on. The Federal Law passed March 2d, 1887, briefly outlines the object of the Experiment Station in the following words: "To aid in acquiring and diffusing among the people of the United States useful and practical information on the subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science." . . . It further provides "That bulletins or reports of progress shall be published at said stations at least once in three months, one copy of which shall be sent to each newspaper in the states or territories in which they are respectively located, and to such individuals actually engaged in farming as may request the same and as far as the means of the station will permit." The entire plant of the College of Agriculture is used, as occasion demands for conducting experiments in animal and plant growth and reproduction, and in applied, comparative and scientific research and investigations.

In pursuance of the provisions of Chapter 128 of the Laws of 1897, the following persons have been appointed investigators and instructors in the College of Agriculture of Cornell University to serve throughout the state according to the needs of the several localities for a portion or all of the year.

J. W. SPENCER,

G. T. POWELL,

G. A. SMITH,

M. V. SLINGERLAND,

B. M. DUGGAR,

J. L. STONE,

A. L. KNISLEY,

C. E. HUNN,

H. B. CANNON.

THE WINTER COURSES IN AGRICULTURE AND DAIRY HUSBANDRY.

There are many farmer's sons and daughters who cannot spend two or more years at college, but who would receive great benefit from lectures and practice during the winter months. To meet the needs of such persons the following courses are offered. The term begins the first week in January of each year and extends through one university term of eleven weeks.

Persons who are of good moral character and seventeen years of age may be admitted by the Director of the college without a formal examination, but are required to file a letter of recommendation and to satisfy him that their previous training has been such that they can pursue the studies elected with profit to themselves and credit to the University.

Students may elect either one of the following lines of study.

I. GENERAL AGRICULTURE.

Prescribed work—Agriculture, 5 hours per week.

Agricultural Chemistry, 3 hours per week.

Two hours per day of practice in educational work in barns, dairy houses, forcing houses and laboratories.

Elective. A minimum of 7 hours must be taken in addition to the prescribed work from the subjects named below :

Entomology, 2 to 5 hours per week.

Botany, 2 hours per week.

Horticulture, 2 to 5 hours per week.

Dairy Husbandry, 2 hours per week.

Animal Industry, 2 hours per week.

Poultry Keeping, 2 to 4 hours per week.

Political Economy, 1 hour per week.

Diseases of Farm Animals, 1 hour per week.

II. THE WINTER DAIRY COURSE.

This course is designed primarily to meet the needs of those butter and cheese makers who desire more thorough and comprehensive instruction, and to train those who are looking toward butter and cheese making as a profession. The instruction is largely given from the

standpoint of the factory, while that in the General Course in Agriculture is given with particular reference to the needs of the farm dairy.

No more than fifty can be accommodated in the building. The class will be limited to this number and applications should be made at as early a date as practicable in order to insure admission.

The instruction is partly by lectures and recitations, but largely by actual practice in the Creamery, Cheese Factory and Dairy Laboratory, the order being about as follows :

Lectures on milk and its products, 2 hours per week.

Lectures on subjects related to dairying, 10 hours per week.

Cheese room practice, 2 days per week.

Butter room practice, 2 days per week.

Dairy laboratory practice, 2 days per week.

Problems and book-keeping, 2 hours per week.

Courses and hours will be arranged at the beginning of the term.

CALENDAR.

The entrance examinations for students in the Regular Course are held in September and June. The instruction begins in the fall term, September 24, 1897 ; in the General Winter Course in Agriculture and the Dairy course, January 4, 1898. Students may be excluded if not present at the beginning of the term.

For further particulars and for a special announcement which will be sent on application, address I. P. Roberts, Director of the College of Agriculture, Cornell University, Ithaca, N. Y.

NEW YORK STATE VETERINARY COLLEGE.

FACULTY.

JACOB GOULD SCHURMAN, A.M., D.Sc., L.L.D., President.

JAMES LAW, F.R.C.V.S., Director of the College, Dean of the Faculty, and Professor of Principles and Practice of Veterinary Medicine, Veterinary Sanitary Science, and Veterinary Therapeutics.

WALTER L WILLIAMS, D.V.S., Professor of Principles and Practice of Veterinary Surgery, Zootechny, Obstetrics, and Jurisprudence.

PIERRE AUGUSTINE FISH, B.S., D.Sc., D.V.S., Assistant Professor of Comparative Physiology, Pharmacology, and Therapeutics.

VERANUS ALVA MOORE, B.S., M.D., Professor of Comparative Pathology and Bacteriology, and of Meat Inspection.

SIMON HENRY GAGE, B.S., Professor of Microscopy, Histology, and Embryology.

GRANT SHERMAN HOPKINS, B.S., D.Sc., Assistant Professor of Veterinary Anatomy and Anatomical Methods.

BENJAMIN FREEMAN KINGSBURY, A.B., Ph.D., Instructor in Microscopy, Histology, and Embryology.

RAYMOND CLINTON REED, Ph.B., Instructor in Comparative Pathology and Bacteriology.

EDWARD LOCKHART MOORE, B.S., Demonstrator of Veterinary Anatomy.

———, Demonstrator of Veterinary Anatomy.

*Professors and Instructors in Cornell University who furnish
Instruction to Veterinary Students.*

GEORGE CHAPMAN CALDWELL, B.S., Ph.D., Professor of Agricultural, Analytical and Physiological Chemistry.

ISAAC PHILLIPS ROBERTS, M.Agr., Professor of Agriculture.

LEWIS MUNROE DENNIS, Ph.B., B.S., Associate Professor of Analytical Chemistry.

HENRY HIRAM WING, M.S., Assistant Professor of Animal Industry and Dairy Husbandry.

*WILLIAM RIDGELY ORNDORFF, A.B., Ph.D., Assistant Professor of Organic Chemistry.

FREDERICK LAWRENCE KORTRIGHT, D.Sc., Instructor in Chemistry.

FRED DOUGLASS SMITH, B.S., Instructor in Analytical Chemistry.

DARWIN ABBOT MORTON, B.S., Instructor in Organic Chemistry.

BLIN SILL CUSHMAN, B.S., Instructor in quantitative chemical Analysis.

FOUNDATION.

The New York State Veterinary College was established by an act of the Legislature of March 21, 1894, supplemented by acts of May 10, 1895, and March 4, 1896. By these acts a sum of \$150,000 was appropriated for buildings and equipment and provision made for maintenance. While a State institution, it is administered by the Trustees of Cornell University, and its students profit by courses of study in the University classes and laboratories, and by the University library.

OBJECT OF THE INSTITUTION.

The New York State Veterinary College was founded to raise the standard of veterinary instruction and investigation to the level of the most recent advances in biology and medicine. The number of farm animals in this State (9,450,000) and their value (\$131,200,000) with a yearly product in milk alone, of over 5,000,000,000 gallons, give some idea of the great interest at stake in the matter of live stock. For the United States a value in live stock of approximately \$2,000,000,000 and a yearly sale in Chicago alone, of \$250,000,000 worth, bespeak the need of all that learning and skill can do for the fostering of this great industry. Another consideration is that the normal permanent fertilization of the soil is dependent upon the live stock kept, and that where there is a deficiency of animals, the productiveness of the land is steadily exhausted; so that the health and improvement of animals and the fostering of the animal industry, lie at the very foundation of our national wealth. Another, and no less potent argument, for the highest standard of veterinary education, is its influence upon the health of the human race. With a long list of communicable diseases, which are common to man and beast, and with the most fatal of all human maladies—tuberculosis—also the most prevalent affection in our farm herds in many districts, it is to the last degree important that measures for the extinction of such a

contagion in our live stock should receive the best attention of the most highly trained experts.

To justify the liberality of the State in creating this seat of learning, it will be the aim of the College to thoroughly train a class of veterinarians for dealing with all diseases and defects that depreciate the value of our live stock, and with the causes which give rise to them, to recognize and suppress animal plagues, which rob the stock owner of his profits and cause widespread ruin ; to protect our flocks and herds against pestilences of foreign origin, and to protect human health and life against diseases of animal origin. It will further aim, so far as it has the means and opportunity, at establishing a center of investigation, looking towards such improvements in the breeding, care and management of animals, as may enhance their market value and make returns more speedy and profitable ; toward discoveries in therapeutics, and the immunization of animals and men from contagion ; and toward the production of organic compounds to be employed in diagnosis, treatment, and immunizing. So much has been recently discovered in these directions and present knowledge points so unmistakably to coming discovery, that to neglect this field at the present time would be decidedly reprehensible. Apart from discovery, the mere production of reliable articles of these organic products which are coming into increasing demand by the State and the private practitioner, for prevention, diagnosis, and treatment, is an object not to be lightly set aside. The combination, in one institution, of educational facilities with scientific investigation, and the production of the organic extracts to be employed in the modern medical methods, is a feature calculated to insure the best work in all departments, and the most exceptional advantages for the diligent student.

BUILDINGS.

The buildings for the State Veterinary College are seven in number, as follows :

THE MAIN BUILDING, 142 feet by 42 feet and three stories high overlooks East Avenue and an intervening park 220 feet by 300 feet. The walls are of dull yellowish buff pressed brick, on a base of Gouverneur marble, window and door facings of Indiana limestone and terra cotta ornamentation. On the first floor are the museum and rooms for the dean, clerk, and the professor of surgery. The second floor is devoted to the upper part of the museum, a lecture room, reading room, library, and rooms for professors. The third floor is devoted to laboratories of histology, pathology and bacteriology and the necessary subsidiary offices.

Connected with the main building and forming its east wing is a structure of 90 feet by 40, and one story high. This contains the laboratories lecture room and other offices of anatomy and physiology. Its floors are of impermeable cement, the walls lined by enamelled white brick, and the ceilings covered with sheet steel.

A second extension from the main building is the BOILER AND ENGINE ROOM, where power is generated for heating and ventilation.

THE SURGICAL, OPERATING THEATRE is a separate building in the rear of the main building, and is furnished with rooms for forge, instruments, water heater, etc. The lighting and equipment and the facilities for demonstration have received special attention.

THE GENERAL PATIENTS' WARD, 100 feet by 31, is furnished with box and other stalls, heating apparatus, baths, and all necessary appliances. The floor is of impermeable cement and the ceilings of painted sheet steel. There is also a fodder room of 20 by 30 feet.

THE ISOLATION WARD, 54 feet by 15, has its stalls absolutely separated from one another, and each opening by its own outer door. It has an impermeable floor, with walls of vitrified brick and painted sheet steel ceilings.

THE MORTUARY BUILDING has impermeable floor, wall of enamelled brick and painted steel plate ceilings, and is fitted with every convenience for conducting post mortem examinations and preparing pathological specimens.

Another building of 51 feet by 20 is devoted to clinical uses.

These, with a cottage for the stud groom, complete the list of State buildings erected for the Veterinary College. The equipment has been made as complete as possible for both educational uses and original research.

VETERINARY COLLEGE YEAR.

The Veterinary College year for 1897-98 begins Monday, September 20, 1897, and closes Thursday, June 16, 1898, being divided into three terms, with one intermission of eleven days at Christmas, and one of ten days in the spring. Students must present themselves for registration on the days fixed for that purpose.

ENTRANCE EXAMINATION.

[All inquiries should be addressed to the Director of the State Veterinary College, Ithaca, N. Y.]

Candidates for admission to the State Veterinary College, except those specified below, must pass satisfactory examinations in the following subjects :

1. English. 2. Geography. 3. Physiology and Hygiene. 4. American History. 5. Plane Geometry. 6. Algebra, as much as is contained in the larger American and English text-books, and any *three* of the following :

8. Elementary French. 9. Elementary German. 10. Latin, Grammar and Caesar. 11. Vergil, Cicero, and Latin Composition. 12. Entrance Greek. 13. An amount of any group of the following making the equivalent of two years of high school work : Physics, Botany, Geology, Vertebrate Zoology, Invertebrate Zoology, Advanced French, Advanced German.

For details as to subjects and methods of admission, see pp. 29-40.

ADMISSION ON "REGENTS' VETERINARY STUDENTS' CERTIFICATE."

Students are admitted without further examination on the Regent's *Veterinary Student Certificate*.

For students entering in 1897, and thereafter, the certificate is based on four years of high school work, or 48 Regents' counts.

Full information may be obtained by addressing "Examination Department, University of the State of New York, Albany."

ADMISSION TO ADVANCED STANDING AND GRADUATE WORK.

ADMISSION TO ADVANCED STANDING.—Applicants for admission to advanced standing as members of the 2d or 3d year class must present the necessary educational qualifications for admission to the first year class and must pass a satisfactory examination in all the work gone over, or offer satisfactory certificates of the completion of such work in other veterinary schools whose entrance requirements and courses of study are equivalent to those of this college. No person will be admitted to any advanced class except at the beginning of the college year in September.

Applicants for advanced standing from other veterinary colleges must send or present letters of honorable dismissal, and furnish the Director, Dr. James Law, with a catalog containing the courses of instruction in the institution from which they come with a duly certified statement of the studies pursued and their proficiency therein, and also a statement of the entrance requirements with the rank gained. To avoid delay these credentials should be forwarded at an early date in order that the status of applicants may be determined and information furnished concerning the class to which they are likely to be admitted.

Graduates of veterinary colleges whose requirements for graduation

are not equal to those of the New York State Veterinary College may be admitted provisionally upon such terms as the faculty may deem equitable in each case, regard being had to the applicant's previous course of study and attainments. In this connection, attention is called to the legal requirements of academic and professional education for the practice of Veterinary Medicine in the State of New York.

ADMISSION TO GRADUATE WORK.—The ample facilities for graduate work in the New York State Veterinary College, with allied departments in Cornell University, are open to graduates of this institution and of other Veterinary Colleges whose entrance requirements and undergraduate courses are equivalent.

COURSES IN VETERINARY MEDICINE.

With the view of raising the standard of veterinary instruction, it is intended to establish a graded course extending over four years, as in the various departments of Cornell University, and in the best veterinary schools abroad. As a step towards this a three year course has been laid out. This is a decided advance upon any Veterinary College in America, as the majority of even the three year schools give only five months' instruction per year amounting to but fifteen months in all; while with an academic year of nine months, the New York State Veterinary College furnishes a total instruction period of twenty-seven months. Add to this that the Veterinary Practice Statute, prescribing two years of successful high school work as the condition of entering on veterinary studies in 1896, and four years of high school work for admission in 1897, adds more than an additional year to anything demanded on the part of American Veterinary Schools, and insures that a student with a mind already trained to mental processes, will acquire much more in the same length of time than the untrained mind can possibly do.

THREE YEARS' COURSE IN VETERINARY MEDICINE.

Leading to the degree of Doctor of Veterinary Medicine.

<i>First Year.</i>	1st Term.	2d Term.	3d Term.
Inorganic Chemistry	3	3	3
Anatomy	2	2	2
Dissection	4	4	4
Microscopy and Histology .	2	2	—
Laboratory	3	3	—
Embryology	—	—	3
Laboratory	—	—	2
Comparative Physiology . .	1	1	1
Breeds and Breeding . . .	2	2	2

<i>Second Year.</i>	1st Term.	2d Term.	3d Term.
Organic and Physiological			
Chemistry	2	2	2
Anatomy	1	1	1
Dissection	4	4	4
Comparative Physiology . .	1	1	—
Laboratory	—	2	—
Pharmacology	1	1	1
Pharmacy	2	—	—
Therapeutics	—	—	1
Medicine	3	3	3
Surgery, General	5	Special	3 Obstetrics
Sanitary Science, Zymotics .	2	Obstetrics	2 Jurisprudence
Bacteriology	1	1	1
Laboratory	2	2	2
Clinics, medicine, surgery .	3	3	3

<i>Third Year.</i>	1st Term.	2d Term.	3d Term.
Medicine	3	3	3
Clinics, medicine, surgery .	6	6	6
Surgery	5	3	5
Toxicology	—	Zootechnics	2
Sanitary Science, Parasites .	2	2	2
Pathology	2	1	—
Laboratory	—	1	—
Meat Inspection	—	—	1
Laboratory	—	—	1
Research and Thesis	3	3	3

Chemistry.

In the Department of Chemistry, the Veterinary Student will take :

1. Course 1 in Inorganic Chemistry (page 130).
2. Course 20 in Organic Chemistry (page 131).
3. Course 44 in Toxicology (page 134).
4. Course 45 in Physiological Chemistry. Two hours. 4:30 p. m.

Winter and spring. Professor CALDWELL.

Anatomy.

Of the following courses, the two first are required of the veterinary students ; the others are general courses :

1. General and descriptive veterinary anatomy. T., Th., 9. Fall,

winter and spring. Six hours. Two lectures and laboratory work. Dr. HOPKINS and demonstrators.

2. Descriptive veterinary anatomy. W., 9. Fall, winter and spring. Five hours. One lecture and laboratory work. Dr. HOPKINS and demonstrators.

This course must be preceded by course 1.

3. Anatomical methods and gross anatomy. S., 12. Fall term. Three hours. One lecture and laboratory work. Dr. HOPKINS.

4. Advanced Anatomy. S., 12. Winter term. Three hours. One lecture and laboratory work. Dr. HOPKINS.

Course 4 must be preceded by course 3 or its equivalent.

5. Human anatomy. Laboratory work throughout the year. Dr. HOPKINS.

This course is open to those who have had one or more of the preceding courses.

6. Research and thesis. Three hours throughout the year. Dr. HOPKINS.

Comparative Physiology.

1. Required of the first year veterinary students, and treats of the digestive functions, circulation, respiration, and excretion. The work given in this course precedes quite logically that of Pharmacology. Lectures one hour each week through the year. F., 10. Dr. FISH.

2. The functions of the muscular and nervous systems and reproduction are considered in this course, which is a direct continuation of course one. Lectures one hour each week through the fall and winter terms. W., 10. Dr. FISH.

3. Practical work in the laboratory. Each student is required to prepare extracts of the various digestive juices and test their actions upon various kinds of food stuffs. A short course in urinalysis is also required in order that students may familiarize themselves with some of the more common but important changes occurring during health and disease. Experiments in blood pressure and upon the muscular and nervous systems will be carried on as time and opportunity permit. Winter term. Two hours. Dr. FISH.

4. Research and thesis. Three hours throughout the year. Dr. FISH.

Microscopy, Histology and Embryology.

1. The Microscope and Microscopical Methods. First half of fall term. Two hours. Two lectures and three hours of laboratory work. This course forms the basis for all the subsequent work given by the department. It is also designed to give a knowledge of the theory

and use of the microscope and its accessories which would be advantageous for the work of any department where the microscope is employed. M., W., 8. Professor GAGE and Instructor KINGSBURY.

This course counts for two hours for the term, although the work must all be done in the first five weeks.

2. Vertebrate Histology. Last half of fall term (3 hours) and the winter term (5 hours). Eight hours. Two lectures and three hours laboratory work. In this course are given the elements of the microscopic anatomy of the domestic animals and of man. It includes also methods of histologic investigation and demonstration. M., W., 8. Professor GAGE and Instructor KINGSBURY.

This is a continuation of course 1 and is open only to those who have taken course 1, and have taken or are taking courses in anatomy and physiology.

3. Vertebrate Embryology. Spring term. Five hours. Three lectures and two hours of laboratory work. This course deals with the elements and methods of embryology in man, the domestic animals and the amphibia. M., W., F., 8. Professor GAGE and Instructor KINGSBURY.

Course 3 is open only to those who have pursued courses 1 and 2. (The lectures alone may be attended by those who have taken courses 1 and 2 in Physiology and Vertebrate Zoology).

4. Research in Histology and Embryology. Laboratory work with seminary throughout the year. This course is designed for those preparing theses for the baccalaureate or advanced degrees and for those wishing to undertake special investigations in histology and embryology. Professor GAGE and Instructor KINGSBURY.

Course 4 is open only to those who have taken courses 1, 2 and 3, or their equivalent in some other University. Drawing (course 9, in Mechanical Engineering, or its equivalent) and a reading knowledge of French and German are indispensable for the most successful work in this course.

Subjects for baccalaureate theses should be decided upon if possible during the spring term of the junior year so that material in suitable stages of development and physiologic activity may be prepared.

5. Structure and Physiology of the Cell. Spring term. Two hours. Laboratory work with lectures. This course is designed for advanced students who wish to investigate cytological problems. Instructor KINGSBURY.

6. Advanced Microscopy. Spring term. Two hours. Laboratory work with lectures. In this course special instruction will be given in the theory and use of the more difficult and important accessories

of the microscope, *e. g.*, the micro-spectroscope, the micro-polariscope, the apertometer, the photo-micrographic camera and the projection microscope. Professor GAGE.

This course is open only to those who have taken course 1, and if photo-micrography is desired, an elementary knowledge of photography like that given in course 9, Department of Physics, is necessary.

7. Seminary. There will be a meeting of the department staff and students engaged in research, once in two weeks, for conference and report upon special investigations.

Breeds and Breeding.

The courses in the College of Agriculture attended by veterinary students are as follows :

3 (in part). The horse, breeds and breeding, feeding, education, care and driving. Fall term. Two hours. Professor ROBERTS.

10. Animal Industry. Principles of breeding, history and development, improvement and creation of dairy and beef breeds of cattle; principles of feeding, care, selection and management of dairy and beef cattle. Winter and spring terms, Two hours. Practice, one hour by appointment, for those electing it. Assistant Professor WING.

Pharmacology.

1. The Materials of Medicine. A study of the uses and actions of the various drugs and their preparation. A varied collection of the crude drugs is available and examined at the recitations. The course is conducted partly in the form of recitations and partly in the form of lectures. One hour each week throughout the year. M., 10. Dr. FISH.

2. Pharmacy. Each student is required to make those preparations which are most commonly used in practice; tinctures, fluid extracts, balls, powders, ointments, etc. In addition to this each student will have practical experience in writing and compounding prescriptions. The importance of a discriminating and accurate system for dispensing medicines is kept well in mind. Two hours per week. M., 2-5., W., 2-4. Fall term. Dr. FISH.

3. Therapeutics. The treatment and cure of disease. This subject, standing along with pathology, unites physiology, anatomy, chemistry and botany with medicine and surgery. It is therefore desirable to have some knowledge of these branches in order to obtain a full appreciation of the means employed in the restoration of health. Lectures one hour each week. Spring term. W., 10. Dr. FISH.

This course must be preceded by the first year course in physiology or its equivalent.

4. Research and Thesis. Three hours throughout the year. Dr. FISH.

Veterinary Medicine, Zymotic Diseases, Veterinary Sanitary Science, Parasites and Parasitism.

1. Veterinary Medicine: Principles and Practice. M., W., F., 8. Fall, winter and spring. Three hours. Professor LAW.

This course extends over two years. Open to students who have taken the first year of the Veterinary Course.

2. Contagious diseases: Veterinary Sanitary Science. T., Th., 8. Fall, winter and spring. Two hours. Professor LAW.

(This course will be given to second and third year men in 1898-99. See the following).

3. Parasites and Parasitic Diseases. T., Th., 8. Fall, winter and spring. Two hours. Professor LAW.

(This course will be given to second and third year men in 1897-98. See the preceding).

4. Clinical Veterinary Medicine. Fall, winter and spring. Three hours. Professor LAW.

5. Clinical Veterinary Medicine. Fall, winter and spring. Six hours. Professor LAW.

6. Research and Thesis. Three hours throughout the year. Professor LAW.

7. Diseases of Farm Stock. S., 8. One hour throughout the year. Professor LAW.

Open to students in Agriculture, and dairy school students.

Surgery, Obstetrics, Zootechnics and Jurisprudence.

1. General Veterinary Surgery. Fall term. Five hours. M., T., W., Th., F., 11. Professor WILLIAMS.

2. Special Surgery (head and neck). Winter. Three hours. M., W., F., 11. Professor WILLIAMS.

3. Veterinary Obstetrics. Winter. Two hours. T., Th., 11. Professor WILLIAMS.

4. Veterinary Obstetrics. Spring. Four hours. T., W., Th., F., 11. Professor WILLIAMS.

5. Veterinary Jurisprudence. Spring. One hour. M., 11. Professor WILLIAMS.

[Courses 1-5 will be given to second and third year men in 1898-99. See under Course 11.]

6. Clinical Veterinary Surgery. Fall, winter and spring. Three hours. Professor WILLIAMS.

7. Clinical Veterinary Surgery. Fall, winter and spring. Six hours. Professor WILLIAMS.

8. Special Surgery (chest, abdomen and anterior limbs). Fall. Five hours. M., T., W., Th., F., II. Professor WILLIAMS.

9. Special Surgery (posterior limbs, skin). Winter. Three hours. M., W., F., II. Professor WILLIAMS.

10. Zootechnics. Winter. Two hours. T., Th., II. Professor WILLIAMS.

11. Special Surgery (genito-urinary organs, castration). Spring. Five hours. M., T., W., Th., F., II. Professor WILLIAMS.

[Courses 8-11 will be given to second and third year men in 1897-98. See under Course 5].

12. Research and Thesis. Three hours throughout the year. Professor WILLIAMS.

Comparative Pathology and Bacteriology and Meat Inspection.

1. General Pathology. Fall term. This course is open to students who have had Normal Histology and at least one year's work in Anatomy and Physiology. Lectures and recitations. Two hours. T., Th., 9. Professor MOORE.

2. Pathology of Infectious Diseases. Winter term. This course is open to students who have taken course 1 and have taken or are taking course 4. Lectures and laboratory work. Two hours. T., 9. Professor MOORE and Instructor REED.

3. Meat Inspection. Spring term. This course is open to students who have taken courses 1 and 2. Lectures and laboratory work. Two hours. T., 9. Professor MOORE and Instructor REED.

4. Bacteriology. Lectures and laboratory work. Three hours per week throughout the year. M., 9. Professor MOORE and Instructor REED.

The lectures alone may be taken as a one hour subject. For those who take the laboratory work this course must be preceded or accompanied by course 1 in Microscopy.

5. Research in Pathology and Bacteriology. Laboratory work with seminary throughout the year. Professor MOORE and Instructor REED. This course is designed for those preparing theses for the baccalaureate or advanced degrees and for those wishing to undertake original investigation in Pathology or Bacteriology. This course is open to students who have taken courses 1 and 2 if the work is in Pathology,

and 4 if in Bacteriology, or their equivalent in some other University. Elementary chemistry and a reading knowledge of French and German are indispensable for successful work in this course.

TUITION FEES AND OTHER CHARGES.

Tuition is free to *students, residents of the State of New York.*

To others the annual tuition fee in the State Veterinary College is \$100, \$40 to be paid at the beginning of the first term, \$35 at the beginning of the second, and \$25 at the beginning of the third. *These fees must be paid at the office of the Treasurer* within twenty days after registration.

Laboratory materials will be charged for at cost, and every person taking laboratory work must deposit with the Treasurer security for the materials to be used.

EXPENSES.

See Register, p. 44.

FELLOWSHIP AND PRIZES.

For fellowship see page 53.

THE HORACE K. WHITE PRIZES.—These prizes established by Horace K. White, Esq., of Syracuse, are awarded annually to the most meritorious students in the graduating class of the college, as follows: To the first in merit \$15; to the second in merit \$10.

THE COLLEGE OF ARCHITECTURE.

FACULTY.

JACOB GOULD SCHURMAN, A.M., D.Sc., LL.D., President.

CHARLES BABCOCK, A.M., Director of the College, Dean of the Faculty and Professor of Architecture, Emeritus.

ALEXANDER BUEL TROWBRIDGE, B.S. in Arch., Professor of Architecture in charge of the College of Architecture.

*CHARLES FRANCIS OSBRONE, Associate Professor of Architecture.

CLARENCE AUGUSTINE MARTIN, Assistant Professor of Architecture.

JOHN V VAN PELT, Architecte diplômé du Gouvernement de France, Assistant Professor of Architecture.

OLAF M BRAUNER. Instructor in Drawing.

EDWIN BARKER HIGBY, B.S., M.S., Instructor in Drawing.

ADMISSION.

The following subjects are required for admission: English, Geography, Physiology and Hygiene, History [the student must offer two of the four following divisions in History: (a) American, (b) English, (c) Grecian, (d) Roman], Plane Geometry, Algebra, Solid Geometry, Advanced Algebra, Plane and Spherical Trigonometry, and *either* Elementary French or Elementary German.

Special Students are not received in the College of Architecture.

[*For details as to subjects and methods of admission see pages 29-61.*

For admission to the freshman class communications should be addressed to the Registrar. See pages 29-40.

For admission to advanced standing from other colleges and universities, communications should be addressed to the College of Architecture. See pages 41 and 42.

For admission to graduate work and candidacy for advanced degrees, communications should be addressed to the Dean of the University Faculty. See pages 56-61.]

DESCRIPTION OF THE COURSE IN ARCHITECTURE.

It is a recognized fact that the most logical arrangement of studies in a regular course in Architecture is that arrangement which lays greatest stress upon those subjects that are not readily learned in an Architect's office. With this thought in mind the faculty of the College of Architecture have prepared the course which is described below in detail.

Inasmuch as modern educators have very generally accepted the statement that the best results are often gained through shoulder to shoulder teaching, the professors spend as much of their spare time as possible in the draughting rooms.

Planning and Designing.—The work of this department continues throughout four years. Periodical competitions are held which are graded in difficulty according to the standard of excellence reached by each class. In order to accentuate the relative importance of the study of a problem as compared to the finish of the final drawings, the students are encouraged to spend three-fourths of the allotted time in study before commencing the final rendering of the drawings. A complete and carefully selected collection of books and photographs is always at the disposal of the students to help them with the work. Drawings of some of the best work done at the Ecole des Beaux Arts are hung in the draughting rooms in order to keep constantly in evidence a high standard of excellence. Thorough criticism is given to each student at least twice a week and as much oftener as may be necessary.

Construction and Practice.—Under this head the students learn not only the theory of construction, but also its application as practiced in the best offices in the country. Each student in this work carries out to completion the working drawings and full size details of type buildings; types selected as representative of the class of problems the graduate is likely to meet in an office. The value of this work is recognized by a graduate as it enables him to make himself immediately useful and perhaps valuable to his first employer.

Freehand Drawing and Rendering.—Considerable importance is attached to this department as many an Architect having the very highest architectural ideals is badly hampered by insufficient preparation in the matter of drawing and technical rendering. Drawing is taught from the cast and from life. Color work is commenced as soon as facility is gained in the rendering of tone in other mediums. Water Color rendering as applied to perspectives is taught during the last part of the course.

History of Architecture.—This subject is taught by lectures illustrated by lantern slides, photographs and models. Drawings of an archaeological nature are required in this department in order to impress upon the student's memory the characteristic differences between the styles and especially between the closely related styles. The history of ornament and its application to the decoration of to-day is also a part of this course.

Theoretical and Applied Mathematics, Graphics and Applied Mechanics.—While greater stress has been laid on the aesthetic side of the profession, the disciplinary and preparatory studies have been given full consideration. Analytical Geometry, Calculus, descriptive Geometry, Stereotomy, Shades, Shadows and Perspective, Mechanics, French or German, Physics and Chemistry are all thoroughly and comprehensively taught.

Such subjects as heating, ventilating, electricity as applied to Architecture, Landscape gardening and those topics of interest which are intimately connected with the practice of the profession are taught through lectures given by resident professors and by eminent practicing architects invited to Cornell from the large cities.

EQUIPMENT.

The material equipment consists of large and commodious lecture rooms and draughting rooms, a fine museum containing over five hundred models in wood, stone, and plaster, illustrating the various constructive forms of the different styles as well as the ornamental forms, mouldings, etc. There is also a collection of architectural photographs numbering about fifteen hundred, many of which are of large size. The architectural library contains many valuable works of reference and has all of the best known and most desirable professional books. The students have ready access to these during the entire course.

THE COURSE IN ARCHITECTURE.

Leading to the Degree of Bachelor of Architecture.

FRESHMAN YEAR.

For the Class of 1901 only.

	1st Term.	2d Term.	3d Term.
French or German	3	3	3
Mathematics	3	3	3
Chemistry	3	3	3
Architectural Drawing	3	3	2
Shades and Shadows	—	—	3
Building Mat'l and Const	—	—	3
Freehand Drawing	3	3	2
Hygiene	1	—	—
Drill and Gymnasium	2	4	2

SOPHOMORE YEAR.

For the Class of 1900 only.

	1st Term.	2d Term.	3d Term.
Physics	4	4	4
Water Color Drawing	—	1	2
Arch. History	5	5	5
Mechanics	3	—	2
Working Drawing	3	—	—
Details	—	3	—
Specifications	—	—	3
Descriptive Geometry	2	2	—
Figure Drawing	—	2	2
Structural Details	—	3	—
Stereotomy	—	—	2
Sketching	3	—	—
Drill	2	—	2

JUNIOR YEAR.

For the Class of 1899 only.

	1st Term.	2d Term.	3d Term.
Photography	—	—	2
India Ink Rendering	2	—	—
Pen Drawing	—	2	2
Greek and Roman Details	1	—	—
Designing	5	6	5
Construction	1	3	—
Ornament	2	2	—
Architectural History	3	3	—
Seminary	1	1	1
Heating and Ventilation	—	—	2
Modelling	—	—	2
Geology	3	3	2

SENIOR YEAR.

For the Class of 1898 only.

	1st Term.	2d Term.	3d Term.
Contracts	1	—	—
Landscape Gardening	1	—	—
Designing	10	10	9
Stereotomy	—	3	—
Professional Practice	—	—	1
Theory of the Arch	3	—	—
Modelling	—	—	2
Decoration	—	—	2
Construction	1	—	2
Seminary	—	2	—

COURSES OF INSTRUCTION.

[*These courses are provisional and subject to slight revision.*]

FRESHMAN YEAR.

1. Freehand Drawing. Fall, winter, and spring. M., T., Th., 2-4:30. Mr. BRAUNER.
2. Architectural Drawing. Fall and winter. T., Th., 9-12; W., 2-4:30. Spring. T., Th., 2-4:30. Mr. HIGBY.
3. Shades and Shadows. Spring. T., Th., 9-12; W., 2-4:30. Mr. HIGBY.
4. Building Materials and Construction. Spring. T., Th., F., 12. Assistant Professor MARTIN.

SOPHOMORE YEAR.

- 4b. Sterotomy. Spring. Two hours. Mr. HIGBY.
5. Water-color Drawing. Winter. W., 2-5. Spring. Two hours. W., F., 2-4:30. Mr. BRAUNER.
6. Figure Drawing. Winter. Th., 8-11. Spring. Two hours. M., T., Th., 2-4:30. Mr. BRAUNER.
7. Working Drawings. Details. Fall and winter. M., T., Th., 2-4:30. Specifications. Spring. M., W., 12 (with four hours additional writing each week.) Assistant Professor MARTIN.
8. Applied Mechanics. Spring. Three hours. M., W., F., 10-12. Assistant Professor MARTIN.
9. History of Architecture. Five hours throughout the year. Lectures. M., W., F., 9 (with six hours additional drawing or reading as assigned each week. Fall. Egyptian, Greek, and Roman. Winter. Byzantine and Romanesque. Spring. Gothic. Professor TROWBRIDGE.

JUNIOR YEAR.

10. India Ink Rendering. Fall. M., W., F., 3-5. Mr. HIGBY.
11. Greek and Roman Detail. Fall. T., Th., 2-5. Mr. HIGBY.
12. Pen Drawing. Winter. M., W., 9 and 11; T., 9-12. Spring. S., 9-12. Mr. ———.
13. Advanced Building Construction. Fall and winter. W., F., 2-5; S., 10-1. Assistant Professor MARTIN.
14. Seminary. Fall and winter. S., 9. Spring. Th., 2. Assistant Professor MARTIN.
15. Heating and Ventilating. Spring. T., Th., 4. Professor CARPENTER.

16. Design. Fall. Preliminary studies in the application of certain phases of European architecture to American practice. Daily ex. S., 9-12. Winter. Greek and Roman composition. Th., F., 9-12; M., T., Th., 2-5. Spring. Studies in Italian and French Renaissance. Daily ex. S., 9-12. Assistant Professor VAN PELT.

17. Ornament. Fall, winter, and spring. Lectures. T., 12. Drawing (at hours to be assigned). Professor TROWBRIDGE and Mr. BRAUNER.

18. History of Architecture. Fall. Renaissance. Winter. Modern. M., W., F., 12. Professor TROWBRIDGE.

SENIOR YEAR.

19. Contracts. Fall. M., 2. Professor TROWBRIDGE.

20. Fire-proof Construction. Fall. One hour. Assistant Professor MARTIN.

21. Seminary. Winter. Th., 9. Assistant Professor MARTIN.

22. Stereotomy. Winter. Mr. HIGBY.

23. Landscape Gardening. Fall. W., 2. Professor BAILEY and Assistant Professor VAN PELT.

24. Design. Fall. M., W., F., 10-1, 3-5; T., Th., 11-1, 2-5. Exercises in Romanesque and Gothic archæology. Winter. M., W., F., 9-12, 2-5; S., 9-12. Advanced studies in Italian and French Renaissance. Spring. M., W., F., 9-12, 2-5; T., Th., 9-12. The graduation design (including decoration). Assistant Professor VAN PELT.

25. Construction Problems (in connection with the graduation design). Spring. T., Th., 2-4; S., 9-12. Assistant Professor MARTIN.

26. Professional Practice. Spring. Th., 12. Professor TROWBRIDGE.

COLLEGE OF CIVIL ENGINEERING.

FACULTY.

- JACOB GOULD SCHURMAN, A.M., D.Sc., LL.D., President.
- ESTEVAN ANTONIO FUERTES, Ph.D., C.E., M.A.S.C.E., Director of the College, Dean of the Faculty, and Professor of Sanitary Engineering.
- IRVING PORTER CHURCH, C.E., Professor of Applied Mechanics and Hydraulics, in charge of the College Library and the Hydraulic Laboratories.
- CHARLES LEE CRANDALL, C.E., Professor of Railway Engineering and Geodesy, in charge of the Geodetic Laboratory and Instrumental Equipment.
- HENRY SYLVESTER JACOBY, C.E., Associate Professor of Bridge-Engineering and Graphics, in charge of the Museums.
- FRED PUTNAM SPALDING, C.E., M.A.S.C.E., Assistant Professor of Civil Engineering, in charge of the Cement and Masonry Laboratories.
- CHARLES WORTHINGTON COMSTOCK, Met.E., M.C.E., Instructor in Civil Engineering, in charge of the Experimental Laboratory.
- WILLIAM ELTON MOTT, S.B., Instructor in Civil Engineering, in charge of the Junior Laboratory.
- HENRY NEELY OGDEN, C.E., Instructor in Civil Engineering, in charge of the Sanitary Laboratory.
- JOHN FILLMORE HAYFORD, C.E., Instructor in Civil Engineering, in charge of the Astronomical Equipment.
- JOHN THOMAS PARSON, Instructor in Civil Engineering, in charge of the Photographic Laboratory and Drawing Collections.
- EARL BRINK LOVELL, C.E., Instructor in Civil Engineering, and Assistant in the Laboratories.
- WILLIAM ORLAND STUBBS, Mechanician to the College of Civil Engineering.
-

Members of the Faculty of Arts and Sciences in whose courses the students of this College receive non-professional instruction. Arranged in the order of seniority of University appointments :

- GEORGE CHAPMAN CALDWELL, B.S., Ph.D., Professor of Chemistry.
- THOMAS FREDERICK CRANE, A.M., LL.D., Professor of Romance Literature.
- HORATIO STEVENS WHITE, A.B., Professor of German Literature.
- EDWARD LEAMINGTON NICHOLS, B.S., Ph.D., Professor of Physics.
- EDWARD HITCHCOCK, Jr., A.M., M.D., Professor of Physical Culture.
- JAMES MORGAN HART, A.M., J.U.D., Professor of Rhetoric and English Philology.
- JEREMIAH WHIPPLE JENKS, A.M., Ph.D., Professor of Political Economy, etc.
- LUCIEN AUGUSTUS WAIT, A.B., Professor of Mathematics.
- GEORGE FRANCIS ATKINSON, Ph.B., Professor of Botany.
- RALPH STOCKMAN TARR, B.S., Professor of Geology.
- WALTER SCRIBNER SCHUYLER, Captain, U.S.A., Professor of Military Science and Tactics.
-

- ALMON HOMER FULLER, C.E., Fellow in Civil Engineering.
- EDWARD ASA BARNES, C.E., Scholar in Civil Engineering.

SPECIAL LECTURERS FOR 1897-98.

The non resident lecturers before the College of Civil Engineering are as follows :

- C. PURDY, C.E., "The Construction of High Buildings."
- PEMBERTON SMITH, C.E., "Experiments Upon Car Wheels."
- O. H. TITTMANN, Assistant in charge U. S. Coast and Geodetic Survey Office, "Standards of Weight and Measure."
- CHARLES HANSEL, C.E., "Safety Appliances for Railways."
- E. D. PRESTON, C.E., Executive Officer U. S. Coast and Geodetic Survey, "The Transcontinental Arc."
- JAMES H. FUERTES, C.E., "The Water Supplies of European Cities."
- ARTHUR KITSON, C.E., "Fuel Gas."

NEW YORK STATE WEATHER BUREAU.

STATE DEPARTMENT OF AGRICULTURE.

(Coöperating with the National Weather Service.)

CENTRAL OFFICE AT THE COLLEGE OF CIVIL ENGINEERING OF
CORNELL UNIVERSITY.

(Under Chapter 338 of the Laws of 1893.)

For the collection of data, experimentation and research, and the dissemination of information useful to agriculture and commerce, with the coöperation of at least one observer in each Congressional District.

OFFICERS.

The Hon. CHARLES A. WIETING, Commissioner of Agriculture,	<i>Albany</i>
Professor E. A. FUERTES, Director,	<i>Cornell University</i>
EBENEZER T. TURNER, C.E.,	<i>Meteorologist</i>
WILLIAM O. KERR,	<i>Expert in charge of Instruments</i>
ROBERT H. HARDING, U. S. Weather Bureau, Assistant to Director	
RODOLPHUS T. CONOVER,	<i>Observer</i>

GENERAL PLAN OF STUDIES.

The courses of preparatory and professional studies have been planned with a view to laying a substantial foundation for the general and technical knowledge needed by practioners in civil engineering ; so that our graduates, guided by their theoretical education and as much of engineering practice as can be taught in schools, may develop into useful investigators and constructors.

The facilities for instruction and for advanced investigations are believed to be thorough and efficient. Laboratory work is required of the student in chemistry, mineralogy, geology, physics, and civil engineering ; for which purpose all the libraries, collections, and laboratories of the University are open to the students of this college.

The work of the undergraduate student is based upon an extended course upon the mechanics, and the graphics and economics of engineering. The object aimed at is to give as thorough a preparation as possible for the general purposes of the profession in the following subjects : the survey, location, and construction of railroads, canals, and water works ; the construction of foundations in water and on

land, and of superstructures and tunnels ; the survey, improvements, and defenses of coasts, and the regulation of rivers, harbors and lakes ; the astronomical determination of geographical coördinates for geodetic and other purposes ; the application of mechanics, graphical statics, and descriptive geometry to the construction of the various kinds of right and oblique arches, bridges, roofs, trusses, suspension and cantilever bridges ; the drainage of districts, sewerage of towns, and the reclaiming of lands ; the design, construction, application and tests of wind and hydraulic motors, air, electrical and heat engines, and pneumatic works ; the preparation of detail drawings, of plans and specifications, and the proper inspection, selection, and test of the materials used in construction. A course of lectures is given in engineering and mining economy, finance and jurisprudence. The latter subject deals in an elementary manner only, with the questions of easements and servitudes, and the ordinary principles of the laws of contracts and riparian rights. A course in political economy extending over one year, of three lectures per week, is given for the purpose of elucidating the economic value of engineering enterprises.

To the fundamental instruction of a general undergraduate course, many special courses have been added for graduates desiring advanced study in the separate branches of their profession. Admission to these courses is open to civil engineers of this or other institutions having undergraduate courses similar to our own. Advanced and special instruction is offered in the following subjects : bridge engineering, railroad engineering, sanitary, municipal, hydraulic and geodetic engineering. The object of this instruction is to provide the young graduate with the means of prosecuting advanced investigations after such experience in professional life as may lead him to decide in the choice of a specialty. These same courses are open to teachers and professional men in a more advanced form and with larger liberty in the use of laboratory equipment. Lectures in the museum and laboratories are given to these students for the purpose of directing and aiding their original researches. All graduate work may alternate with a limited number of elective studies in other departments ; but the choice of electives implies suitable preparation for their prosecution, and must, besides, meet with the approval of the Director of the College.

The College of Civil Engineering is quartered in a substantial brown stone structure, two hundred feet long and seventy feet wide, specially designed for the purposes of the college. In addition to the laboratories and museums, the building contains the working library of the

college, aggregating about three thousand volumes, reading-rooms, class rooms, and draughting rooms. The building contains also the offices of the professors, the central office of the Commissioners of the State Meteorological Bureau, and the meteorological observatory of the department of civil engineering. The astronomical department of this college is housed in an observatory containing all the instruments required to find time, latitude, longitude and azimuth. The instruments are duplicates, in the main, of similar ones in use by the U. S. Coast and Geodetic Survey.

LABORATORIES.

THE CIVIL ENGINEERING LABORATORIES located within the building cover a floor area of about fifteen thousand square feet. They comprise :

1. A GENERAL LABORATORY containing a large collection of machines and apparatus for the experimental study of subjects connected with the theoretical instruction of the lecture-rooms, and as preparation for the special laboratories.

2. AN HYDRAULIC LABORATORY with complete appliances for determination of "efficiency"; piping, mouth-pieces, and special castings, for the derivation of coefficients; weirs provided with all forms and heights of notches and orifices; gauges, electrical and automatic devices for the most refined measurements of weights, pressures, velocities, equilibrium, viscosity, efflux in closed and open conduits, water reaction, etc. On the south bank of Fall Creek another laboratory is under way consisting of a canal about five hundred feet long, twenty feet wide and with ten feet of water depth. It is provided with waste and calibrating weirs at the upper end, and through and under its center line, a pipe three feet in diameter will tap a steel stand pipe six feet in diameter and seventy feet high. The stand pipe can be fed at will from the canal directly, or from the pipe laid under the canal. The six feet pipe pierces the roof of a building which will house nearly all the machinery for experiments with water motors; and by means of reducers, the coefficients of efflux for pipes varying from four feet to six inches in diameter can be derived for suitable lengths and all conditions of surface and alignment. This house will also supply power for the maneuvers and apparatus in the canal above. Half way up, above the lower laboratory, a turret-like structure built around the stand pipe and reached by spiral stairs, will supply orifices of all sorts for experiment with thin plates, and short tubes and nozzles, valves and elbows. The canal will be used for experiments

upon the motion of water in open channels ; upon the regulation of weirs, the relative conditions of the dragging and suspending power of running water ; the resistance of water to the motion of boats, as to their form, size, surface condition and ratio of their cross-section to that of the canal ; experiments upon the motion of sewage as to diameter and grade of pipes, and the effect of flushing ; and in addition to numberless experiments of much importance, this canal provides both material and problems for study in connection with the pollution of streams, purity of filter effluents and other special features of the sanitary laboratories described further on.

3. A CEMENT LABORATORY provided with automatic machines for the establishment of standard tests. The furniture of this laboratory has been designed by specialists in view of its needs, and what has been done already at the great laboratories of Professors Tetmayer and Bauschinger, at Zurich and Munich. The standard conditions that are aimed to be obtained in all tests, are nearly independent of human agencies ; and from the sifting of the cements, through the operations of moulding, mixing, condensing, and testing, to even portions of the computations, every manœuvre in this laboratory is done by machinery. The time of setting of cements is obtained by a machine describing curves characteristic of their nature.

4. A BRIDGE LABORATORY for the study of stresses in many types of trusses, the determination of the effect of permanent and variable strains upon the nature and requirements of bridge designs and their details, etc. This laboratory has under way important investigations, and has lately been fitted with an original apparatus of great accuracy for determining the compressibility and modulus of elasticity of stones.

5. THE GRAVIMETRIC LABORATORY where cold and hot pendulums swing in connection with other instruments of precision. The college mechanician has now completed a set of half second pendulums for field work determinations of the force of gravity, like the extremely accurate ones devised by President Mendenhall for the U. S. Coast Survey, with improvements suggested by previous experience with them.

6. A GEODETIC LABORATORY for the determination of the values and errors of graduation of circles and levels of high precision, fitted with level testers, collimators, cathetometers, etc., etc.

7. A MAGNETIC LABORATORY in which is acquired the skill necessary to use the Kew magnetometer and Barrow's circle. The instrumental constants are derived in an isolated "copper house"; but the magnetic quantities are obtained each year, by the students in civil

engineering, at the astronomical stations of the systematic survey of the State. This work has been carried on since 1874 under the auspices of Cornell University.

8. A METRIC LABORATORY for the absolute comparison of lengths provided with line and end comparators and dividing engines with independent microscopes mounted on isolated piers. This room is built with hollow double walls, and provision has been made to maintain it at a constant temperature. It has been constructed with great care, and contains a four meter comparator of extraordinary precision. Telescopic observations may be made through tubes in the walls, which avoid the necessity of entering the room, thus disturbing its temperature. In this laboratory are placed many other machines and apparatus for experimentation in such portions of optics, thermodynamics, etc., as form special parts of the educational equipment of the engineer.

9. A BACTERIOLOGICAL LABORATORY in which students may become acquainted with bacterial forms and such portions of the subject as bear upon sanitary engineering. The optical apparatus has been expressly manufactured for us by Reichert of Vienna; and, as the result of consultation with biologists, physicians, and sanitary engineers, the balance of the equipment for the special purposes of this laboratory has been made by Dr. Rohrbeck of Berlin. With these exceptions the equipment contains apparatus specially manufactured by the mechanician of the college.

10. A PHOTOGRAPHIC LABORATORY for reproducing the appearance of tested specimens, for the purposes of the lecture-room, as aid in topographical surveys, and for the distribution, to graduates and purchasers, of reprints of the great collection of progress photographs of engineering structures owned by this college.

11. AN ASTRONOMICAL LABORATORY near the main building, mounted on brick piers, contains an astronomical transit by Troughton and Sims, provided with two collimators; a sidereal clock; a four-and-half inch Clark equatorial; two large altazimuths reading to seconds by levels and micrometers; and two three-and-three-eighths inch zenith telescopes by Fauth, but modified by the mechanician of the college, besides sextants, chronographs, chronometers, etc.

THE MUSEUM OF THE COLLEGE OF CIVIL ENGINEERING contains the following collections 1. The Muret collection of models in descriptive geometry and stone cutting. 2. The DeLagrange general and special models in topography; geognosy, and engineering. 3. The Schroeder models in descriptive geometry and stereotomy with over fifty brass and silk transformable models made in this college after the

Olivier Models. 4. The Grund collections of bridge and track details, roofs, trusses, and masonry, supplemented by similar models by Schroeder and other makers. 5. A model railroad bridge of twenty-five feet span, the scale being one fourth of the natural size, and a numerous collection of models of track details. 6. The Didgeon collection of movable dams and working models in hydraulic engineering. 7. Working models of water wheels, turbines, and other water engines. 8. Several large collections of European and American photographs of engineering works during the process of construction, and many other photographs, blue prints, models and diagrams. 9. An extensive collection of instruments of precision, such as a Troughton and Sims astronomical transit; a universal instrument by the same makers, reading to single seconds; sextants, astronomical clocks, chronographs, a Negus chronometer, two equatorials—the larger having an objective, by Alvan Clark, four and a half inches in diameter, two large zenith telescopes of improved construction for latitude work, by the eye and photographic methods, spherometers and other instruments, like pier collimators, etc., necessary to complete the most efficient equipment of a training observatory. 10. A geodesic collection, consisting of a four meter comparator of original design, built at this college of the University, and believed to be the most accurate instrument of precision in existence for the determination of co-efficients of expansion; a set of improved pendulums for gravimetric investigations; a secondary base line apparatus made under the direction of the Coast Survey; two new base line bars designed and constructed in the laboratories of this college and all the portable astronomical and field instruments needed for extensive triangulations, including sounding machines, tachometers, deep water thermometers and heliotropes. 11. Among the usual field instruments, there is nearly every variety of engineers' transits, theodolites, levels, solar and other compasses, omnimeters and tachometers, with a large number of special instruments, such as planimeters, pantographs, eliptographs, arithmometers, computing machines, altazimuths, sextants, hypsometers, and self recording meteorological instruments of all descriptions. 12. A very complete set of all appliances and instruments for making reconnaissances in topographical, hydrographical and mining surveys, in addition to the instrumental equipment which is common to the museums and the twelve engineering laboratories of this College, described above.

REQUIREMENTS FOR ADMISSION.

The following subjects are required for admission: English, Geography, Physiology and Hygiene, History, [the student must offer two of the four following divisions in History: (a) American, (b) English, (c) Grecian, (d) Roman,] Plane Geometry, Elementary Algebra, Solid Geometry, Advanced Algebra and Plane and Spherical Trigonometry and *either* Elementary French or Elementary German. See pages 37 and 38.

This College admits as *Special Students* only graduates of other institutions pursuing advanced work, when the applicants are not candidates for a degree. See page 40.

[For details as to subjects and methods of admission see pages 29-61.

For admission to the freshman class communications should be addressed to the Registrar. See pages 29-40.

For admission to advanced standing, from other colleges and universities, communications should be addressed to the College of Civil Engineering. See pages 41 and 42.

For admission to graduate work and candidacy for advanced standing, communications should be addressed to the Dean of the University Faculty. See pages 56-61.]

UNDERGRADUATE COURSE.(*)

Four years of study leading to the degree of Civil Engineer, giving a condensed synopsis of the entire general nature of the studies.

<i>Freshman Year.</i> †	1st Term.	2d Term.	3d Term.
Mathematics	5	5	5
Chemistry	3	3	3
Lettering	-	3	1
Linear Drawing	3	-	-
Tinting and Graining	2	-	-
Pen Topography	-	2	-
Land Surveying	-	-	4
Colored Topography	-	-	2
Botany	2	-	-
Hygiene	1	-	-
Architectural Drawing	-	-	1
Drill and Gymnasium	2	4	2

* All elections must be made by the student at the beginning of the year, with the previous approval of the Director, who will issue registration cards, without which neither memberships in the classes, nor the right to enter examinations will be acquired.

† The figures after each subject indicate the number of University exercises per week held on the subject.

<i>Sophomore Year.</i>	1st Term.	2d Term.	3d Term.
Calculus	5	5	—
Physics	4	4	4
Structural Metals	—	—	2
Geology	3	3	3
Political Economy	3	3	3
Descriptive Geometry	2	2	2
Surveying	—	—	3
Highway Construction	—	—	1
Architectural Drawing	—	1	—
Drill	2	—	2

<i>Junior Year.</i>	1st Term.	2d Term.	3d Term.
Mechanics	5	5	4
Structural Details	—	3	—
Geodesy	5	—	—
Railway Location, etc.	3	4	2
Bridge Stresses	—	—	4
Topographical Practice	—	—	3
Civil Construction and Cement Laboratory. }	—	3	3
Engineering Laboratory	2	3	—

<i>Senior Year.</i>	1st Term.	2d Term.	3d Term.
Bridge Design	3	—	—
Survey of Central N. Y.	—	—	3
Spherical Astronomy	4	—	—
Practical Astronomy	2	—	—
Thesis	—	2	2
Engineering Laboratory	—	1	1
Theory of the Arch	3	—	—
Hydraulics	4	—	—
Hydraulic Engineering	—	3	—
Stone Cutting	—	3	—
Cartography	—	—	2
Hydraulic Motors	—	3	—
Sanitary Engineering	—	—	3
Geodetic Computation	—	—	3
Elective	2	2	2
Special Laboratory work	—	3	3
Military Science	—	2	—

N. B.—During the entire senior year the following advanced subjects marked "Elective" and "Special" above may be elected with the consent of the Director, by special registration in this college, with credits as there indicated: Astronomy, geodesy, mechanics, hydraulic engineering, (rivers, canals, harbors, irrigation, water-works); meteorology, sanitary engineering, (habitations, quarantine, drainage, sewers, purification of water, pavements, parks, crematories, statistics); municipal engineering, (lighting, fire protection, building regulations, scavenging, paving, property records, assessments, fran-

chises, administration of municipal bureaux); railway engineering, (elevated, surface, and underground railroads, railway financing, and railway jurisprudence); bridge engineering; highway engineering and construction; masonry and foundations; contracts and specifications; dynamo laboratory. These studies may be taken separately or in groups, and with or without relation to such of them as may be taken in the College of Law or in other branches of the University; their aim is to enable the student to choose such subjects for advanced work as may be most useful in direct lines of professional specialties.

The College reserves the right to withdraw any elective course (see courses of instruction, C. E., 34-43) which is not chosen by a sufficient number of students.

Monthly reports of work done on thesis will be required; and in the case of laboratory work, a written report upon the experiments or investigations assigned to the student must be handed, at the end of each term, to the officer in charge of the subjects treated in the laboratories.

COURSES OF INSTRUCTION.*

The numbers following the names of instructors refer to the rooms in the College of Civil Engineering.

FRESHMAN YEAR.

1. Lettering. Winter term. Drawing, nine hours per week. M., 10-1, 2-4; T., 11-1; W., 10-1; Th., 9-12; F. 9-11; S., 11-1. Mr. PARSON, 23. Spring term. Drawing, three hours per week. M., T., 10-1. Mr. PARSON, 23.

2a. Linear Drawing. Fall term. Drawing, nine hours per week.

2b. Tinting and Graining. Fall term. Drawing, six hours per week. M., 10-1, 3-5; T., 9-1, 2-5; W., 10-1; Th., 9-12, 2-5; F., 9-12, 3-5; S., 9-1. Mr. PARSON, 23.

4. Pen Topography. Winter term. Drawing, six hours per week. T., 9-11, 2-4; Th., 2-4; F., 11-1, 2-4; S., 9-11. Mr. PARSON, 23.

5. Land Surveying. Spring term. Lectures, recitations, and field work, eight hours per week. M., W., 9; T., Th., 2-5. Mr. HAYFORD, 34. T., F., 9; T., Th., 2-5. Mr. LOVELL, 32.

6. Colored Topography. Spring term. Drawing, six hours per week. M., 3-5; F., 9-1, 3-5; S., 9-1. Mr. PARSON, 23.

8. Architectural Drawing. Spring term. Drawing, three hours per week. W., 10-1; Th., 9-12. Mr. PARSON, 23.

* All electives in the various courses must be chosen by the student at the beginning of the year with previous approval of the Director.

SOPHOMORE YEAR.

3. Descriptive Geometry. Fall, Winter, and Spring terms. Recitations, two hours per week. M., W., 9, 12. Associate Professor JACOBY, 32. M., W., 9, 10; T., Th., 9. Mr. OGDEN, 44. T., Th., 9, 10. Mr. HAYFORD, 32, 33. M., W., 9, 10; T., Th., 8, 9. Mr. LOVELL, 33. *Original Problems*. Two hours per week. T., 8-10; S., 9-11. Associate Professor JACOBY, 31. T., Th., 10-12; F., 9-11, 11-1. Mr. OGDEN, 42. F., 9-11. Mr. HAYFORD, 31. T., Th., 10-12. Mr. LOVELL, 31.

5a. Higher Surveying. Spring term. M., 12; S., 8-12, 1-5. Mr. OGDEN, 43. Mr. LOVELL.

7. Mechanics of Engineering. Fall, Winter and Spring terms. Lectures and recitations daily except S. 10. Assistant Professor SPALDING, 32. 8, 10, 11. Mr. MOTT, 43. 9. Mr. COMSTOCK, 43. 11. Mr. HAYFORD, 32.

8. Architectural Drawing. Winter term. Drawing, three hours per week. F., 10-1; S., 9-12. Mr. LOVELL.

9. Structural Metals. Spring term. Lectures. M., T., W., 8. Mr. COMSTOCK, 45.

11. Highway Construction. Spring term. Lectures and recitations. Th., F., 8. Assistant Professor SPALDING, 45.

JUNIOR YEAR.

7. Mechanics of Engineering. Fall, Winter, and Spring terms. Lectures and recitations daily except S. 8. Professor CHURCH, 34. 8. Assistant Professsr SPALDING, 32.

10. Structural Details. Winter term. Lectures, one hour per week. Th., 9. Associate Professor JACOBY, 34. Computation and Drawing, five hours per week. T., 10-1; Th., 10-12. For Architects, F., 8-1. Associate Professor JACOBY, 26, 36.

12. Railway Location, Railway Construction, and Railway Economics. Lectures, recitations, drawing and field work. Fall term. Th., F., 10-1. Professor CRANDALL, 45. S., 8-6. Professor CRANDALL and Mr. LOVELL. Winter term. M., W., 9-1. Professor CRANDALL, 45, 46, 42. M., W., 11. Mr. LOVELL. Spring term. M., W., 9; F., 11. Professor CRANDALL, 45.

13. Bridge Stresses. Spring term. Lectures and recitations, five hours per week. Daily, ex. S 8, 10. Associate Professor JACOBY, 32, 45.

17. Civil Constructions. Winter term. Lectures, three hours per week. T., F., 9, Th., 12. Assistant Professor SPALDING, 34. Spring

term. Lectures, three hours per week, and Cement Laboratory two and a half hours per week. T., Th., F., 9; M., W., 2-4½. Assistant Professor SPALDING, 34, 4.

19. Geodesy. Fall term. Lectures and recitations five hours per week. M., T., W., 10; Th., F., 9. Professor CRANDALL, 45.

14. Topographical Practice, etc. Spring term. Two weeks' field work in the C. U. Survey of Central New York, twelve hours per day, and one week office work, six hours per day. Professors FUERTES, CHURCH, and CRANDALL, and Messrs. MOTT, COMSTOCK, and HAYFORD.

25. Engineering Laboratory. Fall term, two afternoons per week. Professor CHURCH. T., Th., 2-4½. Mr. MOTT, 2, 10, 14, 15. M., W., 2-4½. Mr. LOVELL, 2, 10, 14, 15. Winter term, two afternoons per week. Professor CHURCH. T., Th., 2-5¾. Mr. MOTT. M., W., 2-5¾. Mr. HAYFORD.

SENIOR YEAR.

13. Bridge Designing. Fall term. Lectures and recitations, one hour per week. F., 9. Associate Professor JACOBY, 32. Computation and drawing, five hours per week. Th., 8-10; F., 10-1. Associate Professor JACOBY, 26.

14a. Geodetic Practice, etc. Spring term. Two weeks field work in the C. U. Surveys of Central New York, twelve hours per day. Office work, one week, five hours per day. Professors FUERTES, CHURCH, and CRANDALL.

15. Spherical Astronomy. Fall term. Lectures and computations. M., T., W., Th., 12. Professor FUERTES, 35. Laboratory work, one afternoon a week. M., T., W., Th., 2-5. Professor FUERTES, Messrs. COMSTOCK, OGDEN, and HAYFORD. Night observations, twice a week, 7-11. Professor FUERTES, Messrs. COMSTOCK, OGDEN and HAYFORD.

16. Stereotomy and Theory of the Arch. Fall term. Lectures and drawing, six hours per week. M., T., W., 8-10. Professor CRANDALL, 26.

18. Hydraulics. Fall term. Lectures and recitations. M., T., W., Th., 10. Professor Church, 34.

20. Theory of Oblique Arches. Masonry Designs, and Stone Cutting. Winter term. Lectures and designs, six hours per week. T., Th., 8-11. Professor CRANDALL, 26.

21. Hydraulic and other Motors. Winter term. Lectures and recitations. M., W., F., 10. Professor CHURCH, 34.

23. Hydrographic and Topographic Mapping. Spring term. Drawing, six hours per week. S., 8-1. Mr. COMSTOCK, 26.

24. Theses. Winter and Spring terms. The subject to be approved by the Director of the College.

25. Engineering Laboratory. Winter and Spring terms. One afternoon per week as assigned. Professors CHURCH and CRANDALL, Assistant Professor SPALDING, Mr. COMSTOCK and Mr. OGDEN, 2, 3, 4, 7, 8, 9.

26. Municipal and Sanitary Engineering. Spring term. Lectures. M., T., W., Th., 12. Professor FUERTES, 35.

28. Hydraulic Engineering. Winter term. Lectures. M., W., F., 12. Professor FUERTES, 35.

29. Geodetic Office Work. Spring term. Th., 8-11; F., 8-1. Professor CRANDALL, and Mr. COMSTOCK, 26.

32. Lectures by non-resident civil engineers on professional topics.

33. Special courses for graduates and advanced students, as may be arranged.

34. Mining. Fall, Winter and Spring terms. M., W., 11. Mr. COMSTOCK.

35. Metallurgy. Fall, Winter and Spring terms. T., Th., 11. Mr. COMSTOCK, 44.

36. Advanced Mechanics. Fall, Winter and Spring terms. M., W., 11. Professor CHURCH, 34.

37. Advanced Geodesy and Astronomy. Fall, Winter and Spring terms. M., W., 11. Professor FUERTES and Professor CRANDALL, 45.

38. Bridge Engineering. Fall, Winter and Spring terms. M., W., 11. Associate Professor JACOBV, 33.

39. Railway Engineering. Fall, Winter and Spring terms. T., Th., 11. Professor CRANDALL, 45.

40. Hydraulic Engineering. Fall, Winter and Spring terms. T., Th., 11. Professor FUERTES and Assistant Professor SPALDING, 35.

41. Sanitary Engineering. Fall, Winter and Spring terms. M., W., 11. Professor FUERTES and Mr. OGDEN, 44.

42. Masonry and Foundations. Fall, Winter and Spring terms. M., W., 11. Assistant Professor SPALDING, 35.

43. Special Laboratory Work. Winter and Spring terms. Seven and one-half hours per week. (a) Geodetic and Astronomic. (b) Hydraulic. (c) Sanitary. (d) Cement. (e) Testing Materials.

Course 43 may be taken with the approval of the Director, as well as some of the courses under the department of Physics, when the applicants have the necessary preparation.

DEGREES.

FIRST DEGREE.

The degree of *Civil Engineer, C.E.*, is conferred upon such candidates as may successfully complete the four year undergraduate course (see page 198) and present a satisfactory thesis, upon the recommendation of the faculty of the *College of Civil Engineering*, to the *Board of Trustees*.

GRADUATE COURSES AND ADVANCED DEGREES.

Graduate courses may be pursued by resident and non-resident graduates under the regulations mentioned on pages 56-61. Such courses are also open to graduates of any institution having an equivalent curriculum, when such graduates are accepted as candidates by the Faculty of this College. All graduate students are under the jurisdiction of the University Faculty.

The degrees of Master of Civil Engineering (M.C.E.), and Doctor of Philosophy (Ph.D.) are conferred after the conditions are fulfilled which are detailed on pages 60, 61.

For fellowships and scholarships, see pages 53-56.

PRIZES.

THE FUERTES MEDALS, founded by Professor E. A. Fuertes and consisting of two gold medals, will be awarded under the following conditions :

One of these medals will be awarded annually by the University Faculty to that student of the College of Civil Engineering who may be found, on graduating, to have maintained the highest degree of scholarship in the subjects of his course ; and the other medal will be awarded annually by the University Faculty to that graduate of the College of Civil Engineering who may write a meritorious paper upon some engineering subject tending to advance the scientific or practical interests of the profession of the civil engineer ; provided, however, that neither medal shall be awarded unless it appear to the University Faculty that there is a candidate of sufficient merit to entitle him to such distinction. Candidates will be nominated to the University Faculty by the College of Civil Engineering annually.

When no medal is awarded, the money thus left unexpended shall be added to the principal of the Fuertes fund ; or it may, at the discretion of the Board of Trustees, be given to aid needy and meritorious students of any course.

SIBLEY COLLEGE

OF MECHANICAL ENGINEERING AND THE MECHANIC ARTS.

FACULTY.

JACOB GOULD SCHURMAN, A.M., D.Sc., LL D., President.

ROBERT HENRY THURSTON, M.A., LL.D., Dr.Eng'g, Director of the College, Dean of the Faculty, and Professor of Mechanical Engineering.

JOHN LEWIS MORRIS, A.M., C.E., Sibley Professor of Practical Mechanics and Machine Construction.

ROLLA CLINTON CARPENTER, M.S., C.E., M.M.E., Professor of Experimental Engineering.

HARRIS JOSEPH RYAN, M.E., Professor of Electrical Engineering.

WILLIAM FREDERICK DURAND, Ph.D., Professor of Marine Engineering, and Principal of the Graduate School of Marine Engineering and Naval Architecture.

JOHN HENRY BARR, M.S., M.M.E., Associate Professor of Machine Design.

EDWIN CHASE CLEAVES, B.S., Assistant Professor of Freehand and Mechanical Drawing.

*HARVEY DANIEL WILLIAMS, M.E., Assistant Professor of Machine Design.

GEORGE ROBERT McDERMOTT, Assistant Professor of Naval Architecture.

HIRAM SAMUEL GUTSELL, B.P., A.M., Instructor in Industrial Drawing and Art.

GEORGE BURTON PRESTON, M.M.E., Instructor in Experimental Engineering.

JOHN S REID, Instructor in Mechanical Drawing and Design.

IRWIN JOHN MACOMBER, M.E., Instructor in Electrical Engineering.

ALFRED HENRY ELDREDGE, M.E., Instructor in Experimental Engineering.

* Absent on leave, 1897-98.

VICTOR TYSON WILSON, Instructor in Industrial Drawing and Art.

DAVID REID, Instructor in Mechanical Drawing and Design.

CHARLES EDWIN HOUGHTON, A.B., M.M.E., Instructor in Experimental Engineering.

EDWARD THOMAS ADAMS, M.M.E., Instructor in Machine Design.

OLIVER SHANTZ, M.E., Instructor in Experimental Engineering.

ADOLPH THEODORE BRUEGEL, M.M.E., Instructor in Machine Design.

HENRY HUTCHINS NORRIS, M.E., Instructor in Electrical Engineering.

EINAR FREDERICK BRAUNER, Instructor in Industrial Drawing and Art.

JAMES WISEMAN, Foreman of Machine Shop, and Instructor in Machine Construction.

WILLIAM HENRY WOOD, Foreman of Woodshop.

JAMES WHEAT GRANGER, Foreman in Forging.

JAMES EUGENE VANDERHOEF, Foreman in Foundry.

MARK WOODHULL ROE, M.E., Assistant in Experimental Engineering.

WILLIAM NICHOLS BARNARD, M.E., Assistant in Machine Design.

CLAYTON L STANTON, Assistant in Machine Shop.

GEORGE CONGER POLLAY, Assistant in Woodshop.

ROBERT VANDERHOEF, Assistant in Foundry.

FRANK STARKINS, Assistant in Machine Shop.

WILLIAM FREDERICK HEAD, Assistant in Forging.

WILLIAM FREDERICK RAYMOND, Mechanician in Sibley College.

SPECIAL LECTURERS, 1897-8.

CHAS. E. EMERY, Ph.D., New York, Progress in Mechanical Engineering.

A. E. KENNELLY, Ph.D., Phila., Ocean Telegraphy.

COL. H. E. PROUT, NEW YORK, Steel Rail Development.

A. J. WURTS, B.S., M.E., Pittsburg, Handling Electric Currents.

O. CHANUTE, C.E., Chicago, Aerial Navigation.

F. A. HALSEY, M.E., New York, Methods in Manufacturing.

W. A. ANTHONY, C.E., A.M., New York, Electrical Elevators.

W. C. BROWN, M.E., New York, Steam Pump Construction.

DEPARTMENT OF LIGHT AND POWER.

JOHN LEWIS MORRIS, A.M., C.E., Head of Department.

HARRIS JOSEPH RYAN, M.E., Electrician.

RICHARD HISCOCK, Chief Engineer and Assistant in Steam Engineering.

HORACE MARSHALL, Engineer of Light and Power Station.

ALONZO WHITLOCK, Lineman.

WILLIAM WESTCOTT, First Assistant Engineer.

ALBERT TUCKER, Second Assistant Engineer.

TRACEY HISCOCK, Assistant in Charge of Boilers.

THE SIBLEY COLLEGE of Mechanical Engineering and the Mechanic Arts receives its name from the late Hiram Sibley, of Rochester, who between the years of 1870 and 1887 gave one hundred and eighty thousand dollars towards its equipment and endowment. Mr. Hiram W. Sibley has added above fifty thousand dollars for later constructions. It now includes seven departments: Mechanical Engineering, Experimental Engineering, Electrical Engineering, Machine Design, Mechanic Arts or shop work, Industrial Drawing and Art, and a Graduate School of Marine Engineering and Naval Architecture.

1. *Department of Mechanical Engineering.*—The work of this department is conducted in connection with the several other departments to be presently described. The full course of instruction consists of the study, by text-book, or lectures, of the materials used in mechanical engineering; the valuable qualities of these materials being exhibited in the mechanical laboratory by the use of the various kinds of testing machines. The theory of strength of materials is here applied, and the effects of modifying conditions—such as variation of temperature, frequency and period of strain, method of application of stress—are illustrated. This course of study is accompanied by instruction in the science of pure mechanical kinematics, which traces motions of connected parts, without reference to the causes of such motion, or to the work done, or the energy transmitted. The study is conducted largely in drawing-rooms, where the successive positions of moving parts can be laid down on paper. It is illustrated in some directions by the set of kinematic models known as the Reuleaux models, a complete collection of which is found in the museum of Sibley College.

The study of machine design succeeds that of pure mechanism, just described, and is also largely conducted in the drawing-rooms.

The closing work of the course consists of the study, by text-book and lectures, of the theory of complete machines, as the steam-engine and other motors. The last term of the regular four-year course is devoted largely to the preparation of a graduating thesis, in which the student is expected to exhibit something of the working power and the knowledge gained during his course.

A graduating piece showing proficiency in drawing is also demanded of each student. Students are allowed, in their senior year, to begin to specialize somewhat, taking, for example, work in steam, in marine, in railway, or in electrical engineering, with specialists.

2. *Department of Experimental Engineering, or Mechanical Laboratory Instruction.*—The work in this department comprises a systematic course of instruction intended not only to give the student skill in the use of apparatus of exact measurement, but to teach him also the best methods of research. Its courses of instruction include the theory and use of machines for testing the strength, and determining other valuable properties, of the materials of construction, of lubricants, and of fuels, etc., the processes of belt-testing and of power measurement, and the standard system of gas and steam-engine and of steam-boiler test-trials. All students take part in this work and, when sufficiently expert, in commercial work of this kind, at the University and sometimes extensively in the large cities throughout the state and elsewhere.

3. *Department of Electrical Engineering.*—The student at the end of the third year of the course in Mechanical Engineering, may, if he chooses, substitute the special work in electrical engineering for the prescribed work of the regular course. This special work of the fourth year comprises the study, under the direction of the Professor of Electrical Engineering, of station design and construction, of the prime movers, the design and construction of electrical machinery, the study of the problems involved in the distribution of the electric light and the electrical transmissions of power, besides practice in every variety of measurement, computation and testing, as applied to the construction and maintenance of electric lighting and power plants and telephone and telegraph lines and cables, and to the purposes of investigation; while a large amount of work in the laboratories of the Department of Physics is given with special reference to the needs of the practical electrician.

Graduates in the course of Electrical Engineering are given the degree of Mechanical Engineer, as in the regular course, with a statement in the diploma that the student has elected the special work offered in this department.

*Electricians unfamiliar with engineering may pursue special work. Students entering the undergraduate courses for the purposes of the electrician, rather than those of the electrical engineer, should take the course leading to the degree of A.B., and should take its electives in physics. No student deficient in talent for either mathematics, physics, or the mechanic arts should attempt electrical engineering.

4. *Department of Mechanic Arts.*—The aim of the instruction in this, the department of practical mechanics and machine construction, is to make the student, as far as time will permit, acquainted with the most approved methods of construction of machinery. The courses are as follows :

Wood-working and Pattern-making : This course begins with a series of exercises in wood-working, each of which is intended to give the student familiarity with a certain application of a certain tool ; and the course of exercises, as a whole, is expected to enable the student to perform any ordinary operations familiar to the carpenter, the joiner, and the pattern maker. Time permitting, these prescribed exercises are followed by practice in making members of structures, joints, small complete structures, patterns, their core-boxes, and other constructions in wood. Particular attention is paid to the details of pattern-making.

Forging, Moulding and Foundry-work : These courses are expected not only to give the student a knowledge of the methods of the blacksmith and the moulder, but to give him that manual skill in the handling of tools which will permit him to enter the machine shop and there quickly to acquire familiarity and skill in the manipulation of the metals, and in the management of both hand and machine tools.

Ironworking : The instruction in the machine shop, as in the foundry and the forge, is intended to be carried on in substantially the same manner as in the wood-working course, beginning with a series of graded exercises, which will give the student familiarity with the tools of the craft, and with the operations for the performance of which they are particularly designed, and concluding by practice in the construction of parts of machinery, and, time permitting, in the building of complete machines which may have a market value.

5. *Department of Industrial Drawing and Art, (excluding Machine Design).*—Freehand Drawing and Art : The instruction begins with freehand drawing, which is taught by means of lectures and general exercises from the blackboard, from flat copies, and from models. The work embraces a thorough training of the hand and

eye in outline drawing, elementary perspective, model and object drawing, drawing from casts and sketching from nature. The course in freehand drawing may be followed by instruction in decorative art, in designing for textiles and ceramics, in modelling, and in other advanced studies introductory to the study of fine art.

Mechanical drawing: The course begins with freehand drawing, and in the latter part of this work considerable time is expected to be given to the sketching of parts of machines and of trains of mechanism, and, later, of working machines. The use of drawing instruments is next taught, and, after the students has acquired some knowledge of descriptive geometry and the allied branches, the methods of work in the drawing rooms of workshops and manufacturing establishments are learned. Line drawing, tracing and "blue printing", the conventional section-lining and colors, geometrical construction, projections and other important details of the draughtsman's work are practiced until the student has acquired proficiency.

Industrial Art.—Instruction in industrial and fine art, continuing through four years, is arranged for students having a talent for such work, and desiring to devote their time mainly to this subject. Modelling and landscape drawing and painting occupy the spring term. No degree is conferred, but certificates of proficiency may be given at the end of a course. Occasional general and public lectures on the history of art and the work of great artists are given.

6. *Department of Machine Design.*—The advanced instruction in the Department of Machine Design is developed directly out of the preceding courses and includes the tracing of curves and cams, the study of kinematics on the drawing board, tracing the motion of detail mechanism, and the kinematic relations of connected parts. This part of the work is accompanied by lecture-room instruction and the study of the text-book; the instructors in the drawing rooms being assisted by the lecture-room instructor, who is a specialist in his branch. The concluding part of the course embraces a similar method of teaching machine-design, the lecture-room and drawing-room work being correlated in the same manner as in kinematics or mechanics. The course concludes, when time allows, by the designing of complete machines, as the steam engine or other motor, or some important special type of machine. Students often make original designs, and not infrequently put on paper plans relating to their own inventions.

Besides the preceding undergraduate courses, graduate courses are arranged for students in mechanical or electrical engineering who desire further instruction in engineering.

SIBLEY COLLEGE.

THE GRADUATE SCHOOL OF THE MECHANICAL ENGINEERING OF RAILWAYS.

8. THE GRADUATE SCHOOL OF RAILWAY MECHANICAL ENGINEERING was authorized by the Board of Trustees, June, 1896, and was organized in February, 1898. Its purpose is to concentrate and systematize the work in the mechanical engineering of railway machinery previously constituting a subordinate part of the existing courses, and to offer special instruction to students who have completed a general course in technical institutions of high rank, and, furthermore, to members of the engineering profession desiring special knowledge in this field. For all such, in addition to instruction in this department of engineering of immediate practical value, courses of work are also available in other associated departments of the College and of the University, in such form and in such amount as will be best adapted to their necessities.

The courses in the School will have special relation to the design, the construction, the operation, and the test trials of locomotives, and other kinds of machinery employed in railroad operation. They will be particularly adapted to the needs of the young engineer seeking to find his way into the departments of construction of railways and into the positions, ultimately, of superintendents of shops and of motive power.

In addition to the courses offered in Sibley College, as purely professional, there will be found in the scheme of the special courses leading to advanced degrees, opportunities for pursuing work in economics, in law, and in allied professional and scientific departments, in all that great variety characteristic of the University.

The School will so arrange its work, also, as to connect closely with the undergraduate work of Sibley College. Students in the undergraduate courses may begin to specialize in their junior year and to increase considerably this specialization in their senior year. As laid out for such cases, the courses of undergraduate instruction will include the regular course in mechanical engineering, up to and including the junior year; and will involve special work, in preparation for the graduate courses, in the senior year. For juniors ahead of their courses, special work can usually be provided, as well as for seniors proposing to enter, after graduation, the Graduate School of Railway Mechanical Engineering.

7. THE GRADUATE SCHOOL OF MARINE ENGINEERING and Naval Architecture, which was established by the Board of Trustees in 1890, has for its object to provide courses of instruction and opportunities for research in such special branches of engineering as relate to the design, building, powering, and propulsion of vessels of any and all types. Students desiring to prepare for entrance into the engineer corps of the U. S. Revenue Marine, or—should opportunity hereafter permit—into the U. S. Naval Engineer Corps, will find in these courses of instruction precisely the kind of work needed. The course is so arranged that students during their senior year in mechanical engineering will be able to carry on in the School their special or elective work of that year. For the student entering Cornell University with Marine Construction as an objective point, the course for the first three years will be the general course in Mechanical Engineering, as given in the Register. For juniors who may be ahead of their course, however, or who may be allowed to take work outside of the regular schedule, special introductory work may be provided in Ship Drawing and Naval Architecture, and all juniors who purpose taking this course and who may have such time at their disposal, are urged to elect such special work.

[Circulars of the School will be sent on application.]

Special Students.—Special students are sometimes admitted who are expected to follow as closely as possible a course of instruction planned with reference to their needs. This instruction does not lead to a degree and is only intended for students who are unable to pursue a complete college course, or who desire special instruction in advanced and graduate work.

Non-Resident Lecturers, etc.—Supplementing the regular course of instruction, lectures are delivered from time to time by the most distinguished men and the great specialists of the profession. Extended "Inspection Tours" are made to the great cities and manufacturing establishments during the spring vacation, when sufficient numbers are enrolled.

Persons desiring more information in regard to any subject connected with Sibley College should address "The Director of Sibley College."

BUILDINGS AND EQUIPMENT OF SIBLEY COLLEGE.—The buildings of SIBLEY COLLEGE occupy a ground enclosed between East and Central Avenues, at the North end of the Campus, leased from the University for the purposes of the College, under an agreement with the late Hiram Sibley.

The two main buildings of the SIBLEY COLLEGE are each one hundred and sixty feet long, fifty feet in width, and three stories in height. They contain museums, the reading-room, drawing-rooms, large and well-lighted lecture-rooms, and the rooms of the different professors. The workshops are placed in separate buildings and consist of a machine shop, a foundry, a blacksmith shop, and a wood-working shop; and include rooms devoted to the storage of tools. Besides these there is an additional building, one hundred and fifty feet by forty in dimensions, and two stories in height, occupied by the laboratories of the department of experimental engineering. At the bottom of Fall Creek Gorge is the house protecting the turbines which supply the power ordinarily required for driving the machinery of the College, and the electric apparatus for lighting the campus and the buildings, and, near it, a steam pumping station used as a reserve when the power of the hydraulic station is unequal to the demand for water supply. The large engine and dynamo room, containing all the engines and dynamos employed in lighting the University, is adjacent to the shops, and beside the boiler-room in which are placed the 200 H. P. boilers furnishing steam to these and the experimental engines.

THE COLLECTIONS OF SIBLEY COLLEGE are of exceptional extent, value, and interest. The principal room on the first floor of one building is devoted to the purposes of a museum of illustrative apparatus, machinery, products of manufacturing, and collections exhibiting processes and methods, new inventions, forms of motors, and other collections of value in the courses of technical instruction. In this museum is placed a large Reuleaux collection of models of kinematic movements. Besides these are the Schroeder and other models, exhibiting parts of machinery, the construction of steam engines and other machines, and a large number of samples of machines constructed to illustrate special forms and methods of manufacture. Many of these machines and tools have been made in the University shops. The lecture-rooms of Sibley College, each being devoted to a specified line of instruction and list of subjects, are each supplied with a collection of materials, drawings, models, and machines, especially adapted to the wants of the lecturer. The course of instruction in mechanical engineering is illustrated by a fine collection of steam engines, gas and vapor engines, water-wheels and other motors, models and drawings of every standard or historical form of prime mover, of parts of machines, and of completed machinery.

The collections of the Department of Drawing and Art include a large variety of studies of natural and conventional forms, shaded and in outline, geometrical models, casts and illustrations of historical orna-

ment, and remarkably fine collections of casts, of pattern and other art work.

The workshops are supplied with every needed kind of machine or tool, including lathes, and hand and bench tools sufficient to meet the wants of two hundred students of the first year, in wood-working; in the foundry and forge, all needed tools for a class of over one hundred and fifty in the second year; in the machine shop, machine tools from the best builders, and a great variety of special and hand tools, which are sufficient for a class of one hundred and fifty in the third year, and as many seniors and graduate students.

The Department of Experimental Engineering possesses experimental engines and boilers, and other heat-motors, such as air and gas engines, and is well supplied with testing machines in great number and variety, as well as the apparatus required, as indicators, dynamometers, etc., for determining the efficiency and power of engines.

The Department of Electrical Engineering illustrates its work by a great variety of dynamos and motors, numerous collections of accessory apparatus, large numbers of working drawings of stations, "plants," motor and electrical machinery, and extensive collections of experimental machinery and apparatus of research.

THE SIBLEY COLLEGE MECHANICAL LABORATORIES constitute the department of demonstration and experimental research of Sibley College, in which not only instruction but investigation is conducted. They are supplied with the apparatus for experimental work in the determination of the power and efficiency of heat motors, and of the three turbines driving the machinery of the establishment; with a boiler-testing plant and instruments; and with twenty machines of the various standard types for testing the strength of metals, including machines of 50, 100, and 150 tons capacity; and one 60,000 and one 200,000-pound Emery machine, of extraordinary accuracy and delicacy. Sixteen steam-engines, nine air, oil, and gas engines, fourteen dynamometers, eight lubricant-testing machines, about fifty standard pressure gauges and an equally numerous collection of steam engine indicators, together with other apparatus and instruments of precision employed by the engineer in such researches as he is, in practice, called upon to make, are collected here. A large hydraulic "plant" is employed for experimental purposes and for research. All the motors of the University, and its boilers, amounting to 1000 horse-power, are available for test trials. The steam-engines are set up, with the heavy lighting dynamos, adjacent to the boilers; among them a 200 H. P. "experimental engine," and several of smaller power, including a 20 H. P. quadruple-expansion experimental engine and steam

boiler, designed and built by students, and arranged to use with steam at 500 pounds pressure, exhibiting an efficiency without precedent at its date.

THE LABORATORIES OF ELECTRICAL ENGINEERING, including the apparatus of the Department of Electrical Engineering of Sibley College and also that available in the Department of Physics, comprehend many special collections of apparatus. These collections include a great number of large and small dynamos of arc and incandescent lighting types, including a five-hundred light and a twenty-five-light Edison, two Thomson-Houston, three Weston, a Ball, a Mather, a Waterhouse third brush, a Gramme, a Siemens and Halske, a six hundred and fifty light Westinghouse alternate current machine and its complement of converters, and a Westinghouse forty arc-light alternate with its full complement of lamps, and a ten H. P. Laval turbine and dynamo; a variety of motors including two ten H.P. automatic Sprague motors, a Brush five H.P. constant current, and a Tesla alternate current motor. Storage batteries are of the Julien, Gibson, Sorley, and other "accumulator" types; aggregating about 200 cell. There are also arc and incandescent lamps of all the various types, and commercial electric meters. The great tangent galvanometer and electro-dynamometers, and the potential instrument at the Magnetic Observatory; and the authorized copies of the British Association standards of resistance afford every facility for making measurements in absolute measure of current, E.M.F., and resistance, with the highest attainable accuracy.

There are large numbers of ammeters, voltmeters, Wheatstone bridges, electro-dynamometers, electric balances, long range electrometers, etc., many constructed here, others purchased, for general use, and always kept in correct adjustment by comparison with the above standardizing apparatus. Apparatus is provided for all delicate testing, for the exact study and determination of alternate current energy, for conductivity and insulation tests, and for the determination of the properties of the magnetic materials. Means for making quantitative measurements are supplied through a well equipped photometer room for the photometry of arc and incandescent lamps; several Brackett "cradle" dynamometers for efficiency tests of dynamos and motors; a rehostat of german-silver wire, for a working resistance, with a capacity ranging from twenty-two hundred ohms and four ampères to four-tenths of an ohm and three hundred ampères.

ADMISSION.

The following subjects are required for admission : English, Geography, Physiology and Hygiene, History [the student must offer two of the four following divisions in History : (a) American ; (b) English ; (c) Grecian ; (d) Roman ;] Plane Geometry, Elementary Algebra, Solid Geometry, Advanced Algebra, Plane and Spherical Trigonometry and *either* Elementary French or Elementary German. See page 36.

[*For details as to subjects and methods of admission see pages 29-61.*

For admission to the freshman class, communications should be addressed to the Registrar. See pages 29-40.

For admission to advanced standing from other colleges and universities, communications should be addressed to the Director or the Secretary of Sibley College. See pages 41 and 42.

For admission to graduate work and candidacy for advanced degrees, communications should be addressed to the Dean of the University Faculty. See pages 56-61.]

COURSES IN MECHANICAL ENGINEERING.

Leading to the Degree of Mechanical Engineer.*

REGULAR COURSE.

The letters and figures in parenthesis relate to the departments and courses in Sibley College as described on pp. 71 to 74.

<i>Freshman Year.</i>	1st Term.	2d Term.	3d Term.
German or French	3	3	3
Analytical Geometry	5	Differential Calcul. 5	Integral Calculus 5
Chemistry . . .	3	3	3
Drawing (D 1)	3	3	(D 2) 3
Shopwork (M.A. 1)	3	3	3
Hygiene . . .	1	-	-
Drill . . .	2	-	2
<i>Sophomore Year.</i>	1st Term.	2d Term.	3d Term.
Mechanics of Eng. .	5	5	5
Drawing (D 5)	2	2	2
Descriptive Geom.	2	2	2
Experimental	4	Electricity and	Acoustics and
Mechanics and Heat		Magnetism 4	Optics 4
Chemical Laboratory	3	3	3
Shopwork (M.A. 5)	3	3	3
Drill . . .	2	-	2

*All elections to be approved by the Director. Students will report for instructions. Students are advised and encouraged to take shop practice in vacation.

<i>Junior Year.</i>	1st Term.	2d Term.	3d Term.
Steam Machinery (M. D. 11)	2	2	2
Electrical Machinery (E. E. 10)	2	2	2
Gen'l Machine Design (M. D. 12)	3	3	3
Kinematics and Drawing (M. D. 10)	3	3	3
Materials of Construction (X. E. 10)	1	1	1
Physical Laboratory	2	2	2
Mechanical Laboratory (X. E. 11)	3	3	3
Shopwork (M. A. 10)	3	3	3

<i>Senior Year.</i>	1st Term.	2d Term.	3d Term.
Steam Engines and other Motors (M. E. 20)	5	5	Thesis: Designing and Drawing, Mechanical Laboratory Investiga- tions, Shopwork. Time divided optional- ly, but subject to ap- proval of the Director. 5 to 8
Physical Laboratory	2	2	
Mechanical Lab. (X. E. 20)	2	2	
Eng. Design (M. D. 20, 21)	5	5	
Shopwork (M. A. 20)	3	3	
Elective	0 to 3	0 to 3	

"Thesis Drawing" either term as arranged, 2 hours.

COURSE IN ELECTRICAL ENGINEERING.*

The freshman, sophomore, and junior years are identical with the course in Mechanical Engineering; in the senior year, laboratory work is increased, and advanced electrical engineering work introduced.

<i>Senior Year.</i>	1st Term.	2d Term.	3d Term.
Physics, lectures and labo- ratory work	5	5	Physics, lectures and laboratory work . . 5
Steam Engine and other Motors (M. E. 20)	5	5	Thesis,† including labo- ratory, drawing, shop, 3 hours each, unless substituted for . . 12
Mechanical Lab. (X. E. 20)	2	2	
Electrical Eng. (E. E. 20, 21)	5	5	
Shopwork (M. A. 20)	2	2	Elective . . . 0 to 3

"Thesis Drawing" either term as arranged, 2 hours.

* Students taking this course are entitled to the degree of M. E.; and the statement that they have given special attention to electrical work is engrossed on their diploma. None should enter it unless strong in *mathematics, both pure and applied, and in physics.*

† This term is devoted largely to the preparation of a thesis which must be approved by the Director. *If not otherwise arranged, the student will take shopwork, laboratory work, and drawing, 3 hours each.* Elective time in the Fall and Winter terms may be devoted to thesis-work if desired, and a corresponding amount of elective time added to the Spring term in substitution for such work.

COURSES IN MARINE ENGINEERING.

The courses in the Graduate School of Marine Engineering and Naval Architecture are included in "Mechanical Engineering and Design." A senior year is especially arranged for such as desire to take this work, similarly to the arrangement for electrical engineering work. This may be taken as regular elective work, whenever desired, by seniors in other courses. Special elective work can sometimes be provided. Circulars are sent on application.

<i>Senior Year.</i>	1st Term.	2d Term.	3d Term.
Naval Architecture (M. C. 20)	3 . . .	3	3
Ship Const'n and Design (M. C. 21)	5	5	5
Marine Engineering (M. C. 22)	5 . . .	5	5
Steam Eng. & other Motors (M. E. 20)	5	5	Thesis . . 12
Experimental Engineering (X. E. 20)	2	2	—
Physical Laboratory	2	2	—
Shopwork (M. A. 20)	2	2	—

Of the above courses, the last four and from 5 to 8 hours of the first three are required.

<i>Graduate Year.</i>	1st Term.	2d Term.	3d Term.
Naval Architecture & Ship Design	10	10	10
Marine Engineering	10	10	10
Seminary	1	1	1
Elective	4	4	4

Of the above work in the graduate year, 15 hours per week is considered full time, and the student is expected to elect them between courses (30), (31), (32), (33), (34), (35).

COURSES OF INSTRUCTION.

The courses in each department are numbered in accordance with the following plan :

Numbers	1 to 4 inclusive	denote	Freshman subjects.
"	5 " 9	"	Sophomore "
"	10 " 19	"	Junior "
"	20 " 29	"	Senior "
"	30 " 35	"	Graduate "

Three hours in the shops or drawing rooms, or two and one-half hours in the laboratories count as one hour in the schedule.

The numbers in brackets are those by which the courses have been designated in preceding years.

DEPARTMENT OF MECHANICAL ENGINEERING. [M. E.]

20. [5] Steam Engines and Other Motors. Thermodynamics and the theory of steam and other heat engines. Fall and winter terms. Lectures. Five hours. Daily, except S., 11. Professor THURSTON.

21. [6] Applied Theory of Steam and Other Engines. Finance of operation. Spring term. Three hours. M., W., F., 11. Professor THURSTON

30. [17] Advanced Work in Special Courses and Graduate Work in Mechanical Engineering, as may be assigned by Professor THURSTON.

31. [36] Finance of Engineering and Economics of Manufacturing Establishments. Spring term, elective. Two hours. T., Th., 11. Professor THURSTON.

DEPARTMENT OF EXPERIMENTAL ENGINEERING. [X. E.]

10. [2] Materials of Construction. Juniors. One hour. Lectures. M., 11; Th., 9; F., 9. Professor CARPENTER, Messrs. ELDREDGE and HOUGHTON.

11. [14] Mechanical Laboratory. Three hours. Juniors. Fall term. Lectures. Strength of materials, tension and transverse testing, calibrating dynamometers, steam gauges, weirs, and meters. Winter term. Lectures. Strength of materials, compression, torsion and impact testing, oil testing, flue gas analysis, calorimetry. thermometer calibration, valve setting and indicator practice. Spring term. Lectures. Strength of large specimens, special research, strength of materials, test of durability of lubricants, efficiency tests, water motors, centrifugal pumps, gas engines, injectors, steam pumps, and indicator practice. One hour of class room work. Daily 2-5. Professor CARPENTER, Messrs. PRESTON, ELDREDGE, HOUGHTON, SHANTZ, and ROE.

20. [15] Mechanical Laboratory. Two hours. Seniors. Fall term. Lectures. Efficiency tests, steam boilers, steam engines, turbine water-wheels, air-compressor, hot air engines transmission of power by belting and gearing. Winter term. Lectures. Test of steam engine and application of Hirn's analysis, power required to drive machine tools, test of a steam-heating plant, test of power plants not at the University. Efficiency test of injectors. Spring term. Special research, thesis work. Daily 2-5. Professor CARPENTER, Messrs. PRESTON, ELDREDGE, HOUGHTON, SHANTZ, and ROE.

21. [19] Elementary Problems in Consulting Practice. Seniors. Lectures. T., Th., 11-2. Mechanical Laboratory practice and research. Daily 2-5. Professor CARPENTER.

30 [18] Special Research; Commercial Tests. Graduates and advanced students. Professor CARPENTER, Messrs. PRESTON, ELDREDGE and HOUGHTON

DEPARTMENT OF ELECTRICAL ENGINEERING. [E. E.]

10. [39] Electrical Machinery. Juniors. Two hours. Recitations. M., W., 10, 11, 12; T., Th., 8, 9, 11. Mr. NORRIS.

20. [4] Electrical Engineering. Requires Course 7 C. E. and Junior Physics. Seniors. Fall and winter terms. Three hours. Lectures. T., Th., S., 12. Professor RYAN.

21. [13] Designing and Drawing. Seniors. Fall and winter terms. Two hours. M. T., W., Th., 8-11. Professor RYAN, and Mr. MACOMBER.

22. [20] History of the Development of Electrical Engineering. Lectures. Seniors and graduates. Spring term. One hour. T., 12. Professor RYAN.

23. [21] Finance of the Production and Utilization of Electrical Energy. Lectures. Seniors and graduates. Spring term. One hour. Th., 12. Professor RYAN.

30. [35] Electrical Engineering. Study of University equipment, local "plants," etc. Two hours. Fall, winter, and spring. Professor RYAN and Mr. MACOMBER.

31. [16] Electrical Engineering. Graduates, Professor RYAN and Mr. MACOMBER.

32. [37] Electric Railways. Advanced work. One hour. Fall and winter terms. S., 9. Mr. MACOMBER.

DEPARTMENT OF MECHANIC ARTS. [M. A.]

1. [8 a] Shopwork. Woodworking; use of tools; carpentry; joinery; pattern making; turning.

5. [8 b] Shopwork. Blacksmithing: use of tools, forging, welding, tool-dressing, etc.

10. [8 c] Shopwork. Foundry work: moulding, casting, mixing metals. brass work, etc.

20. [8 d] Shopwork. Machinist work; use of hand and machine tools; working to form and to gauge; finishing; construction; assemblage; erection.

Each of the above courses 3 hours. Daily as assigned, 8-1, 2-6. Professor MORRIS; Messrs. WISEMAN, WOOD, VANDERHOEF, GRANGER, STANTON, POLLAY, VANDERHOEF, STARKINS, and HEAD.

DEPARTMENT OF INDUSTRIAL DRAWING AND ART. [D].

1. [9] Freehand Drawing (a) Freshmen. Three hours. Daily 8-11, 2-5, ex. S. Assistant Professor CLEAVES, Messrs. GUTSELL, FURLONG, and WILSON. (b) Pen and Ink. (c) Decoration, Modeling, Water-colors, as assigned.

2. [10] Instrumental Drawing. Required of freshmen in Mechanical and Electrical Engineering. Spring term. Three hours. Daily 8-11; M., W., F., 2-5. Assistant Professor CLEAVES, and Messrs. FURLONG and WILSON.

5. [11] Mechanical Drawing. Specials and sophomores. Two hours. Daily as assigned. Messrs. J. S. and D. REID

20. History of Art. Lectures on Painting, Sculpture, and the Industrial Arts in mediæval and modern times. T., Th., 12. Mr. GUTSELL.

21. Thesis Drawing, as arranged, 2 hours.

DEPARTMENT OF MACHINE DESIGN. [M. D.]

10. [1 and 12] Kinematics and Drawing. Requires course 3 C. E. Juniors. Three hours. Lectures and Drawing. Lectures (1 hour), M., 9; Tu., 12. Mr. BRUEGEL. Drawing (2 hours credit); M., W., F., 8-10; 10-12; Tu., Th., S., 8-10; 11-1. Messrs. BRUEGEL and BARNARD.

11. [38] Steam Machinery. Requires course 1 Physics, and 7 C.E. Juniors. Two hours. Recitations. Tu., Th., 11, 12; W., F., 10, 11, 12. Mr. HALL.

12. [3] Machine Design. Requires course 7 C. E. Juniors. Three hours. Lectures and Recitations. Lectures (2 hours), Tu., Th., 10. Associate Professor BARR. Recitations (1 hour), W., 9, 10, 11; Th., 8, 9, 11. Mr. BARNARD.

20 [3 a] Steam Engine Design. Requires course 11. Seniors. Fall and Winter terms. Three lectures. M., W., F., 12. Associate Professor BARR.

21. [13] Designing and Drawing. Requires course 11. Seniors. Fall and Winter terms. Two hours. Designing of engines, boilers, steam plants, etc.; intended to accompany course 20. Drawing daily, except M., 8-11. Associate Professor BARR, Messrs. HALL and BRUEGEL.

22. Machinery and Millwork. Requires course 10. Seniors. Fall and Winter terms. Two Lectures. Tu., Th., 12. Associate Professor BARR.

23. Designing and Drawing. Requires course 10. Seniors. Fall and Winter terms. Three hours credit. Designing of machine tools, transmission machinery, hoisting machinery, etc.; intended to accompany course 22. Drawing daily, except M., 8-11. Associate Professor BARR, Messrs. BRUEGEL, and HALL.

24. [33 and 34] Advanced Designing. Requires courses 20 and 21; or 22 and 23. Associate Professor BARR.

SCHOOL OF MARINE CONSTRUCTION. [M. C.]

20. [24] Naval Architecture. Elementary theory of a floating body. Computation of various geometrical quantities. Stability. Strength of ship. Introduction to resistance, propulsion, and powering. Lectures and exercises in computations. Three hours. Lectures T., Th., 9. Professor DURAND.

21. [25] Shipbuilding and design. Methods of ship construction. Laying down and fairing lines. Drawing out scantling sections in accordance with the rules of Registration Societies. Drawing various structural elements. Introduction to problem of design, embodying the application of the subjects considered in course 20. Lectures and drawing. Five hours. Lectures M., W., F., 9. Assistant Professor McDERMOTT.

22. [26] Marine Machinery. Descriptive study of marine boilers, engines, and auxiliary machinery. Design of characteristics and of structural details. Operation and care when under way. Lectures and drawing. Five hours. Lectures M., W., F., 10. Professor DURAND.

30. [27] Naval Architecture. Advanced work. As assigned. Professor DURAND.

31. [28] Ship Design. Advanced work. As assigned. Assistant Professor McDERMOTT.

32. [29] Marine Machinery. Advanced work. As assigned. Professor DURAND.

33. [30] Seminary. One hour. Professor DURAND and Assistant Professor McDERMOTT.

34. [31] Specifications, Contracts, Estimates. As assigned. Assistant Professor McDERMOTT.

35. [32] Marine Auxiliaries. As assigned. Professor DURAND and Assistant Professor McDERMOTT.

SCHOLARSHIP AND PRIZES.

SIBLEY PRIZES IN MECHANIC ARTS.—Under the gift of the late Hon. Hiram Sibley, made in 1884, the sum of one hundred dollars will be annually awarded to those students in the Sibley College who shall, in the opinion of the Faculty of that institution, show the greatest merit in their college work.

THE FRANK WILLIAM PADGHAM SCHOLARSHIP will be assigned to the best competing candidate in the scholarship examinations in the studies required for entrance to the regular course in Mechanical Engineering, who shall have had his preparatory education in the public schools of Syracuse, New York. For particulars see p. 49 or address the Registrar.

THE UNIVERSITY LIBRARY.

LIBRARY COUNCIL.

JACOB GOULD SCHURMAN, *President.*
GEORGE W. HARRIS, *Librarian.*
ROBERT H. TREMAN, *of the Trustees.*
EDWARD L. NICHOLS,
GEORGE P. BRISTOL,
C. FRANCIS OSBORNE,
H. MORSE STEPHENS, } *Of the Faculty.*

LIBRARY STAFF.

GEORGE WILLIAM HARRIS, Ph.B., Librarian.
ANDREW CURTIS WHITE, Ph.D., Assistant Librarian in charge of
Classification.
WILLARD HENRY AUSTIN, Assistant Librarian in charge of Ref-
erence Library.
MARY FOWLER, B.S., First Cataloguer in the Library.
THEODORE W. KOCH, A.M., Cataloguer.
EMMA AVALYN RUNNER, B.S., Cataloguer.
GEORGE FLAVEL DANFORTH, Ph.B., Assistant in Reference Li-
brary.
MARY ELLEN GRISWOLD, B.L., Assistant in Order Department.
JENNIE THORNBURG, B.L., Assistant in Accession Department.
GEORGE LINCOLN BURR, A.B., Librarian of the President White
Library.
ALEXANDER HUGH ROSS FRASER, LL.B., Librarian of the Law
Library.
JAMES FLOYD HUBBELL, A.B., Assistant in the Law Library.
HENRY MERTON MERRIHEW, Assistant in the Law Library.

THE UNIVERSITY LIBRARY comprises the General Library of the University, the seven Seminary Libraries, and the Law School Library. The total number of bound volumes in the University Library is

now one hundred and ninety-seven thousand four hundred and sixty-two, distributed as follows :

General Library,	169,668
Seminary Libraries,	2,750
Law School Library,	25,044
	197,462

The General Library of the University and the Seminary Libraries are all grouped under one roof in the Library Building, while the Law School Library has separate quarters in Boardman Hall.

THE UNIVERSITY LIBRARY BUILDING, the gift of the Hon. Henry W. Sage, stands at the southwest corner of the quadrangle formed by the principal University buildings. It is built of light gray Ohio sandstone, and its construction is fireproof throughout. It is heated by steam from the central heating station, is provided with a thorough system of artificial ventilation, and fully equipped with incandescent electric lights. The extreme dimensions of the building are one hundred and seventy by one hundred and fifty-three feet, and it has a storage capacity of four hundred and seventy-five thousand volumes. The general outlines of the ground plan are somewhat in the form of a cross, the bookstacks occupying the southern and western arms, the reading room and periodical room, the eastern, the White Historical library, the seminary rooms and the offices of administration, the northern. The abundantly lighted and handsomely furnished reading room contains ample accommodations for two hundred and twenty readers, and the open book-cases around its walls provide shelf-room for a carefully selected reference library of eight thousand volumes. In the basement, beneath the reading room, is a lecture room, with seating capacity for nine hundred and eighty auditors. In the tower are placed the great bell of the University, the gift of Mrs. Mary White, the chime of bells, the gift of Mrs. Jennie McGraw-Fiske, and the University clock.

The General Library is under the supervision of the LIBRARY COUNCIL, consisting of seven members, as follows: The President of the University and the Librarian, *ex officio*, one member chosen by the Board of Trustees, and four members nominated by the Faculty and confirmed by the Board of Trustees. The President of the University is *ex officio* chairman of the council. The elected members hold office until their successors are chosen.

The income of an endowment fund of three hundred thousand dollars, the gift of the Hon. Henry W. Sage, devoted to the purchase of books and periodicals, provides for a large and constant increase of the library, the average annual additions being now about twelve

thousand volumes. The number of periodicals and transactions, historical, literary, scientific and technical, currently received, is over six hundred, and of many of these complete sets are on the shelves.

Among the more important special collections which from time to time have been incorporated in the General Library may be mentioned: THE ANTHON LIBRARY, of nearly seven thousand volumes, consisting of the collection made by the late Professor Charles Anthon, of Columbia College, in the ancient classical languages and literatures, besides works in history and general literature; THE BOPP LIBRARY, of about twenty-five hundred volumes, relating to the oriental languages and literatures, and comparative philology, being the collection of the late Professor Franz Bopp, of the University of Berlin; THE GOLDWIN SMITH LIBRARY, of thirty-five hundred volumes, comprising chiefly historical works and editions of the English and ancient classics, presented to the University in 1869 by Professor Goldwin Smith, and increased during later years by the continued liberality of the donor; THE PUBLICATIONS of the Patent Office of Great Britain, about three thousand volumes, of great importance to the student in technology and to scientific investigators; THE WHITE ARCHITECTURAL LIBRARY, a collection of over twelve hundred volumes relating to architecture and kindred branches of science, given by ex-President White; THE KELLEY MATHEMATICAL LIBRARY, comprising eighteen hundred volumes and seven hundred tracts, presented by the late Hon. William Kelley, of Rhinebeck; THE CORNELL AGRICULTURAL LIBRARY, bought by the Hon. Ezra Cornell, chiefly in 1868; THE SPARKS LIBRARY, being the library of Jared Sparks, late president of Harvard University, consisting of upwards of five thousand volumes and four thousand pamphlets, relating chiefly to the history of America; THE MAY COLLECTION, relating to the history of slavery, and anti-slavery, the nucleus of which was formed by the gift of the library of the late Rev. Samuel J. May, of Syracuse; THE SCHUYLER COLLECTION of folk-lore, Russian history and literature, presented by the Hon. Eugene Schuyler in 1884; THE RHÆTOROMANTIC COLLECTION, containing about one thousand volumes, presented by Willard Fiske in 1891; THE PRESIDENT WHITE HISTORICAL LIBRARY, of about twenty thousand volumes (including bound collections of pamphlets) and some three thousand unbound pamphlets, the gift of ex-President White, received in 1892, especially rich in the primary sources of history, and containing notable collections on the period of the Reformation, on the English and French Revolutions, on the American Civil War, and on the history of superstition; THE ZARNCKE LIBRARY, containing about thirteen thousand

volumes and pamphlets, especially rich in Germanic philology and literature, including large collections on Lessing, Goethe, and Christian Reuter, purchased and presented in 1893 by William H. Sage; THE DANTE COLLECTION, containing at present over six thousand volumes, presented in 1893-7 by Willard Fiske; THE HERBERT H. SMITH COLLECTION of books relating to South America, purchased in 1896; a valuable collection of books on French and Italian Society in the 16th and 17th centuries, presented by Professor T. F. Crane in 1896.

The Library is primarily a reference library, but officers of the University have the privilege of taking books from the library for home use, and this privilege, with certain restrictions, is extended to fellows and graduate scholars. Books may also be taken for home use by students after twelve o'clock on days preceding holidays, when the library is closed, to be returned at the re-opening of the library. The library is open on week days, during term time, from 8 A.M. till 9:30 P.M., except on Saturdays, when it is closed at 5 P.M. In vacation it is open on week days from 9 A.M. till 5 P.M.

All students of the University have free access to the shelves of the Reference Library of eight thousand volumes in the main reading room, but apply at the delivery desk for other works they may desire. This reference library comprises encyclopædias, dictionaries, and standard works in all departments of study, together with books designated by professors for collateral reading in the various courses of instruction. In the same room, and accessible to all readers, is the card catalogue of the general library, including also the books in the seminary libraries. The catalogue is one of authors and subjects, arranged under one alphabet on the dictionary plan. Cards of admission to the shelves in the stack-rooms, and to the White Historical Library, will be issued by the librarian to graduate students for purposes of consultation and research, and also to members of the senior or junior classes upon the recommendation of any professor under whom they may be engaged in advanced work.

Since its incorporation with the general library in 1891, the valuable historical collections of the PRESIDENT WHITE LIBRARY are displayed in a spacious room, in the north wing of the Library Building, communicating directly with the historical seminary rooms. The White Library is open only to officers of the University, members of the seminaries, and others holding cards of admission. The SEMINARY ROOMS in the Library Building contain the seminary libraries proper, supplemented by collections of works and periodicals from the general library deposited in these rooms for use in seminary work.

Books so deposited in the seminary rooms are available for the use of students in the general reading room, except when in actual use in the seminaries. The books forming the seminary libraries proper are subject to such regulations as may be made for each seminary room by the professor in charge, to whom application for admission to the room must be made. In several of the scientific and technical departments similar collections of reference books have been formed, access to which may be obtained upon application to the department concerned.

THE LAW SCHOOL LIBRARY occupies the third floor of Boardman Hall. It includes the famous library of the late N. C. Moak, which was presented to the school, in 1893, by Mrs. Douglas Boardman and Mrs. George R. Williams, as a memorial of Dean Boardman. This collection contains all the reports of every State in the Union, all the Federal reports, all the English reports, the colonial reports, complete sets of all the leading legal periodicals, all kept up to date. It is also rich in sets of leading cases and in specialties, and contains a large collection of text books, thus offering facilities second to none in the country.

BIBLIOGRAPHY.

The following course is offered for 1897-98.

Introductory survey of the historical development of the book, illustrated by examples of manuscripts and incunabula: explanation of book sizes and notation; systems of classification and cataloguing; bibliographical aids in the use of the Library. Winter and spring terms. One hour. M., II. Mr. HARRIS.

THE SAGE CHAPEL AND BARNES HALL.

THE SAGE CHAPEL.—This chapel, the gift of the Hon. Henry W. Sage, and situated about midway between Morrill Hall and Sage College, is constructed of brick with elaborately carved stone trimmings, and is of the Gothic order of architecture. The auditorium has a seating capacity of about five hundred persons, and contains a number of memorial windows and tablets. Opening into the auditorium is a smaller chapel, so arranged as to be used in connection with it. In the chapel religious services are held, and discourses, provided for by the Dean Sage Preachership Endowment, are delivered by eminent clergymen selected from the various Christian denominations. By the terms of the charter of the University persons of any religious denomination or of no religious denomination are equally eligible to all offices and appointments; but it is expressly ordered that "at no time shall a majority of the Board of Trustees be of any one religious sect, or of no religious sect."

On the opposite or north side is **THE MEMORIAL CHAPEL**, constructed in the Gothic style of the second or decorated period. It was erected, as a tablet in its northern end bears witness, to the memory of Ezra Cornell, John McGraw, and Jennie McGraw-Fiske, and was completed in 1884. The exterior is of red brick with stone trimmings. The interior walls are of Ohio stone and yellow brick. The ceiling is vaulted, with Ohio stone ribs and Caen stone panels. On entering the chapel the eye is at once arrested by the rich memorial windows constructed by Clayton and Bell, of London. They are designed not only to commemorate the connection of Mr. Cornell, Mr. McGraw, and Mrs. Jennie McGraw-Fiske with this University, but also to associate their names with the names of some of the greatest benefactors in the cause of education. The north window contains the figures of William of Wykeham, John Harvard, and Ezra Cornell; the east window the figures of Jeanne of Navarre, Margaret of Richmond, and Jennie McGraw-Fiske; the west window those of Elihu Yale, Sir Thomas Bodley, and John McGraw. Directly beneath the great northern window is a recumbent figure of Ezra Cornell, in white marble, of heroic size, by William W. Story, of Rome; near this is another recumbent figure, that of Mrs. Andrew D. White, also in white marble,

by Ezekiel, of Rome. A vault underneath the chapel contains recesses for the remains of the founders of the University.

BARNES HALL.—The University is indebted to the generosity of the late Alfred S. Barnes, Esq., of New York, for a commodious and elegant building designed mainly for the use of the University Christian Association. This building is one hundred and twenty feet by eighty feet in dimensions, and three stories in height. The material is brick, with trimmings of Ohio stone, brown stone, and granite. On the north, the main entrance is marked by a graceful tower rising to a height of one hundred feet. The building contains a secretary's room, assembly-room, library, reading-room, and all other needed accommodations for the work of the Association, in addition to a spacious auditorium, which occupies the larger part of the second floor. Besides the auditorium, there is a smaller class-room on this floor, the two being separated by a screen which in case of need is easily removed, thus throwing the entire second floor into one hall, and furnishing seating room for one thousand persons. The rooms are open daily from 8 A. M. to 8 P. M. to all students.

The Christian Association is a voluntary organization of about five hundred students and professors for the promotion of their religious culture, and for Christian work in the University. It has a permanent Secretary, a carefully selected library of biblical literature, and a well-equipped reading-room of religious and secular journals. Courses of Bible study are carried on by the Association throughout the year. A committee of this Association is in attendance at Barnes Hall during the first week of every fall term for the purpose of assisting those entering the University with information in regard to rooms, board, times and places of examinations, etc., and in general to afford any assistance in their power which students who are strangers in Ithaca may feel inclined to seek from them.

SUMMER COURSES.

(JULY 5—AUGUST 13, 1898.)

The following is a brief outline of courses offered in the Summer School for 1897. While not excluding others these courses are for the special benefit of teachers and advanced students. The same facilities for work are extended to those attending the Summer School as to regular students of the University.

The Faculty of the University has passed the following resolutions :

1. Regularly matriculated students of the University are allowed credit for work done in the Summer School in accordance with the following restrictions :

a. Work in the Summer School may be allowed the same credit as the same amount and kind of work in the University ; but no student shall be allowed credit for more than ten University hours in any summer session.

b. Credit shall be given only for courses that have received the approval of the University Faculty.

c. The proposed credit shall be based upon the regular University examination held at the beginning of the fall term. In subjects in which no regular examinations are held at that time, special examinations may then be given by the departments concerned.

2. Students of the Summer School not matriculated in the University may receive certificates of attendance and of satisfactory work, duly signed by their instructors and the President of the University.

In the announcements below, "five hours," "three hours," etc., indicate the number of lectures or recitations given each week. In a five hour course the lectures are given on every day except Saturday ; in a two or three hour course, on every alternate day.

COMPARATIVE PHILOLOGY.—PROFESSOR BRISTOL.

An introduction to the study of comparative philology and to the science of language. The following topics are treated : The mechanism of speech and analysis of the sounds of English, Latin and Greek. The graphic representation of speech ; origin and development of the alphabet. The relations of Greek, Latin and English to one another and to other languages (German in particular) of the

Indo-European group. Comparative phonology of these three tongues. Methods and results of the study of Comparative Philology. The Greek and the Latin elements in English. The course is adapted to the needs of teachers of either ancient or modern languages. It will be largely a lecture course, supplemented with practical exercises by members of the class. Five hours.

GREEK.—PROFESSOR BRISTOL.

Teachers' course in Homer. The work of the course will center in the Iliad and will consist of three parts :

(a) The reading and interpretation of selected portions of the first three books of the Iliad.

(b) The study of the language of the poem in its chief characteristics, and of its relation to the Attic dialect : the epic hexameter, its origin and development : the principles of interpretation : some features of life in the "Homeric period" : the value of archæology for the understanding of the poem : aims and methods in translating.

(c) Discussions on the teaching of Homer : the end to be kept in view : practical difficulties in the work. The most valuable books and other auxiliary helps for the teacher of Greek. Five hours.

Anyone who thinks of taking either of the above courses is requested to correspond with Professor Bristol.

LATIN.—PROFESSOR BENNETT.

1. Course for Teachers. Study of the evidences for the pronunciation of Latin. Hidden quantities. Peculiarities of orthography. Original force and historical development of the cases. The subjunctive, with special reference to its primitive meaning and the history of its development in subordinate clauses. Discussion of the general purpose and methods of preparatory Latin study. The reading of Latin verse. Reading at sight. Five hours.

2. Reading course. The Captivi of Plautus ; Cicero's de Senectute. Lectures on the history of Roman Comedy. Five hours.

GERMAN.—DR. JONES AND MR. VILES.

1. Elementary course. Study of the grammar with the reading of easy texts. Though no previous knowledge of German is required, the course is intended primarily for teachers and students desiring a systematic review of the principles of pronunciation, inflection, forma-

tion of cognates, etc. If desired the regular work will be supplemented once or twice a week by special written or oral tests, with individual criticism based upon the results, or a discussion of methods of teaching. At the same time the work will be conducted with due attention to the needs of students desiring to make up the whole or a part of the regular first year German. Five hours. Dr. JONES.

2. Schiller's *Wilhelm Tell*, Heine's *Prose*. This course will be of the same nature as second year German, and is planned to cover as much as possible of the work gone over during the first two terms of University work.

In *Wilhelm Tell*, a careful study will be made of language and metre, the *Tell* legend, and the relation of the poem to the author's life. Heine's *Prose* will be used largely for sight-reading. One object of the course will be to afford facility in reading at sight; special attention will be given to syntax. Five hours. Mr. VILES.

3. Prose composition, conversation and syntax. This course is designed to meet the needs of those who expect to teach German composition. It will also afford drill in syntax to any who may desire to study carefully the characteristic differences of German and English idiom: two hours a week will be devoted to conversation in German. Five hours. Dr. JONES.

The University library comprises one of the finest collections in America for the study of German literature. Students or teachers, desiring to do special reading and to have assistance in using the library, can make arrangements with Dr. Jones and Mr. Viles, who will assume such direction of their work as they may desire.

ROMANCE LANGUAGES.—DRS. OLMSTED AND SEGALL.

1. Elementary French. A systematic grammar-review, reading of easy prose, exercise in composition, translation, pronunciation and dictation. Chardenal's *Complete French Course*, Rollin's *Reader*. Five hours. Dr. OLMSTED.

2. Second year French. This course is designed for those who wish to read French authors of moderate difficulty, and will be conducted largely in French. Some time will be devoted to practice in speaking and understanding spoken French, to translation at hearing, and to dictation. Erckmann-Chatrian's *Le Conscrit de 1813*, About's *Le Roi des Montagnes*. Five hours. Dr. OLMSTED.

3. Elementary Italian. Grammar, composition, and reading of easy prose. Grandgent's *Italian Grammar*, Bowen's *Italian Reader*. Five hours. Dr. OLMSTED.

4. Elementary course in French composition and conversation. Conducted entirely in French. The course is designed to enable the student to write French correctly and to converse upon familiar subjects. The conversation will be based upon the compositions and also upon short stories to be studied for the class. Four hours. Dr. SEGALL.

5. Advanced course in French composition and conversation. Conducted entirely in French. It is especially designed for teachers and graduates. Some knowledge of composition and conversation will be required. Discussion of topics of modern French literature based upon readings assigned to the class. Compositions upon literary subjects. Four hours. Dr. SEGALL.

6. Teachers' course. Entirely in French.

a. Rapid reading at sight of difficult French prose and poetry.

b. Correct reading of French poetry. Lamartine, V. Hugo, Musset.

c. Study of idioms.

d. Discussion of difficulties in French syntax.

e. Readings in prose and poetry to the class. Four hours. Dr. SEGALL.

ENGLISH.

At this time it is not possible to make any announcement of work in English. Persons who may desire work in this subject, are requested to send for the special circular to be issued in Feb., 1898.

ELOCUTION.—MR. SHURTER.

A course intended to meet the needs of those who would speak well in public; and also for teachers who wish to learn practical methods of teaching elocution.

Lectures on the elements of expression. The control and use of the voice and body, in reading and speaking; including instruction in breathing, articulation, emphasis, inflection, force, volume, voice-building, gesture, and general delivery. Interpretation and delivery of oratorical selections. Class exercises in declamation, with criticism and suggestion by the instructor. Five hours.

MATHEMATICS.—PROFESSORS WAIT AND JONES.

1. Elementary and Advanced Algebra. An advanced course on the principles of algebra and methods of teaching it, with Jones' Drill-Book in Algebra as the basis of instruction.

2. Plane and Solid Geometry. A review, in which the primary definitions, the axioms, the fundamental theorems, and the theory of proportion of geometric magnitudes, will be critically examined. Based on Euclid.

3. Higher Algebra. An advanced course, including the theory of imaginaries and the theory of equations.

4. Plane and Spherical Trigonometry. An elementary course covering parts of Jones' Drill-Book in Trigonometry.

6. Analytic Geometry. An elementary course.

7. Analytic Geometry. An advanced course with Salmon's Conic Sections as the basis of instruction.

9, 10. Calculus. Elementary courses.

11, 12. Calculus. Advanced courses with Williamson's and Todhunter's Differential and Integral Calculus as the basis of instruction.

13. Differential Equations, with Johnson's text-book as the basis of instruction.

Other courses in higher mathematics may be arranged for upon consultation with the instructors in charge of the work.

PHYSICS.—MESSRS. ROGERS, SHEARER, AND HOTCHKISS.

1a. Experimental Lectures in General Physics. Three lectures per week. The course is intended to meet the needs of those who wish a general knowledge of physical laws or intend to use lecture methods in part in their teachings, as well as for those wishing a brief review of general physics. The unusually large collection of lecture room apparatus makes it possible to illustrate a great number of physical phenomena. Mr. SHEARER.

1b. Recitations in General Physics. This course may be taken with or without 1a, and is designed for those wishing to prepare for teachers' or other examinations. The number of hours per week, text-books, etc., to be arranged to suit the needs of applicants. 1a and 1b may be taken by those wishing to prepare for the University examination at the beginning of the fall term. Mr. SHEARER.

2. Laboratory work in General Physics, especially designed for teachers in high schools and academies. Four hours daily. Mr. ROGERS and Mr. SHEARER.

3. Physical Laboratory work. Same as Course 3, page 118. Mr. ROGERS and Mr. SHEARER.

4. Advanced laboratory work with lectures and recitations. Electricity and Magnetism. Three hours daily. Mr. ROGERS.

5. (a). Dynamo Laboratory Practice. The work is selected from a large number of experiments, with the various kinds of direct current

and alternating current apparatus, to meet the individual requirements of those taking it. It is designed for those who do not desire credit in University courses, and may not have the preparation required for Course 6 below. (b). A short course similar to 5*a*, but for half the time, will be given. It may begin as late as the middle of the term, and may be combined with a half course in General Physics if desired. Four hours daily. Mr. HOTCHKISS.

6. Dynamo Laboratory Practice. Same as courses 4 and 5, page 123. Four hours daily. Mr. HOTCHKISS.

7. (a). Laboratory work with Alternating Current Apparatus; designed for advanced students who wish to devote the entire term to alternating current work. (b). A half course may be taken. Four hours daily. Mr. HOTCHKISS.

8. Lectures on Laboratory work. Two hours. Mr. HOTCHKISS.

CHEMISTRY.—MESSRS. KORTRIGHT, CUSHMAN, BENEDICT, AND
MORTON.

1. General Chemistry. Lectures, recitations and laboratory work. Especially for teachers in secondary schools. Six hours and five laboratory hours. Dr. KORTRIGHT.

2. Qualitative Analysis. Recitations, lectures, laboratory work. Two courses corresponding to courses 2 and 5, page 130. Mr. BENEDICT.

3. Quantitative Analysis.—Elementary.

An introduction to quantitative methods and the chemistry upon which these methods are based. Lectures explanatory of the methods used, are first given; each student then performs simple analyses which involve the use of the apparatus ordinarily used in analytical work.

Two lectures, one recitation, and fifteen hours in the Laboratory per week.

Course corresponds to Course 3 of the Register, page 130.

Text book, Caldwell's Chemical Analysis (3rd ed.) Mr. CUSHMAN.

4. Quantitative Analysis.—Advanced.

Special methods of Quantitative Analysis, both gravimetric and volumetric, such as are of sanitary and technical importance.

One conference a week. Laboratory hours elective. Mr. CUSHMAN.

5. Spectroscopic Qualitative Analysis. Laboratory work. Two afternoons a week. Detection of the alkali metals, alkaline earths, and some of the rarer elements by means of the spectroscope. Mr. CUSHMAN.

6. Technical Gas Analysis. Laboratory work. Two afternoons a week. The course will consist of the analysis of air, furnace gases, generator gas and illuminating gas. Special attention will be given to rapid or exact methods of analysis according to the needs of each student. Mr. CUSHMAN.

Course corresponds to Course 10 of the Register, page 131.

7. Organic Chemistry.—Elementary Course.

Six lectures and recitations and fifteen Laboratory hours. Corresponds to courses 20 and 21 in the Register, page 131. Mr. MORTON.

8. Organic Chemistry.—Advanced Course.

Five lectures and recitations. Corresponds to Course 22 in the Register, page 132. Advanced Laboratory work as required. Mr. MORTON.

BOTANY.—PROFESSOR ATKINSON.

Lectures and Laboratory practice by appointment. Courses 1 and 2 are especially designed for those who are fitting themselves for teaching elementary botany.

1. Elementary Plant Physiology. A study of the general principles underlying the processes of nutrition, growth, etc. Three hours.

2. General Comparative Morphology. A comparative study of the form and reproduction of representative species in all the great groups of plants. Three hours. Open only to those who are taking course 1 or who have had its equivalent.

3. Mycology. Studies of the fleshy fungi, with special reference to methods of distinguishing the commoner edible species. Three hours.

4. Methods of Research. Lectures and practice in methods of research in morphology. Three hours. Open only to those who are taking courses 1 and 2, or who have had their equivalent.

DRAWING AND ART.—MR. GUTSELL.

1. Drawing. Pencil, pen and ink, or charcoal drawing as desired. Equivalent to Course 1 (a), page 235.

2. Painting in oils, or in water colors.

The work in black and white in Course 1 or the work in Course 2 may be taken from objects in the studio, or from landscape objects.

3. Modeling. The instruction includes the choice and use of tools, the handling of clay, and casting in plaster. Equivalent to Course 1 c, page 235.

Courses 1, 2, and 3, three hours a day, five days in the week.

4. Perspective. The principles of perspective with problems; special reference to free-hand drawing. Three hours.

5. The History of Art. Lectures on art in the renaissance and modern periods. Three hours.

MECHANICAL DRAWING AND DESIGNING.—MR. J. S. REID.

1. Mechanical Drawing. Use of instruments, geometrical problems, orthographic projection, inking and tinting, shading and shade lines, isometrical drawing, working drawings and conventions. Equivalent to Course 2 in Mechanical Engineering.

2. Elementary Designing. Elementary problems in machine drawing and designing. Equivalent to three hours of Course 5 in Mechanical Engineering.

3. Kinematic Drawing and Machine Design, including special course in locomotive design. Practical problems worked out by rules and formulæ for given data.

EXPERIMENTAL ENGINEERING.—MR. G. B. PRESTON.

Strength of Materials. Testing of the various materials of construction in tension, compression, torsion, etc.; also testing of lubricants for coefficient of friction, durability, viscosity, etc.

Calibration of Instruments. Calibration of dynamometers, weirs, steam gauges, steam engine indicators, and other engineering apparatus; also calorimetry and the analysis of flue gas.

Efficiency Tests of the hydraulic ram, water wheel, injector, steam boiler, steam pump, steam engine, and hot air engine.

Three hours daily for five days a week.

Work in this course is intended to give the student a thorough knowledge of the apparatus used in engineering practice, and at the same time to familiarize him with the best methods of research.

Every course announced will be given without regard to the number of students applying for it. Other courses may be announced in a later circular.

Fees for summer courses vary from ten dollars for a two or three hour course, to fifteen, twenty, or twenty-five dollars for a five or six hour course. For these and other details, including a fuller description of courses offered, see the larger circulars which may be had on application to the Secretary of the Summer School, Ithaca, N. Y.

FELLOWS AND SCHOLARS.

UNIVERSITY FELLOWS.

The Cornell Fellowship,

George Harley McKnight, A.B., Ph.D., *English Philology*

The McGraw Fellowship,

Almon Homer Fuller, C.E., (Lafayette Coll.), *Civil Engineering*

The Sage Fellowship,

Hector Russell Carveth, A.B., (Univ. of Toronto), *Chemistry*

The Schuyler Fellowship,

Charlotte Joaquina Maury, Ph.B., *Geology*

The Sibley Fellowship,

Eugene Charles Sickles, M.E., *Mechanical Engineering*

The Goldwin Smith Fellowship,

Harvey Adam Surface, M.S., (Ohio State Univ.),
Vertebrate Zoology

The President White Fellowship,

Samuel Jackson Barnett, A.B., (Univ. of Denver), *Physics*

The Erastus Brooks Fellowship,

Murray Macneill, B.A., (Dalhousie Coll.), *Mathematics*

Ernest Allen VanVleck, B. of Arch., *Architecture*

Herman Diederichs, M.E., *Mechanical Engineering*

John Charles Walker, Ph.B., *Germanic and Romance Languages*

Stephenson Whitcomb Fletcher, B.S., (Mass. Agr. Coll.), *Horticulture*

PRESIDENT WHITE FELLOWS IN HISTORY AND POLITICAL SCIENCE.

Robert Clarkson Brooks, A.B., (Indiana Univ.), A.M., (Cornell Univ.).

Jerome Barker Landfield, A.B.

FELLOWS IN POLITICAL ECONOMY AND FINANCE.

Charles Eugene Edgerton, A.B., (Hamilton Coll.).

George Schuyler Schaeffer, A.B., (Iowa State Univ.).

FELLOWS IN LATIN AND GREEK.

Fred Orlando Bates, A.B.

William Scott Ferguson, B.A., (McGill Univ.), A.M., (Cornell Univ.)

FELLOW IN AMERICAN HISTORY.

Walter Henry Ottman, A.B.

SUSAN LINN SAGE FELLOWS IN PHILOSOPHY AND ETHICS.

Albert Lefevre, A.B., (Univ. of Texas).

William Manahan, A.B., (Univ. of Manitoba).

Ellen Bliss Talbot, A.B., (Ohio State Univ.).

GRADUATE SCHOLARS IN THE SCHOOL OF PHILOSOPHY.

Boyd Bode, A.B., (Penn Coll.), A.B., (Univ. of Mich.).

Vida Frank Moore, Ph.B., (Wesleyan Univ.).

Arthur Chase Nutt, Ph.B., (Ohio State Univ.).

Lalla Rookh Rogers, B.L., (Mo. State Univ.).

Edwin Proctor Robins, A.B., A.M., (Dalhousie Coll.).

Stella Emily Sharp, A.B., (Wells Coll.).

UNIVERSITY GRADUATE SCHOLARS.

Newton Henry Brown, M.E., (Ohio State Univ.), *Physics*

Grace Patten Conant, A.B., (Bates Coll.), A.M., (Cornell Univ.),
English Literature

Samuel Gladney Harden, A.B., (South Carolina Presby. Coll.),	<i>Greek and Latin</i>
William Alphonso Murrill, B.S., (Vir. Pol. Inst.), B.S., A.B., A.M., (Randolph Macon Coll.),	<i>Botany</i>
Sophia Philipa Fleming, A.B.,	<i>Germanic and Romance Languages</i>
Benjamin Powell, A.B.,	<i>Classical Archæology and Comparative Philology</i>
James George Needham, B.S., M.S., (Knox Coll.),	<i>Invertebrate Zoology</i>
Fred Asa Barnes, C.E.,	<i>Civil Engineering</i>
Peter Field, B.S., (Univ. of Minn.),	<i>Mathematics</i>
Hamilton Perkins Cady, A.B., (Univ. of Kansas),	<i>Chemistry</i>
Elting Houghtaling Comstock, B.S., (Univ. of Wis.),	<i>Mathematics</i>
Byron Edmund Brooks, B.L.,	<i>American History</i>
Darwin Curtis Gano, LL.B.,	<i>Law</i>

UNIVERSITY UNDERGRADUATE SCHOLARS.

SOPHOMORE CLASS.

THE CORNELL SCHOLARSHIPS,

George Andrew Larkin, *Course in Arts*
 Olean High School—O. W. Wood, Principal.

Mabel Estey Rose, *Course in Arts*
 Girls' High School, Brooklyn—Calvin Patterson, B.S., Principal.

THE H. B. LORD SCHOLARSHIPS,

John Charles Davis, *Course in Civil Engineering*
 Binghamton High School—A. E. Leonard, A.M., Principal.

James Henry Miner, *Course in Civil Engineering*
 University School, Cleveland, Ohio—N. W. Anderson Principal.

THE MCGRAW SCHOLARSHIPS,

Elbert Andrew Wilson, *Course in Science*
Ithaca High School—F. D. Boynton, A.M., Principal.

Eva Rosalie Root, *Course in Arts*
Skaneateles Union School—H. F. Miner, A.M., Principal.

THE SAGE SCHOLARSHIPS,

Albert Merrifield Garretson, *Course in Arts*
Buffalo High School—F. A. Vogt, Principal.

James Harvey Pettit, *Course in Philosophy*
Shortsville High School—H. D. Hewes, Principal.

THE SIBLEY SCHOLARSHIPS,

Augustine Ridenour Ayres, *Course in Electrical Engineering*
Cascadilla School, Ithaca, N. Y.—C. V. Parsell, A. M., Principal.

Herbert Lee Cowing, *Course in Mechanical Engineering*
Brooklyn Latin School—C. Harrison, M.A., Principal.

THE PRESIDENT WHITE SCHOLARSHIPS,

Vera Mae Thompson, *Course in Philosophy*
Gloversville High School—C. H. Weller, Principal.

Sarah Blanche Houston, *Course in Arts*
Beaver College—W. J. Alexander, A.M., President.

THE HORACE GREELEY SCHOLARSHIPS,

John Tracy Fitzpatrick, *Course in Arts*
Brooklyn High School—J. Mickleborough, Principal.

Lewis Stanton Palen, *Course in Arts*
Monticello Union School—W. W. Miller, Principal.

THE JOHN STANTON GOULD SCHOLARSHIP,

Florence Baker Gray, *Course in Philosophy*
Pratt's Institute High School, Brooklyn—W. A. McAndrew, Principal.

Mary Frances Kellogg, *Course in Arts*
Norwalk, O., High School—A. D. Beechy, A.B., Principal.

THE STEWART L. WOODFORD SCHOLARSHIPS,

Roger Alexander Miller, *Course in Electrical Engineering*
Lockport Union School—Edward Hayward, Ph.D., Principal.

Mary Lois Saxton, *Course in Science*
Girls' High School, Brooklyn—Calvin Patterson, B.S., Principal.

FRESHMAN CLASS.

THE CORNELL SCHOLARSHIPS,

George Emil John Pistor, *Course in Civil Engineering*
Newark, N. J., High School—E. O. Hovey, A.M., Ph.D., Principal.

John Sedgwick Gay, *Course in Arts*
Mynderse Academy—Miss Linda T. Drake, Principal.

THE H. B. LORD SCHOLARSHIPS,

Willis Haviland Carrier, *Course in Electrical Engineering*
Buffalo High School—F. A. Vogt, Principal.

Herbert Spencer Wood, *Course in Arts*
Washington, D. C., High School—F. B. Lane, Principal.

THE MCGRAW SCHOLARSHIPS,

Leonard Jesse Reynolds, *Course in Arts*
Potsdam State Normal School—T. B. Stowell, A.M., Ph.D., Principal.

Jonas Walter Griswold, *Course in Civil Engineering*
Ithaca High School—F. D. Boynton, A.M., Principal.

THE SAGE SCHOLARSHIPS,

Claire Seymour, *Course in Arts*
Gloversville High School—C. H. Weller, Principal.

Marion Pratt, *Course in Arts*
Syracuse High School—W. K. Wickes, A.M., Principal.

THE SIBLEY SCHOLARSHIPS,

Howard Earl Geer, *Course in Mechanical Engineering*
Ithaca High School—F. D. Boynton, A.M., Principal.

James Hughes Massie, *Course in Mechanical Engineering*
Peterboro, Ont., Collegiate Institute—C. Fessenden, M.A., Principal.

THE PRESIDENT WHITE SCHOLARSHIP,

John Olmsted Dresser, *Course in Arts*
Brooklyn Boys' High School—John Mickleborough, Ph.B., Principal.

Ezra Bailey Whitman, *Course in Civil Engineering*
Baltimore City College, F. A. Soper, A.M., President.

THE HORACE GREELEY SCHOLARSHIP,

Sherwin Ward Haas, *Course in Civil Engineering*
Clayton Union School—Hiram D. Hall, Principal.

John Hamilton Blair, *Course in Arts*
Ithaca High School—F. D. Boynton, A.M., Principal.

THE JOHN STANTON GOULD SCHOLARSHIP,

Ernest Selah Holcomb, *Course in Electrical Engineering*
Ithaca High School—F. D. Boynton, A.M., Principal.

Roger Butler Williams, Jr., *Course in Civil Engineering*
Ithaca High School—F. D. Boynton, A.M., Principal.

THE STEWART L. WOODFORD SCHOLARSHIP,

Richard Harry Johnston, *Course in Arts*
Brooklyn Boys' High School—John Mickleborough, Ph.B., Principal.

Grace Shepard Lennon, *Course in Arts*
Brockport State Normal—C. D. McLean, A.M., L.L.B., Principal.

ASSOCIATE ALUMNÆ SCHOLAR.

Edith Mae Bickham, B.S.,

Course in Arts

FRANK WILLIAM PADGHAM SCHOLAR.

Harold Elijah White,

Course in Mechanical Engineering
Syracuse High School—W. K. Wickes, A.M., Principal.

CATALOGUE OF STUDENTS.

GRADUATES.

CANDIDATES FOR ADVANCED DEGREES.

Adams, James Ware, B.L., (<i>Michigan Univ.</i>) 1889, History and Political Science.	<i>Normal, Ill.</i> <i>Ph.D.</i>
Anderson, Leroy, B.S., 1896, M.S. in Agr., 1897, Chemistry, Geology, Agriculture.	<i>Magee</i> <i>Ph.D.</i>
Andrews, Eugene Plumb, A.B., 1895, Greek, Classical Archæology, Comparative Philology.	<i>Ithaca</i> <i>Ph.D.</i>
Andrews, William Claflin, E.E., (<i>Columbia Univ.</i>), 1895, Mechanical Engineering, Physics.	<i>Brooklyn</i> <i>M.M.E.</i>
Barnard, William Nichols, M.E., 1897, Mechanical Engineering.	<i>Washington, D. C.</i> <i>M.M.E.</i>
*Barnes, Albert, M.E., 1895, Mechanical Engineering.	<i>Clemson College, S. C.</i> <i>M.M.E.</i>
Barnes, Fred Asa, C.E., 1897, Civil Engineering.	<i>Stockbridge, Mass.</i> <i>M.C.E.</i>
Barnett, Samuel Jackson, A.B., (<i>Univ. of Denver</i>), 1894, Physics, Mathematics.	<i>Ithaca</i> <i>D.Sc.</i>
Bates, Fred Orlando, A.B., 1892, Greek, Comparative Philology, Latin.	<i>Ithaca</i> <i>Ph.D.</i>
Benedict, Centennial Harry, B.S., 1897, Chemistry.	<i>Pittsburg, Pa.</i> <i>Ph.D.</i>
Bentley, Isaac Madison, B.S., (<i>Univ. of Neb.</i>), 1895, Philosophy.	<i>Lincoln, Neb.</i> <i>Ph.D.</i>
Blaker, Ernest, B.S., (<i>Kansas State Univ.</i>), 1893, Physics, Mathematics.	<i>Kansas City, Kan.</i> <i>Ph.D.</i>
Bode, Boyd, A.B., (<i>Univ. of Mich.</i>), 1897, Philosophy.	<i>Leighton, Ia.</i> <i>Ph.D.</i>

* *In absentia.*

- Bonsteel, Jay Allan, B.S., 1896, *Ithaca*
Geology. *D.Sc.*
- Bowers, Emma, B.S., 1897, *Ithaca*
Anatomical Methods and Human Anatomy, Botany. *A.M.*
- Brooks, Byron Edmund, B.L., 1897, *Spencer*
History and Political Science. *Ph.D.*
- Brooks, Robert Clarkson, A.B., (*Indiana Univ.*), 1896, *New York City*
History and Political Science, Philosophy. *Ph.D.*
- Brown, Charles Gardener, B.S., (*Northwestern Univ.*), 1896, *Evanston, Ill.*
Geology, Botany. *Ph.D.*
- Brown, Newton Henry, M. E., (*Ohio State Univ.*), 1893, *Columbus, O.*
Physics, Mathematics. *Ph.D.*
- Brown, Oliver W., B.S., (*Earlham Coll.*), 1895, A.M., (*Indiana Univ.*),
1896, *Indianapolis, Ind.*
Chemistry. *Ph.D.*
- Cady, Hamilton Perkins, A. B., (*Kansas State Univ.*), 1897, *Blue Rapids, Kansas*
Chemistry, Physics. *A.M.*
- Cannon, Howard Burt, B.S., (*Mich. Agr. Coll.*), 1888, *Washington, Mich.*
Agriculture, Veterinary Medicine. *M.S. in Agr.*
- Carveth, Hector Russell, A. B., (*Toronto Univ.*), 1896, *Port Hope, Ont., Can.*
Chemistry, Mathematics. *Ph.D.*
- Cavanaugh, George Walter, B.S., 1896, *Ithaca*
Chemistry, Botany. *Ph.D.*
- Comstock, Elting Houghtaling, B.S., (*Univ. of Wis.*), 1897, *Milwaukee, Wis.*
Mathematics. *A.M.*
- Conant, Grace Patten, A.B., (*Bates Coll.*), 1893, A.M., (*Cornell Univ.*),
1897. *Littleton, Mass.*
English, History and Political Science. *Ph.D.*
- Cox, Rose May, A.B., (*Indiana Univ.*), 1896, *Terre Haute, Ind.*
English, German. *Ph.D.*
- Critchley, Bertha May, A.B., (*Vassar*), 1887, *Cleveland, O.*
History and Political Science. *Ph.D.*
- Cummings, Edgar Roscoe, A.B., (*Union Coll.*), 1897, *Madison, O.*
Geology. *Ph.D.*

- Curtis, Chester Bickford, B.L., (*Dartmouth Coll.*), 1889, M.L., (*same*),
1893, *New Castle, N. H.*
Chemistry, Geology. *Ph.D.*
- Cushman, Blin Sill, B.S., 1893, *New Berlin*
Chemistry, Physics, Geology. *Ph.D.*
- Danforth, George Flavel, Ph.B., 1890, *Ithaca*
History and Political Science, Semitic Languages and Literature, Philosophy. *Ph.D.*
- Dercum, Max, M.E., 1897, *Cleveland, O.*
Mechanical Engineering. *M.M.E.*
- Diederichs, Herman, M.E., 1897, *Dolgeville*
Mechanical Engineering. *M.M.E.*
- Duggar, Benjamin Minge, B.S. (*Miss. Agr. and Mech. Coll.*), 1891,
M.S., (*Ala. Poly. Inst.*), 1892, A.B., (*Harvard Univ.*),
1894, A.M., (*same*), 1895, *Ithaca*
Botany. *Ph.D.*
- Duncombe, Frances Evaline, A.B. (*Univ. of Neb.*), 1897, *Lincoln, Neb.*
English. *A.M.*
- Durham, Charles Love, M.A., (*Furman Univ.*), 1891,
Greenville, S.C.
Latin, Greek, Comparative Philology. *Ph.D.*
- Dutcher, George Matthew, A.B., 1897, *Owego*
History and Political Science. *Ph.D.*
- Earll, Eva Cynthia, Ph.B., 1895, *Syracuse*
English, German. *A.M.*
- Edgerton, Charles Eugene, A.B. (*Hamilton, Coll.*), 1882, *Binghamton*
History and Political Science. *Ph.D.*
- Ellery, Eloise, A.B., (*Vassar Coll.*), 1897. *Rochester*
History and Political Science. *Ph.D.*
- Ferguson, William Scott, B.A., (*McGill Univ.*), 1896, A. M., (*Cor-*
nell Univ.), 1897, *Marshfield, P. E. I., Can.*
Greek, Latin, Comparative Philology. *Ph.D.*
- Field, Peter, B.S., (*Univ. of Minn.*), 1896, *Dixie, Iowa*
Mathematics. *Ph.D.*
- Fleming, Sophy Phillippa, A.B., 1874, *Ithaca*
Romance Languages, German. *Ph.D.*
- Fletcher, Stevenson Whitcomb, B.S., (*Mass. Agr. Coll.*), 1896,
Middleboro, Mass.
Agriculture, Botany. *M.S. in Agr.*

- Fuller, Almon Homer, C.E., (*Lafayette Coll.*), 1897, *Camptown, Pa.*
Civil Engineering. *M.C.E.*
- Gamble, Eleanor Acheson McCulloch, A.B., (*Wellesley Coll.*), 1889,
Plattsburg
Philosophy. *Ph.D.*
- Gaston, Charles Robert, Ph.B., 1896, *Ithaca*
English, History and Political Science. *Ph.D.*
- Gerling, Henry Joseph, B.L., P.B., LL.B., (*Mo. State Univ.*), 1894,
M.L., (*same*) 1896, *Columbia, Mo.*
History and Political Science, Philosophy. *Ph.D.*
- Gregg, John William, B.L., (*Swarthmore Coll.*), 1894, *Lincoln, Va.*
History and Political Science. *Ph.D.*
- Harden, Samuel Gladney, A.B., (*Presby. Coll. of S. C.*), 1891,
Winnsboro, S. C.
Latin, Greek. *A.M.*
- Harris, Florence Belle, A.B., 1897, *Jamestown*
Romance Languages, History and Political Science. *A.M.*
- Heller, Clarence Nevin, A.B., (*Franklin and Marshall Coll.*), 1890,
A.M., (*same*), 1895, *Lancaster, Pa.*
Latin, Greek. *A.M.*
- Higgins, James Edgar, B.A., (*Acadia Univ.*), 1895, *Wolfville, N. S.*
Agriculture, Botany. *M.S. in Agr.*
- Hill, John Henry, M.E., 1897, *Ithaca*
Mechanical Engineering, Physics. *M.M.E.*
- Hirshfield, Edward, B.S., (*Univ. of Rochester*), 1897, *Rochester*
Chemistry, Physics. *Ph.D.*
- Hopkins, Cyril George, B.S., (*Agr. Coll. of So. Dakota*), 1890, M.S.,
(*Cornell Univ.*), 1894, *Urbana, Ill.*
Chemistry. *Ph.D.*
- Hotchkiss, Homer James, C.E., (*Allegheny Coll.*), 1888, B.A., (*same*),
1889, M.M.E., (*Cornell Univ.*), 1896, *Ithaca*
Physics. *Ph.D.*
- Hotchkiss, Willard Eugene, Ph.B., 1897, *Amber*
History and Political Science. *A.M.*
- Hoxie, George L, M.E., 1892, M.M.E., 1897, *Ithaca*
Physics, Mechanical Engineering, Mathematics. *Ph.D.*
- Hughes, David Arthur, B.L., (*Albion Coll.*), 1893, M.L., (*Cornell*
Univ.), 1895, *Ithaca*
English, History and Political Science. *Ph.D.*

- Hunter, Marion, B.L., (*Univ. of Mich.*), 1896, *Lapeer, Mich.*
English, Philosophy. *A.M.*
- Irish, Henry Clay, B.S., (*Agr. Coll. of So. Dakota*), 1891,
St. Louis, Mo.
Agriculture, Botany. *M.S. in Agr.*
- Junghanns, Robert Ludwig, B.S.A., 1897, *Poughkeepsie*
Agriculture. *M.S. in Agr.*
- Kennedy, Patrick Beveridge, B.S. in Agr., (*Toronto Univ.*), 1894,
Glasgow, Scotland
Botany, Agriculture. *Ph.D.*
- Kinder, Francis Shanor, Ph.B., (*Univ. of Colo.*) 1894,
Scenery Hill, Pa.
History and Political Science. *Ph.D.*
- Knisely, Abraham Lincoln, B.S., (*Univ. of Mich.*), 1891, M.S., (*same*),
1893, *Geneva*
Chemistry, Agriculture. *D.Sc.*
- Knox, George Platt, B.S., 1894, *Ballston Spa*
Chemistry, Geology, Physics. *Ph.D.*
- Lauman, George Nieman, B.S.A., 1897, *Allegheny, Pa.*
Agriculture. *A.M.*
- Lawrence, Clara Louise, B.S., 1893, *Waterville*
Chemistry. *A.M.*
- Lee, Harold, Ph.B., (*Yale Coll.*), 1896, M.E., (*Cornell Univ.*), 1897,
East Orange, N. J.
Mechanical Engineering. *M.M.E.*
- Lefevre, Albert, A.B., (*Univ. of Texas*), 1894, *Baltimore, Md.*
Philosophy. *Ph.D.*
- Louthan, Gilbert Wade, B.S. Agr., (*Iowa Agr. Coll.*) 1895, M.S. Agr.
(*same*) 1897, *Sutherland, Iowa*
Agriculture. *M.S. in Agr.*
- Luke, Fred K, B.S., (*So. Dakota Agr. Coll.*), 1894, M.S., (*same*),
1896, M.S. in Agr., (*Cornell Univ.*), 1897, *Brookings, So. Dak.*
Agriculture, Entomology and Invertebrate Zoology. *Ph.D.*
- McCarthy, Gerald, B.S., (*Gallaudet Coll.*), 1887, *Raleigh, N. C.*
Botany, Entomology and Invertebrate Zoology. *Ph.D.*
- McIntosh, Douglas, B.S., (*Dalhousie Coll.*), 1896, *New Glasgow, N. S.*
Chemistry. *A.M.*
- Macneill, Murray, B.A., (*Dalhousie Coll.*), 1896, *St. John, N. B., Can.*
Mathematics. *A.M.*

- Mallarian, Casbar Hagop, A.B., (*Wheaton Coll.*), 1892, A.B., (*Cornell Univ.*), 1897, *Marsovan, Armenia*
Romance Languages, Germanic Languages. *Ph.D.*
- Manahan, William, A.B., (*Univ. of Manitoba*), 1895, *Winnipeg, Manitoba, Can.*
Philosophy. *Ph.D.*
- Martin, Gertrude Shorb, Ph.B., (*Univ. of Mich.*), 1894, *Ithaca*
History and Political Science, Philosophy. *Ph.D.*
- Maury, Carlotta Joaquina, Ph.B., 1896, *Cambridge, Mass.*
Geology, Philosophy. *Ph.D.*
- Miller, Wilhelm, A.B., (*Univ. of Mich.*), 1892, A.M., (*Cornell Univ.*)
1897, *Detroit, Mich.*
Agriculture. *Ph.D.*
- Monroe, Benton Sullivan, A.B., 1896, A.M., 1897, *Romulus*
English, Comparative Philology. *Ph.D.*
- Moore, Alfred Austin, A.B., (*Hamilton Coll.*), 1890, *Clinton*
Romance Languages, Germanic Languages. *Ph.D.*
- Moore, Vida Frank, Ph.B., (*Wesleyan Univ.*), 1893, M.S. (*same*),
1897, *Steuben, Me.*
Philosophy. *Ph.D.*
- Morton, Darwin Abbot, B.S., 1895, *Groton*
Chemistry, Geology. *Ph.D.*
- Murrill, William Alphonso, B.S., (*Vir. Poly. Inst.*), 1887, B.S., (*Randolph Macon Coll.*), 1889, A.B. (*same*), 1890, A.M. (*same*),
1891, *Blacksburg, Va.*
Botany. *Ph.D.*
- Myers, Burton Dorr, Ph.B., (*Buchtel Coll.*), 1897, *Attica, O.*
Microscopy, Histology and Embryology; Physiology and
Vertebrate Zoology. *A.M.*
- Needham, James George, B.S., (*Knox Coll.*), 1891, M.S. (*same*),
1894, *Anderson, Ill.*
Entomology and Invertebrate Zoology; Microscopy, Histology
and Embryology; Botany. *Ph.D.*
- Ness, Helge, B.S., (*Texas Agr. and Mech. Coll.*), 1889, *College Station, Texas*
Botany, Agriculture. *M.S.*
- Northup, Clark Sutherland, A.B., 1893, *Ithaca*
English, Romance Languages, Germanic Language. *Ph.D.*
- Nutt, Arthur Chase, Ph.B., (*Ohio State Univ.*), 1897, *Worcester, Mass.*
Philosophy. *Ph.D.*

- Ottman, Walter Henry, A.B., 1897, *Elmira*
History and Political Science. *Ph.D.*
- Parker, Ada Belle, Ph.B., (*Syracuse Univ.*), 1891, Ph.M., (*same*),
1894, *Port Gibson*
History and Political Science, English. *Ph.D.*
- *Pearson, Raymond Allen, B.S. in Agr., 1894, *Washington, D. C.*
Agriculture. *M.S. in Agr.*
- Peirce, Paul Skeels, Ph.B., 1897, *Ithaca*
History and Political Science. *Ph.D.*
- Powell, Benjamin, A.B., 1896, *Seneca Falls*
Greek, Comparative Philology. *A.M.*
- Rammelkamp, Charles Henry, Ph.B., 1896, *South Orange, N. J.*
History and Political Science. *Ph.D.*
- Reed, Raymond Clinton, Ph.B., 1896, *Ithaca*
Veterinary Medicine. *Ph.D.*
- Robins, Edwin Proctor, B.A., (*Dalhousie Coll.*), 1895, M.A., (*same*),
1896, *Central Bedeque, P. E. I., Can.*
Philosophy. *Ph.D.*
- Roe, Mark Woodhull, M.E., 1896, *Chester*
Mechanical Engineering. *M.M.E.*
- Rogers, Lalla Rookh, B.L., (*Mo. State Univ.*), 1897, *Kingston, Mo.*
Philosophy. *Ph.D.*
- Rollefson, Carl Jacob, A.B., (*St. Olaf Coll.*), 1890, *Great Fork, N. D.*
Physics, Mathematics. *Ph.D.*
- Schaeffer, George Schuyler, A.B., (*Iowa State Univ.*), 1897, *Iowa City, Ia.*
History and Political Science. *Ph.D.*
- Shantz, Oliver, M.E., 1893, *Ithaca*
Mechanical Engineering. *M.M.E.*
- Sharp, Stella Emily, A.B., (*Wells College*), 1895, *Seneca Falls*
Philosophy. *Ph.D.*
- Shearer, John Sanford, B.S., 1893, *Ithaca*
Physics, Mathematics. *D.Sc.*
- Sickles, Eugene Charles, M. E., 1890, *New Baltimore*
Mechanical Engineering. *M.M.E.*
- Smith, George Armstrong, B.S. in Agr., (*Toronto Univ.*), 1896, *Morrisburg, Ont., Can.*
Chemistry, Geology. *Ph.D.*

- Smith, J Hayes, B.S., 1896, *Pittsburg, Pa.*
Physics, Chemistry. *Ph.D.*
- Snell, John Ferguson, B.A., (*Toronto Univ.*), 1894,
Snelgrove, Ont., Can.
Chemistry, Mathematics. *D.Sc.*
- Spinney, Louis Bevier, B.M.E., (*Iowa Agr. Coll.*), 1892, B.S., (*same*)
1893, *Ames, Ia.*
Physics, Mathematics. *D.Sc.*
- Stebbins, Eunice, B.S., 1897, *Omaha, Neb.*
Physics, Geology. *Ph.D.*
- Stewart, Fred Carlton, B.S., (*Iowa Agr. Coll.*), 1892, M.S., (*same*),
1894, *Jamaica*
Botany, *Ph.D.*
- Stockbridge, Francis Granger, B.S., (*Mass. Agr. Coll.*), 1892,
Northfield, Mass.
Agriculture. *M.S. in Agr.*
- Surface, Harvey Adam, B.S., (*Ohio State Univ.*), 1891, M.S., (*same*),
1892, *Waynesville, O.*
Physiology and Vertebrate Zoology, Embryology, Entomology.
Ph.D.
- Swindells, Joseph Springer, C.E., 1895, *Brooklyn*
Civil Engineering. *M.C.E.*
- Talbot, Ellen Bliss, A.B., (*Ohio State Univ.*), 1890, *Columbus, O.*
Philosophy. *Ph.D.*
- Talmadge, Jesse Moore, B.S., 1897, *Hammondsport*
Chemistry, Mathematics. *Ph.D.*
- Timmerman, Charles Edward, B.S., (*Coll. of City of N. Y.*), 1891,
M.E., (*Cornell Univ.*), 1892, M.M.E., (*same*), 1893, *Ithaca*
Mechanical Engineering, Physics, Mathematics. *D.Sc.*
- *Towl, Forrest Milton, C.E., 1886, *Brooklyn*
Civil Engineering. *M.C.E.*
- Trine, David Winfield, B.S., (*Mich. Agr. Coll.*), 1892,
Springport, Mich.
Agriculture, Botany. *A.M.*
- Valentine, Warren Russell, M.E., 1894, *Ithaca*
Mechanical Engineering. *M.M.E.*
- Viles, George Burrige, A.B., (*Harvard*), 1892, A.M., (*same*), 1896,
Lowell, Mass.
Germanic Languages, Romance Language. *Ph.D.*

Wakeman, George Bulkeley, A.B., (<i>Brown Univ.</i>), 1884,	<i>Ithaca</i>
History and Political Science.	<i>Ph.D.</i>
Walker, John Charles, Ph.B., 1892,	<i>Ithaca</i>
Romance Languages.	<i>Ph.D.</i>
Webb, Louise Beatrice, A.B., (<i>Mt. Allison Coll.</i>), 1897,	
<i>Halifax, N. S., Canada.</i>	
English, History and Political Science.	<i>A.M.</i>
Wicker, George Ray, A.B., 1890,	<i>Ithaca</i>
History and Political Science.	<i>Ph.D.</i>
Wiegand, Karl McKay, B.S., 1894,	<i>Ithaca</i>
Botany.	<i>Ph.D.</i>

GRADUATE STUDENTS NOT IN RESIDENCE FOR 1897-98.

Abbott, Wilbur C, A.B., (<i>Wabash Coll.</i>), 1892, B.Litt., (<i>Oxford</i>), 1897,	<i>Ann Arbor, Mich.</i>
History and Political Science.	<i>A.M.</i>
Atwood, Horace, B.S. in Agr., 1891,	<i>Morgantown, W. Va.</i>
Agriculture, Chemistry.	<i>M.S. in Agr.</i>
Cogswell, George Alfred, A.B., (<i>Dalhousie Coll.</i>), 1890,	
<i>Ft. Williams, N. S., Canada</i>	
Philosophy.	<i>Ph.D.</i>
Comstock, Charles Worthington, C.E., Met.E., (<i>Colorado School of</i>	
<i>Mines</i>), 1890, M.C.E., (<i>Cornell Univ.</i>), 1894,	<i>Denver, Colo.</i>
Civil Engineering, Mathematics.	<i>D.Sc.</i>
Dolson, Grace Neal, A.B., 1896,	<i>Hornellsville</i>
Philosophy, Greek.	<i>Ph.D.</i>
Edmiston, Homer James, A.B., (<i>Univ. of Neb.</i>), 1892, <i>Princeton, N. J.</i>	
Latin, Greek, Comparative Philology.	<i>Ph.D.</i>
Fenno, Vena, A.B., (<i>Allegheny Coll.</i>), 1895,	<i>Union City, Pa.</i>
History and Political Science, English, Romance Language.	<i>Ph.D.</i>
Ferry, Erwin Sidney, B.S., 1889,	<i>Madison, Wis.</i>
Physics, Mechanical Engineering, Mathematics.	<i>D.Sc.</i>
Franklin, William Suddards, B.S., (<i>Univ. of Kansas</i>), 1887, M S.,	
(<i>same</i>), 1888,	<i>Ames, Iowa</i>
Physics, Mathematics.	<i>D.Sc.</i>
Higgins, Leonidas Raymond, A.B., (<i>Brown Univ.</i>), 1884,	
<i>Flemington, N. J.</i>	
Greek, Latin, Comparative Philology.	<i>Ph.D.</i>

- Landfield, Jerome Barker, A.B., 1894, *Binghamton*
History and Political Science. *Ph.D.*
- Lingle, Thomas Wilson, A.B., (*Davidson Coll.*), 1893, A.M., (*same*),
1895, *Millbridge, N. C.*
Philosophy, History and Political Science. *Ph.D.*
- Mims, Edwin, B.A., (*Vanderbilt Univ.*), 1892, M.A., (*same*), 1893,
Durham, N. C.
English, History and Political Science, Philosophy. *Ph.D.*
- Orvis, Julia Swift, A.B., (*Vassar Coll.*), 1895, *Dixon, Ill.*
History and Political Science. *Ph.D.*
- Tower, Carl Vernon, A.B., (*Brown Univ.*), 1893, A.M., (*same*), 1895,
Ithaca
Philosophy. *Ph.D.*
- Van Vleck, Ernest Allen, B.Arch., 1897, *Red Creek*
Architecture. *M.S. in Arch.*

NOT CANDIDATES FOR DEGREES.

- Alexander, Virginia, A.B., (*Vassar Coll.*), 1889, *Ithaca*
English, Greek.
- Brown, Sara Winifred, B.S., 1897, *Winchester, Va.*
Entomology and General Invertebrate Zoology.
- Deuell, George Henry, A.B., (*Haverford Coll.*), 1896, *Bangall*
Agriculture.
- Genung, Lewell T., A.B., 1897, *Ithaca*
Entomology and General Invertebrate Zoology.
- Higby, Edwin Barker, B.S., in Arch., 1895, M.S. in Arch., 1896,
Ithaca
Architecture.
- Kelley, William Vincent, Jr., B.S., (*Coll. City of New York*), 1891,
M.E., (*Cornell Univ.*), 1893, *New York City*
Mechanical Engineering, Law.
- Mayo, Nelson Slater, B.S., (*Mich. Agr. Coll.*), 1888, D.V.S. (*Chicago*
Veterinary Coll.), 1889, M.S., (*Mich. Agr. Coll.*), 1890, *Ithaca*
Microscopy and Histology and Embryology, Veterinary Medicine.
- Nearing, Elena, B.S., 1896, *Middletown*
Mathematics, Physics, German.
- Reyna, Ysidro, M.E., 1897, *Morelos, Mexico*
Civil Engineering.

- Soch, Charles Augustus, A.B. (*Harvard Univ.*), 1894, *Smith's Mills*
Chemistry, Agriculture, Entomology and Invertebrate Zoology.
- Swearingen, Grace Fleming, B.L., 1893, *Council Bluffs, Iowa*
English.
- Troy, Hugh Charles, B.S. in Agr., 1896, *Ithaca*
Chemistry.
- Waddell, John, B.A., (*Dalhousie Coll.*), 1877, B.Sc., (*London Univ.*)
1882, Ph.D., (*Heidelberg*), 1884, D.Sc., (*Edinburgh*), 1886,
Halifax, N. S., Canada
Chemistry.
- Wilson, Mary Rodifer, M.D., (*Medical Coll. of Indiana*), 1894, B.S.,
(*Cornell Univ.*), 1897, *Indianapolis, Ind.*
Veterinary Medicine, Chemistry, English.
- McKnight, George Harley, A.B., 1892, Ph.D., 1896, *Sterling Valley*
English.

CANDIDATES FOR LL.M.

- Bryant, Theodore Keller, LL.B., 1897 *Ithaca*
- Fraser, Alexander Hugh Ross, LL.B. (*Dalhousie Coll.*), 1892, *Ithaca*
- Gambée, Charles Merrill, LL.B., 1897, *Ithaca*
- Gano, Darwin Curtis, LL.B., 1897, *Starkey*
- Keach, Nelson Lester, LL.B., 1897, *Hoosick Falls*
- Lewis, Joshua Roger, C.E., 1895, LL.B., 1897, *Ithaca*
- Servis, John Henderson, LL.B., 1897, *Ithaca*

GRADUATE STUDENTS IN UNDERGRADUATE COURSES.

- Albee, Robert Sumner, B.S., (*Mich. Univ.*), 1896, *LL.B.*
- Alcock, Harry Hill, A.B., (*Phila. Central H. S.*), 1890, *M.E.*
- Aldrich, Ellis Leeds, B.L., 1897, *LL.B.*
- Almy, Don William Robinson, A.B., 1897, *LL.B.*
- Anderson, Robert Harlow, A.B., (*Williams Coll.*), 1894, *C.E.*
- Andrews, Arthur Lynn, B.L., 1893, M.L., 1895, *LL.B.*
- Bertolet, Heyman Ely, B.S., (*Albright Coll. Inst.*), 1894, *C.E.*
- Bickham, Edith Mae, B.S., (*Millerville Normal*), 1895, *A.B.*
- Bissell, Alphonso Dix, B.S., (*Union Coll.*), 1895, *LL.B.*
- Blount, John Isham, B.E., (*Agr. and Mech. Coll. of N. C.*), 1895,
C.E., (*same*), 1897, *M.E.*
- Brownell, Berton Hoag, B.A., (*Wesleyan Univ.*), 1897, *LL.B.*
- Bruckner, Arthur, B.S., (*Coll. City of N. Y.*), 1892, *M.E.*
- Brustlein, Charles Henry, B.S., (*Coll. City of N. Y.*), 1897, *M.E.*

Bryant, Fred Lafayette, B.S., (<i>Clemson Coll.</i>), 1896,	<i>E.E.</i>
Bushnell, Horace Carlton, A.B., (<i>Carleton Coll.</i>), 1897,	<i>M.E.</i>
Clark, David, B.E., M.E., C.E., (<i>Agr. and Mech. Coll. of N. C.</i>), 1895. 1896, 1897,	<i>M.E.</i>
Clark, Frank Durbon, B.S., (<i>Univ. of Rochester</i>), 1895,	<i>E.E.</i>
Colson, Frederick Diamond, B.L., 1897,	<i>LL.B.</i>
Dearborn, Richard Harold, A.B., (<i>Portland Univ.</i>), 1895,	<i>E.E.</i>
Dempsey, John Joseph, E.E., (<i>Notre Dame Univ.</i>), 1895,	<i>C.E.</i>
Diven, Alexander Samuel, A.B., (<i>Yale Coll.</i>), 1894,	<i>Opt. Law</i>
Dougherty, Edward Emmett, A.B., (<i>Univ. of Georgia</i>), 1895,	<i>B. Arch.</i>
Esmond, Irwin, Ph.B., 1897,	<i>LL.B.</i>
Fimple, Loren Pearl Redman, B.S., (<i>Mich. Agr. Coll.</i>), 1896,	<i>LL.B.</i>
Fish, Pierre Augustine, B.S., (<i>Cornell Univ.</i>), 1890, D.Sc. (<i>same</i>), 1894, D.V.S., (<i>National Vet. Univ.</i>) 1896,	<i>D.V.M.</i>
Follmer, William Wilcox, B.S., (<i>Dickinson Sem.</i>), 1897,	<i>M.E.</i>
Haviland, Edwin, Jr., B.S., (<i>Swarthmore</i>), 1885,	<i>Special</i>
Hill, Ebenezer, Jr., A.B., (<i>Yale Coll.</i>), 1897,	<i>M.E.</i>
Hopkins, Grant Sherman, B.S., 1887, D.Sc., 1890,	<i>D.V.M.</i>
Horne, Joseph Leo, B.D., (<i>Brigham Young Academy</i>), 1897,	<i>C.E.</i>
Howes, Robert, B.S. in E.E., (<i>Brooklyn Poly. Inst.</i>), 1897,	<i>E.E.</i>
Ingersoll, Monmouth Hazlett, A.B., 1897,	<i>LL.B.</i>
James, Frederick Pitkin, A.B., (<i>Yale Coll.</i>), 1895, LL.B., (<i>Buffalo Univ.</i>), 1897,	<i>Opt. Law</i>
Joiner, Mortimer Eugene, A.B., (<i>Bates Coll.</i>), 1893,	<i>LL.B.</i>
Jones, Fred Atwood, A.B., (<i>Richmond Coll.</i>), 1894,	<i>E.E.</i>
Joyce, David, LL.B., 1895,	<i>Special</i>
Langdon, Jervis, B.L., 1897,	<i>Opt. Law</i>
Laughlin, Abigail Hill, A.B., (<i>Wellesley Coll.</i>), 1894,	<i>LL.B.</i>
Lawler, Clement Alexander, A.B., 1897,	<i>LL.B.</i>
Leshner, Charles Edward, A.B., (<i>National Normal Univ.</i>), 1895,	<i>Special</i>
Livermore, Paul Smith, A.B., 1897,	<i>LL.B.</i>
Lloyd, John William, B.S., (<i>Wheaton Coll.</i>), 1897,	<i>B.S.A.</i>
Loving, Arthur Sylvester, B.S., (<i>Illinois Coll.</i>), 1892,	<i>LL.B.</i>
McDonald, Hugh Fackler, B.M.E., (<i>Agr. and Mech. Coll. of Texas</i>), 1895,	<i>E.E.</i>
McKibbin, Frederick William James, B.A.Sc., (<i>McGill Univ.</i>), 1897,	<i>E.E.</i>
Maguire, Jeremiah De Smet, A.B., (<i>Christian Bros. Coll.</i>), 1895,	<i>E.E.</i>
Mandler, Charles Jacob, B.L., 1897,	<i>LL.B.</i>
Manly, Charles Matthews, M.M.P., (<i>Furman Univ.</i>), 1896,	<i>E.E.</i>
Mason, Mabel Hortense, M.E.L., (<i>New Hamp. Female Coll.</i>), 1894,	<i>Special</i>

- Miller, John Vincent, A.B., (*Yale Coll.*), 1897, *M.E.*
 Moore, Edward Lockhart, B.S. in Agr., 1896, *D.V.M.*
 Morris, Oscar Matison, B.S., (*Oklahoma Agr. and Mech. Coll.*), 1896, *B.S.A.*
 Mowery, John Norris, Jr., A.B., (*Franklin and Marshall Coll.*), 1895, *M.E.*
 Murtaugh, John Francis, A.B., (*St. Bonaventure's Coll.*), 1896, *LL.B.*
 Neely, John Crosby, A.B., (*Princeton Univ.*), 1894, *M.E.*
 Newell, Harry Emory, Ph.B., (*Colgate Univ.*), 1894, *LL.B.*
 Odell, Mark M., B.L., 1897, *LL.B.*
 Pharr, Eugene Albertus, A.B., (*Centenary Coll.*), 1895, *M.E.*
 Putnam, Russell Benjamin, B.S., (*Centenary Coll.*), 1894, *M.E.*
 Robertson, Phoebe Allene, M.E.L., (*Bordentown Female Coll.*), 1897, *Special*
 Rodriquez, Dámaso, B.C.E., (*Agr. and Mech. Coll. of Texas*), 1896, *C.E.*
 Sanderson, Ezra Dwight, B.S., (*Mich. Agr. Coll.*), 1897, *B.S.A.*
 Singer, Simon Augustus, A.B., (*Capital Univ.*), 1896, *Special*
 Snow, Robert Morris, Ph.B., 1897, *LL.B.*
 Stauch, Ray James, V.S., (*Ont. Vet. Coll.*), 1895, *D.V.M.*
 Stephens, Albert Woodward, A.B., (*Bucknell Coll.*), 1896, *B.S.A.*
 Stocking, William Alouzo, Jr., B.Agr., (*Storr's Agr. Coll.*), 1895, *B.S.A.*
 Strong, Morgan, LL.B., *Special*
 Strong, Will Austin, A.B., (*Stanford Univ.*), 1897, *LL.B.*
 Talbot, H Worthington, B.S., (*Columbian Univ.*), 1896, *E.E.*
 Thompson, Thomas Perrine, B.S. in M.E., (*Georgia School of Tech.*), 1896, *M.E.*
 Tobey, Harry Ransom, Ph. B., 1897, *LL.B.*
 Treganza, Howard Joseph, B.S. in E.E., (*Brooklyn Poly. Inst.*), 1897, *E.E.*
 Truman, James Steele, Ph.B., 1896, *LL.B.*
 Tschentscher, Rudolph, B.S. in M.E., (*Purdue Univ.*), 1897, *M.E.*
 Upson, Maxwell Mayhew, B.A., (*Univ. of N. Dakota*), 1896, *M.E.*
 Vandewalker, George Henry, Ph.B., 1897, *LL.B.*
 Wessels, Arthur Lewis, B.S., (*Northern Indiana Normal School*), 1897, *B.S.*
 Whitaker, Morris Mortimer, A.B., (*Yale*), 1896, *Special*
 Whitney, Alexander Barry, B.S. in M.E., (*Georgia School of Tech.*), 1896, *A.B.*
 Wilson, Benjamin West, B.Agr., (*Iowa Agr. Coll.*), 1896, *B.S.A.*
 Yale, William Truman, Ph.B., 1897, *LL.B.*
 Yates, Charles Halsted, A.B., (*Yale*), 1883, *B.S.A.*
 Young, Elva Hulburd, A.B., (*Wellesley Coll.*), 1896, *LL.B.*

UNDERGRADUATES.

The figures 1, 2, 3, 4, indicate Freshman, Sophomore, Junior, and Senior years, respectively, in the four year courses. In the two year course in Law, Jr. and 2 indicate Junior and Senior, respectively. In the three year course in Law, 1 indicates first year, and in Veterinary Medicine, 1, 2, and 3, indicate first, second, and third year, respectively. Special Students are not classified by years.

Abbey, Frank Humphrey,	<i>Watkins,</i>	1 Mech. Eng.
Abeling, Lizzie Louise,	<i>Canajoharie,</i>	3 Philosophy
Ackerman, Fred Lee,	<i>Edmeston,</i>	1 Architecture
Ackerman, Ira Jason,	<i>Brooklyn,</i>	1 Arts
Adams, Arthur,	<i>Utica,</i>	2 Civil Eng.
Adams, James Sartelle,	<i>Harford, Pa.,</i>	2 Arts
Adams, Mabele Winifred,	<i>Royalston, Mass.,</i>	3 Arts
Adams, Thomas Evarts,	<i>New York City,</i>	4 Arts
Affeld, William Charles,	<i>Chicago, Ill.,</i>	1 Civil Eng.
Albee, Robert Sumner, B.S.,	<i>Oshkosh, Wis.,</i>	2 Law
Albright, Johnson Stanley,	<i>Ontario,</i>	1 Arts
Alcock, Harry Hill, A.B.,	<i>Philadelphia, Pa.,</i>	3 Mech. Eng.
Aldrich, Ellis Leeds, B.L.,	<i>Brooklyn,</i>	2 Law
Alexander, Durand Charles, Jr.,	<i>Ithaca,</i>	1 Law
Alexander, Edward Renick,	<i>Canton, O.,</i>	1 Mech. Eng.
Alexander, Robert Leon,	<i>Springfield, O.,</i>	2 Elect. Eng.
Alexander, Ralph Vernon,	<i>Lancaster, Pa.,</i>	Jr. Law
Allen, Edward Bingham,	<i>Cleveland, O.,</i>	1 Arts
Allen, Herrick Cleveland,	<i>Richford,</i>	Jr. Law
Allen, Louis Edward,	<i>Auburn,</i>	1 Law
Allen, La Rue,	<i>Seneca Falls,</i>	2 Law
Allen, Mary,	<i>Millport,</i>	1 Arts
Allen, William Fitch,	<i>Holland Patent,</i>	2 Agriculture
Almy, Don Williams Robinson, A.B.,	<i>Jamestown,</i>	2 Law
Alsop, Susan Kite,	<i>Germantown, Pa.,</i>	4 Science
Alvord, Earl Barry,	<i>Rochester,</i>	1 Civil Eng.
Amerman, Charles Verrill,	<i>Danville, Pa.,</i>	2 Law
Ammon, Peter,	<i>Lee Center,</i>	Special Law
Amsler, Oscar Louis,	<i>Pittsburg, Pa.,</i>	2 Mech. Eng.
Anderson, Mary Eliza,	<i>Plattsburg,</i>	2 Philosophy
Anderson, Robert Harlow, A.B.,	<i>Boston, Mass.,</i>	4 Civil Eng.

Andrews, Arthur Lynn, B.L., M.L.,	<i>Ithaca,</i>	1 Law
Andrews, Evelyn Eglinton,	<i>Brooklyn,</i>	3 Science
Andrews, Edgar Lewis,	<i>Watkins,</i>	4 Agriculture
Andrews, Ethel Montgomery,	<i>Brooklyn,</i>	2 Science
Andrews, James Arthur,	<i>Bolivar,</i>	3 Arts
Andrews, Roland Franklin,	<i>Winsted, Conn.,</i>	1 Arts
Angell, Nina,	<i>Ithaca,</i>	2 Arts
Ansley, William Atmore,	<i>Englewood, Ill.,</i>	2 Law
Arbuckle, Walter Varian,	<i>Brocton, Ill.,</i>	2 Law
Armstrong, Alexander Floyd,	<i>Ilion,</i>	1 Civil Eng.
Arnold, Edith Sarah,	<i>Peru,</i>	3 Arts
Arthur, Susane Emma,	<i>Plattsburg,</i>	3 Arts
Artinstall, William,	<i>Chicago, Ill.,</i>	2 Civil Eng.
Ashby, Chester,	<i>Troy,</i>	1 Mech. Eng.
Atwater, Henry Harrison, Jr.,	<i>Brooklyn,</i>	1 Mech. Eng.
Atwood, Charles Cassels,	<i>Brooklyn,</i>	1 Elect. Eng.
Auchiucloss, William Kent,	<i>Bryn Mawr, Pa.,</i>	3 Mech. Eng.
Austin, George Arthur,	<i>Buffalo,</i>	1 Arts
Austin, Harry Burnside,	<i>Glens Falls,</i>	1 Law
Austin, Jessie Pearl Hazelton,	<i>Gouverneur,</i>	1 Arts
Austin, Mortimer V, Jr.,	<i>Auburn,</i>	Special Law
Averill, Earl Amos,	<i>Adams,</i>	2 Elect. Eng.
Avery, John Serpell,	<i>Rochester,</i>	3 Mech. Eng.
Ayers, Augustine Ridenour,	<i>Toledo, O.,</i>	2 Elect. Eng.
Baars, Theodore Dunwody,	<i>Pensacola, Fla.,</i>	1 Law
Babcock, Charles Walter,	<i>Pontiac, Ill.,</i>	1 Law
Backus, Philip Rodman,	<i>Brooklyn,</i>	2 Elect. Eng.
Baer, Joseph Louis,	<i>Chicago, Ill.,</i>	1 Arts
Bailey, Frederic William,	<i>Mechanicville,</i>	1 Mech. Eng.
Bailey, John Dwight,	<i>Dansville,</i>	2 Civil Eng.
Bailey, Theodore Layton,	<i>New York City,</i>	2 Philosophy
Baird, Helen Pauline,	<i>Alabama,</i>	2 Arts
Baker, Frank Sutherland,	<i>Rome,</i>	2 Arts
Baker, Julius Fred,	<i>Oswego,</i>	2 Mech. Eng.
Baker, William Charles,	<i>Buffalo,</i>	4 Agriculture
Baker, William Hogg,	<i>Philadelphia, Pa.,</i>	1 Mech. Eng.
Baldwin, Alice May,	<i>East Orange, N. J.,</i>	2 Arts
Baldwin, Austin Guy,	<i>Columbus, Ohio,</i>	1 Elect. Eng.
Ball, Albert,	<i>Forestville,</i>	1 Arts
Ballard, Eugene Scott,	<i>Ithaca,</i>	3 Architecture
Barker, Anna Laura,	<i>Clayton,</i>	2 Philosophy
Barker, John Hammond,	<i>Crown Point,</i>	3 Science

Barmon, Marcus,	<i>Buffalo,</i>	2 Law
Barnes, Clarence Lyon,	<i>Lockport,</i>	1 Veterinary
Barnes, Elephalet Austin,	<i>Syracuse,</i>	1 Mech. Eng.
Barney, Jesse Edmond,	<i>Bennington, Vt.,</i>	2 Elect. Eng.
Barney, Willard Albert,	<i>Mankato, Minn.,</i>	4 Arts
Barnum, Edith Elizabeth,	<i>Sanborn,</i>	4 Science
Barrett, Saxton Swayne,	<i>Chicago, Ill.,</i>	4 Elect. Eng.
Bartlett, Pliny,	<i>Gowanda,</i>	2 Law
Barton, Calvin Lewis,	<i>Little Meadows, Pa.,</i>	3 Civil Eng.
Bassett, Herbert Howard,	<i>New Britain, Ct.,</i>	2 Civil Eng.
Bassford, Abram, Jr.,	<i>Hartsdale,</i>	3 Civil Eng.
Bateman, Jerome Arch,	<i>Boonville,</i>	1 Law
Bateman, Ray Carlton,	<i>Scottsburg,</i>	3 Optional
Bauder, George Washington,	<i>Middletown, Pa.,</i>	1 Arts
Baughn, Elizabeth,	<i>Catskill,</i>	4 Science
Bayer, August Hector von,	<i>Ithaca,</i>	2 Civil Eng.
Bayer, William Hector von,	<i>Washington, D. C.,</i>	2 Agriculture
Baylis, Howard Abiah,	<i>Brooklyn,</i>	3 Optional
Baynes, William James,	<i>Rome,</i>	1 Law
Beardslee, Albert Theron,	<i>Himrod,</i>	1 Agriculture
Beardslee, Robert Winslow,	<i>Ithaca,</i>	2 Elect. Eng.
Beckwith, Oliver Russell,	<i>Collinsville, Ct.,</i>	2 Law
Beers, Charles Emerson,	<i>Glens Falls,</i>	1 Arts
Belden, Clifford Hubbard,	<i>Hartford, Ct.,</i>	3 Civil Eng.
Bell, Horace Milton,	<i>Washington, D. C.,</i>	1 Elect. Eng.
Bell, Jesse Merritt,	<i>Lockport,</i>	2 Mech. Eng.
Bellinger, Henry Myers, Jr.,	<i>Mohawk,</i>	4 Philosophy
Benjamin, Edith Sibley,	<i>Owego,</i>	4 Arts
Benjamin, Franklin Rogers, Jr.,	<i>Fishkill,</i>	3 Elect. Eng.
Bennett, Harry Phineas,	<i>Virginia City, Mont.,</i>	1 Mech. Eng.
Bennett, Noel Sisson,	<i>Albany,</i>	3 Science
Bensley, John Russell, Jr.,	<i>Chicago, Ill.,</i>	1 Optional
Bentley, Gordon Mausir,	<i>Great Barrington, Mass.,</i>	1 E. Eng.
Bentley, Wilton,	<i>Fluvanna,</i>	4 Elect. Eng.
Benton, Stuart Herbert,	<i>Brooklyn,</i>	1 Arts
Bergen, Charles William,	<i>Canajoharie,</i>	2 Mech. Eng.
Berry, Arthur Olin,	<i>Holyoke, Mass.,</i>	1 Mech. Eng.
Berry, Clyde Albion,	<i>Jamestown,</i>	3 Elect. Eng.
Bertolet, Heyman Ely, B.S.,	<i>Oley, Pa.,</i>	3 Civil Eng.
Beuck, Gustave Otto,	<i>Davenport, Iowa,</i>	1 Civil Eng.
Beyer, Herman Erasmus,	<i>Stapleton,</i>	1 Civil Eng.
Bianchi, Francesco,	<i>Montclair, N. J.,</i>	1 Elect. Eng.

Bickham, Edith Mae, B.S.,	<i>Honey Brook, Pa.,</i>	3 Arts
Binkerd, Agnes Brown,	<i>Brooklyn,</i>	3 Philosophy
Binkerd, Helen Dorsey,	<i>Brooklyn,</i>	2 Architecture
Bird, Paul Percy,	<i>Rochester,</i>	2 Mech. Eng.
Bisbee, Ben Hinman,	<i>Chicago, Ill.,</i>	1 Civil Eng.
Bishop, Roy Nelson,	<i>Cleveland, Ohio,</i>	1 Mech. Eng.
Bissell, Alphonso Dix, B.S.,	<i>Le Roy,</i>	2 Law
Bizley, Charles Elmer,	<i>New York City,</i>	Sp Agriculture
Black, Henry Van Treis,	<i>Mercersburg, Pa.,</i>	1 Mech. Eng.
Blaine, Nettie Tripp,	<i>Ithaca,</i>	3 Philosophy
Blair, Charles Hildreth, Jr.,	<i>Ithaca,</i>	4 Science
Blair, John Hamilton,	<i>Ithaca,</i>	1 Arts
Blake, Francis Eugene,	<i>North Adams, Mass.,</i>	3 Mech. Eng.
Blakeslee, John Ray,	<i>Whitehall,</i>	1 Elect. Eng.
Blakeslee, Robert Byron,	<i>Coal Glen, Pa.,</i>	3 Elect. Eng.
Blakeslee, Rollin Ashley,	<i>Weatherly, Pa.,</i>	3 Elect. Eng.
Blanchard, Arthur Samuel,	<i>Oak Park, Ill.,</i>	1 Mech. Eng.
Blauvelt, Fannie Jackson,	<i>Brooklyn,</i>	4 Philosophy
Bliss, Harriet Maranda,	<i>Ithaca,</i>	4 Philosophy
Bliss, Theodore,	<i>Troy,</i>	1 Arts
Blodgett, Henry William,	<i>St. Louis, Mo.,</i>	1 Law
Bloomington, Edith Elvira,	<i>Alabama,</i>	3 Arts
Blount, John Isham, B.E., C.E.,	<i>Faison, N. C.,</i>	4 Mech. Eng.
Bodell, Frederic G.,	<i>Auburn,</i>	1 Law
Bodine, George Floyd,	<i>Lodi,</i>	2 Law
Bodler, Oscar William,	<i>Germania, Pa.,</i>	1 Mech. Eng.
Boecher, Louis Henry,	<i>Spring Valley,</i>	1 Law
Bogle, Walter Scott, Jr.,	<i>Chicago, Ill.,</i>	2 Mech. Eng.
Bole, Joseph Kirkpatrick,	<i>Cleveland, O.,</i>	2 Science
Boone, Caroline Edith,	<i>Plainfield, N. J.,</i>	1 Arts
Borden, Garrick Mallory,	<i>Wilkes Barre, Pa.,</i>	3 Science
Borst, Victor Dow,	<i>Seward,</i>	1 Arts
Boskowitz, Jesse Louis,	<i>New York City,</i>	4 Optional
Bostwick, Henry Montgomery,	<i>Ithaca,</i>	1 Elect. Eng.
Bowdoin, Harold Mortimer,	<i>New York City,</i>	3 Architecture
Bowen, Fred Jay,	<i>Haskinville,</i>	1 Agriculture
Bowen, Frederick Edward,	<i>Troy,</i>	2 Law
Bowman, Josephine Edith,	<i>Hornellsville,</i>	2 Arts
Boyce, Charles Frederick,	<i>Duluth, Minn.,</i>	2 Elect. Eng.
Boynton, Lawrence William,	<i>Whitney's Point,</i>	1 Law
Bozeman, Kathryn,	<i>McConnellsville, O.,</i>	3 Philosophy
Bradley, Herbert Chapman,	<i>Montclair, N. J.,</i>	1 Mech. Eng.

Bradley, Philip Henry,	<i>Chicago, Ill.,</i>	3 Science
Brady, John Joseph,	<i>Skaneateles,</i>	2 Law
Brand, Walter Nathan,	<i>Ilion,</i>	1 Civil Eng.
Bramen, William James,	<i>Bolivar,</i>	1 Law
Branson, Craig Ridgway,	<i>Philadelphia, Pa.,</i>	2 Elect. Eng.
Breckenridge, Clarence Edward,	<i>St. Louis, Mo.,</i>	2 Elect. Eng.
Brereton, Tallmadge Hepburn,	<i>Milford, Conn.,</i>	1 Science
Brewster, Henry Baum,	<i>Syracuse,</i>	3 Elect. Eng.
Brickelmaier, Alice Gertrude,	<i>Brooklyn,</i>	3 Science
Bricker, Alice Haverstick,	<i>Lititz, Pa.,</i>	4 Arts
Briggs, Frederick Adams,	<i>Waterloo, Canada</i>	4 Letters
Briggs, Lynn Hazeltine,	<i>Saginaw, Mich.,</i>	1 Mech. Eng.
Bright, William Ralph,	<i>St. Louis, Mo.,</i>	2 Civil Eng.
Briner, Emil Amandus,	<i>New York City,</i>	1 Mech. Eng.
Brintnall, Charles Shattuck,	<i>Chicago, Ill.,</i>	2 Science
Brizse, Norman Charles,	<i>Brooklyn,</i>	1 Mech. Eng.
Brocksmitt, John Cornelius,	<i>Ithaca,</i>	3 Elect. Eng.
Brockway, Roland Orville,	<i>Beach Haven, Pa.,</i>	2 Law
Brooks, Arthur DeWitt,	<i>Cleveland, O.,</i>	2 Science
Brooks, Edwin Lewis,	<i>Jamestown,</i>	1 Law
Brooks, Henry Chapin,	<i>Hartford, Conn.,</i>	2 Law
Brooks, Revilo Talcott,	<i>Rushford,</i>	2 Architecture
Brower, Irving Clinton,	<i>Philadelphia, Pa.,</i>	2 Civil Eng.
Brown, Clifton Beckwith,	<i>Cleveland, O.,</i>	1 Architecture
Brown, Collingwood Bruce, Jr.,	<i>Ithaca,</i>	1 Civil Eng.
Brown, Frank Bement,	<i>Glens Falls,</i>	2 Civil Eng.
Brown, Fraser,	<i>Albany,</i>	1 Law
Brown, Harold Warner,	<i>Columbus, O.,</i>	4 Science
Brown, Lyman Holden,	<i>Odessa,</i>	4 Elect. Eng.
Brown, Nancy Fairfax,	<i>Winchester, Va.,</i>	3 Arts
Brown, Ralph Winthron,	<i>Ithaca,</i>	1 Arts
Brown, Wallace Macdonald,	<i>Brooklyn,</i>	1 Mech. Eng.
Browne, Edwin Sewall,	<i>Cleveland, O.,</i>	3 Science
Brownell, Burton Hoag, A.B.,	<i>Ithaca,</i>	1 Law
Brownell, Roscoe David,	<i>Fruit Valley,</i>	1 Law
Browning, Faith,	<i>Brooklyn,</i>	3 Science
Browning, Frederick,	<i>Chatham,</i>	4 Architecture
Bruce, Frank L,	<i>Norfolk, Va.,</i>	2 Philosophy
Bruckner, Arthur,	<i>Ithaca,</i>	4 Mech. Eng.
Brustlein, Charles Henry, B.S.,	<i>New York City,</i>	3 Mech. Eng.
Bryant, Arthur Parsons,	<i>Newtonville, Mass.,</i>	1 Law
Bryant, Fred Lafayette, B.S.,	<i>Pocolet, S. C.,</i>	1 Elect. Eng.

Bryant, John Jay, Jr.,	<i>Ithaca,</i>	2 Law
Buchanan, Myron Webster,	<i>Clayville,</i>	2 Elect. Eng.
Buck, Ellard A.,	<i>West Groton,</i>	2 Philosophy
Buck, Paul Howard,	<i>Randolph,</i>	4 Agriculture
Bull, Ernest Miller,	<i>Elizabeth, N. J.,</i>	4 Science
Bull, George Amos,	<i>Rural Hill,</i>	Special Agriculture
Bullock, Stuart Dickenson,	<i>Killbuck,</i>	2 Elect. Eng.
Bump, Archie Edmund,	<i>Binghamton,</i>	2 Mech. Eng.
Burdett, William Fatherby,	<i>St. John, N. B., Can.,</i>	Sp. Mech. Eng.
Burgess, Frederick,	<i>Milton,</i>	Special Agriculture
Burnett, William John,	<i>Brooklyn,</i>	1 Mech. Eng.
Burrell, Edward Parker,	<i>Hall's Corners,</i>	4 Elect. Eng.
Burrows, George Frederick,	<i>Buffalo,</i>	2 Elect. Eng.
Bursley, Joseph Aldrich,	<i>Ft. Wayne, Ind.,</i>	2 Mech. Eng.
Burt, Le Van Merchant,	<i>West New Brighton,</i>	1 Civil Eng.
Burwell, Robert Lemmon,	<i>Harwood, Md.,</i>	1 Civil Eng.
Bushnell, Horace Carlton,	<i>Davenport, Iowa,</i>	1 Mech. Eng.
Butchers, Earle Burdette,	<i>Madison,</i>	1 Civil Eng.
Butler, Henry Weil,	<i>New York City,</i>	2 Elect. Eng.
Butler, William Marsh,	<i>Syracuse,</i>	1 Civil Eng.
Button, Ernest David,	<i>Schaghticoke,</i>	2 Civil Eng.
Cadogan, Gertrude Sweetland,	<i>Hornellsville,</i>	2 Science
Caine, Thomas Andrew,	<i>Nunda,</i>	1 Agriculture
Caldwell, John Alexander, Jr.,	<i>Cincinnati, O.,</i>	3 Science
Caldwell, John Richard,	<i>Newburgh,</i>	3 Mech. Eng.
Camerou, Charles Raymond,	<i>York,</i>	4 Arts
Cameron, Dwight Frederick, Jr.,	<i>Chicago, Ill.,</i>	Special Arts
Campbell, Harry Dana,	<i>Brooklyn,</i>	2 Mech. Eng.
Campbell, James Chase,	<i>Bath, Me.,</i>	1 Elect. Eng.
Canfield, Amos,	<i>Van Etten,</i>	1 Arts
Cardullo, Forrest Ellwood,	<i>Titusville, Pa.,</i>	1 Mech. Eng.
Carpenter, Archie Wayland,	<i>Omaha, Neb.,</i>	4 Philosophy
Carpenter, Clarence Edson,	<i>Canaan Four Corners,</i>	4 E. E.
Carpenter, Louis Schenck,	<i>Canaan Four Corners,</i>	2 Law
Carpenter, Nellie,	<i>Putnam, Ct.,</i>	2 Philosophy
Carr, Edward Wheeler, Jr.,	<i>Rochester,</i>	1 Elect. Eng.
Carr, Louis Hamilton,	<i>Niagara Falls,</i>	Jr. Law
Carrick, Krickel Kemer,	<i>Brooklyn,</i>	2 Philosophy
Carrier, George Hurd,	<i>Elmira,</i>	1 Mech. Eng.
Carrier, Willis Haviland,	<i>Buffalo,</i>	1 Elect. Eng.
Carter, Allie Devere,	<i>Tacoma, Wash.,</i>	1 Civil Eng.
Carter, Effie Adeline,	<i>Baldwins,</i>	4 Science

Carter, Emmett Browning,	<i>Owego,</i>	3 Mech. Eng.
Carter, Marion Hamilton,	<i>Boston, Mass.,</i>	4 Science
Carton, John Benoist,	<i>St. Louis, Mo.,</i>	1 Elect. Eng.
Caruth, William Alexander,	<i>Brooklyn,</i>	1 Civil Eng.
Carver, Theodore Vaughn,	<i>Panama,</i>	4 Arts
Cary, Ernest Bacon,	<i>Lockport,</i>	2 Mech. Eng.
Cary, Helen Louise,	<i>Binghamton,</i>	4 Arts
Case, Francis Mills, Jr.,	<i>Findlay, Ohio,</i>	3 Mech. Eng.
Casler, Harry,	<i>Little Falls,</i>	4 Science
Catlin, Charles Howard,	<i>Chicago, Ill.,</i>	2 Science
Cavarly, Jane Day,	<i>San Francisco, Cal.,</i>	1 Arts
Chalmers, Charles Edward Popp,	<i>Williamsville,</i>	2 Law
Chalmers, David Duncan,	<i>Williamsville,</i>	2 Law
Chandler, Elbert Goodsell,	<i>Yalesville, Conn.,</i>	2 Mech. Eng.
Chandler, James Halsey,	<i>Ithaca,</i>	1 Architecture
Chapman, Cloyd Mason,	<i>Akron, O.,</i>	3 Mech. Eng.
Chapman, Carlton Throop,	<i>Palmyra,</i>	2 Civil Eng.
Chapman, Frances Elizabeth,	<i>Unadilla Forks,</i>	2 Philosophy
Chase, Arthur Willey,	<i>Ogdensburg,</i>	4 Mech. Eng.
Chase, Giles Aquilla,	<i>Massena,</i>	1 Law
Chase William Edwin,	<i>Crystal Springs,</i>	2 Elect. Eng.
Chatillon, George Edmund,	<i>New York City,</i>	1 Mech. Eng.
Chatillon, Ralph Frederick,	<i>New York City,</i>	1 Mech. Eng.
Cheney, Nelson Welch,	<i>Buffalo,</i>	3 Arts
Cheyney, Edward Gleen,	<i>Washington, D. C.,</i>	2 Arts
Childs, Wallace Jones,	<i>Utica,</i>	2 Elect. Eng.
Chisholm, Kenneth Ogilive,	<i>Brooklyn,</i>	1 Law
Church, Alfred Whiting,	<i>Elgin, Ill.,</i>	1 Civil Eng.
Church, Edith Schuyler,	<i>Ithaca,</i>	1 Arts
Clark, Albert Harvey,	<i>Dryden,</i>	4 Philosophy
Clark, Alfred Hull,	<i>Buffalo,</i>	3 Arts
Clark, Berton Duane,	<i>Fabius,</i>	2 Law
Clark, Daniel B,	<i>Le Roy,</i>	1 Agriculture
Clark, David, B.E., M.E., C.E.,	<i>Raleigh, N. C.,</i>	4 Mech. Eng.
Clark, Dean,	<i>Plainfield, N. J.,</i>	3 Mech. Eng.
Clark, Edward Frank,	<i>Newburgh,</i>	1 Law
Clark, Frank Durbon, B.S.,	<i>Rochester,</i>	3 Elect. Eng.
Clark, George Morton,	<i>West New Brighton,</i>	1 Civil Eng.
Clark, Henry Bogert,	<i>New Rochelle,</i>	1 Arts
Clark, Herman Everette,	<i>Rochester, N. H.,</i>	3 Science
Clark, Harold Haines,	<i>Buffalo,</i>	1 Elect. Eng.
Clark, Lewis Harold,	<i>Rockford, Ill.,</i>	2 Elect. Eng.

Clark, Montgomery Hunt,	<i>New Rochelle,</i>	1 Mech. Eng.
Clauson, Robert,	<i>Apalachin,</i>	1 Arts
Clegg, Lincoln,	<i>Utica,</i>	1 Civil Eng.
Cleghorn, Guy Forsythe,	<i>Green Island,</i>	2 Civil Eng.
Cleveland, Frederick Aldrich,	<i>Palmyra,</i>	3 Arts
Clothier, Katherine Evelyn,	<i>Fredonia,</i>	4 Philosophy
Coates, Henry Troth, Jr.,	<i>Berwyn, Pa.,</i>	2 Mech. Eng.
Cobb, Lester Norton,	<i>Cleveland, O.,</i>	3 Science
Cobleigh, Henry Rice,	<i>Brooklyn,</i>	1 Mech. Eng.
Cockburn, Frank Melvin,	<i>Silver Creek,</i>	Special Agriculture
Coffin, William Jay,	<i>Albany,</i>	4 Elect. Eng.
Cohen, Herbert Daniel,	<i>Nyack,</i>	1 Law
Coit, Charles Winn,	<i>Holyoke, Mass.,</i>	2 Civil Eng.
Cole, William Flintham,	<i>Albion,</i>	1 Civil Eng.
Collins, Edward J,	<i>Port Jervis,</i>	2 Law
Collins, Florence Belle,	<i>Syracuse,</i>	2 Science
Colson, Frederick Diamond, B.S.,	<i>Buffalo,</i>	2 Law
Colton, Leland Alanson,	<i>Skaneateles,</i>	Jr. Law
Conable, Barber Benjamin,	<i>Warsaw,</i>	1 Arts
Conklin, Daniel Beckel,	<i>Dayton, O.,</i>	2 Science
Conklin, William Eltinge,	<i>Fishkill,</i>	2 Civil Eng.
Conkling, Leon De Vere,	<i>Elmira,</i>	1 Civil Eng.
Connor, Kathleen Oona,	<i>Burlington, Iowa,</i>	4 Arts
Conover, Franklin John,	<i>Buffalo,</i>	Special Agriculture
Conrow, Georgiana,	<i>Ithaca,</i>	3 Arts
Cook, Asa Boyd,	<i>Raceville,</i>	Special Agriculture
Cook, Hugh Oliver,	<i>Washington, D. C.,</i>	2 Arts
Cook, Ralph Victor,	<i>Washington, D. C.,</i>	4 Mech. Eng.
Cooke, Alexander Hamilton,	<i>New York City,</i>	4 Mech. Eng.
Cooley, Erwin Stratton,	<i>Plainfield, N. J.,</i>	3 Mech. Eng.
Corcilus, Inez,	<i>Jamestown,</i>	2 Arts
Corr, Joseph Aloysius,	<i>Troy,</i>	1 Law
Corwin, Clarence Elbert,	<i>Greenport,</i>	3 Philosophy
Costello, Margaret Clara,	<i>Syracuse,</i>	2 Philosophy
Cottrell, Leon W,	<i>Albany,</i>	1 Mech. Eng.
Couch, Harvey Joel,	<i>Catharine,</i>	1 Arts
Coughlin, Samuel Britton, Jr.,	<i>Burlington, N. J.,</i>	1 Mech. Eng.
Couper, Henry Joseph,	<i>Morristown,</i>	Special Agriculture
Covell, Oliver James,	<i>Springville,</i>	3 Philosophy
Coward, Herbert,	<i>Pittston, Pa.,</i>	1 Mech. Eng.
Cowdin, Thomas Hill,	<i>Batavia,</i>	2 Mech. Eng.
Cowing, Herbert Lee,	<i>Brooklyn</i>	2 Mech. Eng.

Coyle, Clifford DeWitt,	<i>St. Louis, Mo.,</i>	1 Law
Craig, John,	<i>Ithaca,</i>	Special Agriculture
Crandall Harry Kinney,	<i>Osceola, Pa.,</i>	1 Arts
Crandall, Walter Solomon,	<i>Chatham,</i>	1 Law
Crans, Anna Maria,	<i>Grand Forks, N. Dak.,</i>	2 Science
Crary, Charles Judson,	<i>La Fayette, Ind.,</i>	1 Law
Crary, Leon George,	<i>Canton,</i>	3 Arts
Crawford, John Gorham,	<i>Chicago, Ill.,</i>	1 Mech. Eng.
Crofts, George Davis,	<i>Buffalo,</i>	1 Arts
Crombie, Grace Ethelyn,	<i>Oswego,</i>	Special Arts
Cross, Charles Wood,	<i>Cleveland, O.,</i>	1 Mech. Eng.
Crossman, Gilbert,	<i>Huntington,</i>	4 Elect. Eng.
Crouch, Clifford Marcellous,	<i>Cohocton,</i>	Special Agriculture
Crouch, Frank Monroe,	<i>Brooklyn,</i>	1 Arts
Crouch, Harold Chester,	<i>Oswego,</i>	2 Mech. Eng.
Crowl, Mabel Robinson,	<i>Ithaca,</i>	1 Arts
Cuervo José Maria,	<i>Havana, Cuba,</i>	2 Mech. Eng.
Cummings, Bernard Williams,	<i>Ithaca,</i>	1 Optional
Cummings, Everett Darius,	<i>East Clarence,</i>	2 Law
Cummings, Thomas James,	<i>Dunkirk,</i>	2 Law
Cunningham, William David,	<i>Ellenville,</i>	1 Law
Cunningham, William John,	<i>Sag Harbor,</i>	1 Civil Eng.
Curran, Benajah Standley, Jr.,	<i>Binghamton,</i>	Jr. Law
Curry, Albert,	<i>Pittsburg, Pa.,</i>	1 Civil Eng.
Curtis, Allen,	<i>Palmer,</i>	2 Mech. Eng.
Curtis Ralph Wright,	<i>Beloit, Ala.,</i>	1 Agriculture
Curtis Clarence James,	<i>Ballston Spa,</i>	1 Mech. Eng.
Cuyle, John Jay,	<i>Oswego,</i>	2 Mech. Eng.
Dalzell, William Cox, Jr.	<i>Egremont, Mass.,</i>	1 Mech. Eng.
Daniel, James Mitchell, Jr.,	<i>New York City,</i>	1 Civil Eng.
Darrow, Marius Schoonmaker,	<i>Kingston,</i>	3 Civil Eng.
Darrow, Wilton Joseph,	<i>Lakewood,</i>	3 Civil Eng.
Daughaday, Carlos Colton,	<i>St. Louis, Mo.,</i>	2 Science
Dautel, Carl,	<i>Cleveland, O.,</i>	1 Civil Eng.
Davall, Harold Jefferson,	<i>Camden, N. J.,</i>	1 Civil Eng.
Davenport, John Kilbourn Warner,	<i>S. Hadley Falls, Mass.,</i>	1 E. Eng.
Davidson, Robert Irving,	<i>Wiscoy,</i>	3 Mech. Eng.
Davis, Alleine Belle,	<i>Ithaca,</i>	4 Letters
Davis Esther Mercy,	<i>Oneida,</i>	3 Optional
Davis, Harry Leander,	<i>Syracuse,</i>	1 Law
Davis, John Charles,	<i>Binghamton,</i>	2 Civil Eng.
Davis, Leslie Ammerton,	<i>Port Jefferson,</i>	4 Philosophy

Day, George Wilcox,	<i>Lockport,</i>	1 Elect. Eng.
Dean, Howard Sumner,	<i>Detroit, Mich.,</i>	4 Philosophy
Dean, Theron Skidmore,	<i>Moore's Mills,</i>	Special Agriculture
Dearborn, Richard Harold, A. B.,	<i>Salem, Oregon,</i>	2 Elect. Eng.
Defendorf, Days Elizabeth,	<i>Fairport,</i>	4 Philosophy
De Groat, Clinton Knowlton,	<i>Buffalo,</i>	4 Arts
De La Mater, Stephen Truesdell,	<i>Auburn,</i>	2 Civil Eng.
De Lamater, Van Ness,	<i>Hudson,</i>	2 Mech. Eng.
De Lamater, William Jonas,	<i>Hudson,</i>	1 Arts
Deming, Robert,	<i>Cleveland, O.,</i>	2 Mech. Eng.
Dempsey, John Joseph, E. E.,	<i>Manistee, Mich.,</i>	3 Civil Eng.
Denio, Hiram Henry,	<i>Chazy,</i>	4 Science
Dennis, Evelyn Hakes,	<i>Ithaca,</i>	3 Philosophy
Dennis, Harry Whiting,	<i>Ithaca,</i>	3 Civil Eng.
Dennis, Mary Rebekah,	<i>Charlotte,</i>	3 Arts
Denton, Carrie Mildred,	<i>Forestport,</i>	4 Philosophy
Derr, Ralph,	<i>Wilkes-Barre, Pa.,</i>	2 Mech. Eng.
Devendorf, William Frederick,	<i>Watertown,</i>	4 Elect. Eng.
Dewsnap, George Gippes,	<i>New York City,</i>	1 Law
Dexter, Frank Henry,	<i>Brooklyn,</i>	4 Elect. Eng.
Dickerson, Wilber Howard,	<i>Maine,</i>	2 Mech. Eng.
Dickinson, Alice Lovejoy,	<i>Denver, Colorado,</i>	1 Architecture
Dickinson, Philip Storrs,	<i>Denver, Colorado,</i>	1 Arts
Dimon, Theodore,	<i>Utica,</i>	4 Mech. Eng.
Dimo, Theodore Huntting,	<i>Hammondsport,</i>	2 Science
Diven, Alexander Samuel, A. B.,	<i>Elmira,</i>	Optional Law
Dobbin, Elizabeth Calder,	<i>Fairport,</i>	1 Arts
Dobbin, Mabel Calder,	<i>Fairport,</i>	4 Philosophy
Dodge, Harriet,	<i>Buffalo,</i>	2 Science
Dodge, Norman,	<i>Washington, D. C.,</i>	2 Science
Dodge, Robert Irving,	<i>Brooklyn,</i>	1 Architecture
Doerffling, Arrey,	<i>Elmhurst,</i>	1 Architecture
Doherty, Mary,	<i>Cincinnati, Ohio,</i>	3 Arts
Doig, Walter Perry,	<i>Boonville,</i>	3 Arts
Donohue, Robert Daniel,	<i>Skaneateles,</i>	1 Law
Donovan, Irwin,	<i>St. Louis, Mo.,</i>	1 Arts
Donovan, Richard James,	<i>Brooklyn,</i>	2 Elect. Eng.
Dorn, Ralph Waldo,	<i>Jamestown,</i>	2 Arts
Dorner, William Frederick,	<i>Camden, N. J.,</i>	1 Elect. Eng.
Dougherty, Edward Emmett, A. B.,	<i>Atlanta, Ga.,</i>	4 Architecture
Doughty, Annie Wilson,	<i>Portland, Me.,</i>	Special Arts
Doughty, John Henry, Jr.,	<i>Matteawan,</i>	3 Mech. Eng.

Dovey, Adelaide Hayes,	<i>Philadelphia, Pa.,</i>	Special Arts
Downing, Minnie May,	<i>Meriden, Ct.,</i>	Special Arts
Downs, Irving Garfield,	<i>Riverhead,</i>	1 Mech. Eng.
Drake, Allen Norton,	<i>Rochester,</i>	3 Science
Drake, Elizabeth Guest,	<i>Buffalo,</i>	3 Arts
Drake, Ernest Allen,	<i>Ithaca,</i>	3 Mech. Eng.
Drake, John Thomas,	<i>Chester,</i>	1 Elect. Eng.
Drake, Marcus Motier, Jr.,	<i>Buffalo,</i>	3 Elect. Eng.
Dresser, Gardiner Sherman,	<i>Brooklyn,</i>	2 Philosophy
Dresser, John Olmsted,	<i>Brooklyn,</i>	1 Arts
Druar, John Fenimore,	<i>Buffalo,</i>	1 Mech. Eng.
Druskin, Samuel Jerome,	<i>New York City,</i>	3 Optional
Du Bois, Chester Buck,	<i>Bridgeton, N. J.,</i>	1 Mech. Eng.
Duncan, Charles Henry,	<i>Ithaca,</i>	3 Mech. Eng.
Dunham, Frederic Gibbons,	<i>Buffalo,</i>	1 Arts
Dunlavey, Robert Joseph,	<i>Ithaca,</i>	Special Agriculture
Dustan, Henry Winfield,	<i>Morristown, N. J.,</i>	3 Veterinary
Dutcher, Elsie Maria,	<i>Owego,</i>	2 Philosophy
Eades, Jessie Margaret,	<i>Streator, Ill.,</i>	2 Philosophy
Earl, Ralph Douglas,	<i>Herkimer,</i>	2 Law
Earle, Enoch Walter,	<i>Worcester, Mass.,</i>	1 Civil. Eng.
Earle, James Richard,	<i>Eddytown,</i>	1 Elect. Eng.
Earll, Carrie May,	<i>Syracuse,</i>	4 Philosophy
Eastman, Frank Hall,	<i>Falls Church, Va.,</i>	3 Elect. Eng.
Eccleston, Robert Cook,	<i>Oxford,</i>	1 Mech. Eng.
Eckler, Charles David,	<i>Pittsford,</i>	3 Architecture
Edgerton, Chauncey Townsend,	<i>Richmond Hill,</i>	1 Mech. Eng.
Edmondson, William George,	<i>Titusville, Pa.,</i>	1 Mech. Eng.
Eells, Henry Wilson,	<i>Walton,</i>	1 Civil Eng.
Egeberg, Hans Olof,	<i>Samolenene, Norway,</i>	2 Civil Eng.
Ehrhart, Raymond Nelson,	<i>Mahaney City, Pa.,</i>	1 Elect. Eng.
Ellis, Charles Talcott,	<i>Owego,</i>	Jr. Law
Ellis, Williard Waldo,	<i>Canaseraga,</i>	1 Arts
Elting, Mabelle,	<i>New Paltz,</i>	1 Arts
Emerson, Luther Lee,	<i>Brooklyn,</i>	4 Elect. Eng.
Emery, Albert Hamilton, Jr.,	<i>Stamford, Conn.,</i>	4 Mech. Eng.
Empey, Arnold Lazier,	<i>Rochester,</i>	2 Law
Engle, Francis Jesse,	<i>Maryville, Tenn.,</i>	2 Civil Eng.
Engle, Elsie Ross,	<i>Ithaca,</i>	3 Arts
Englert, Alfred,	<i>Brooklyn,</i>	2 Mech. Eng.
English, Clifton Benson,	<i>Greenville, Pa.,</i>	1 Mech. Eng.
Eshelman, Clarence Metz,	<i>Niagara Falls,</i>	4 Elect. Eng.

Esmond, Irwin, Ph.B.,	<i>Ballston Spa,</i>	2 Law
Estabrook, Charles Scott,	<i>Binghamton,</i>	1 Law
Estabrook, William Sears,	<i>Binghamton,</i>	2 Philosophy
Etsler, Clarence Bartlett,	<i>Gowanda,</i>	1 Law
Eurick, Frank, Jr.,	<i>Toledo, O.,</i>	3 Architecture
Eustaphieve, Clarence Alexis,	<i>Buffalo,</i>	1 Science
Evans, John Clark,	<i>Remsen,</i>	2 Law
Everett, Frederick,	<i>Potsdam,</i>	3 Science
Everett, George Abram,	<i>Potsdam,</i>	3 Arts
Farmer, Frank Malcolm,	<i>Ilion,</i>	3 Elect. Eng.
Farnham, Nye Harrison,	<i>Buffalo,</i>	4 Science
Farnham, Reuben Humphreys, Jr.,	<i>Attica,</i>	2 Law
Farrell, Albert Theodore,	<i>Escandabo, Mich.,</i>	2 Architecture
Faust, John Wesley,	<i>Poughkeepsie,</i>	2 Science
Faville, Mark Ray,	<i>Dolgeville,</i>	1 Civil Eng.
Fay, Clarence Huntington.	<i>Bath,</i>	1 Arts
Feigenspan, Christian William,	<i>Newark, N. J.,</i>	4 Optional
Felldin, Jennie Wilhelmina Sophie,	<i>Auburn,</i>	2 Arts
Fellows, George Peters,	<i>New York City,</i>	1 Mech. Eng.
Felton, Charles Emery,	<i>North Tonawanda,</i>	4 Civil Eng.
Fenno, Ray Kelly,	<i>Union City, Pa.,</i>	1 Law
Fenton, James Burton,	<i>Buffalo,</i>	4 Arts
Ferguson, George Alexander,	<i>Rochester,</i>	1 Civil Eng.
Ferguson, James Easton,	<i>Toledo, O.,</i>	2 Civil Eng.
Ferguson, John Scott, Jr.,	<i>Pittsburg, Pa.,</i>	1 Arts
Ferguson, Margaret Clay,	<i>Phelps,</i>	Special Arts
Fiero, Harry Hunt,	<i>Milo Center,</i>	1 Elect. Eng.
Fimple, Loren Pearl Redman, B.S.,	<i>Colon, Mich.,</i>	2 Law
Fish, Edward Charles,	<i>Salamanca,</i>	1 Law
Fish, Pierre Augustine, B.S., D.Sc.,	<i>D. V.S., Ithaca,</i>	3 Veterinary
Fisher, Arthur William,	<i>Pultneyville,</i>	4 Philosophy
Fisher, Carl De Witt,	<i>Johnstown, Pa.,</i>	2 Philosophy
Fisher, Nathan Stilson,	<i>Norwich,</i>	3 Civil Eng.
Fisher, Schuyler Lyon,	<i>Cincinnati, O.,</i>	3 Mech. Eng.
Fisher, Wager,	<i>Bryn Mawr, Pa.,</i>	3 Civil Eng.
Fiske, Christabel Forsythe,	<i>Ithaca,</i>	4 Philosophy
Fitch, Squire E,	<i>Westfield,</i>	2 Civil Eng.
Fitts, Louisa,	<i>Moravia,</i>	3 Science
Fitzpatrick, John Tracy,	<i>Brooklyn,</i>	2 Arts
Fitzpatrick, Walter Joseph,	<i>Waterliet,</i>	2 Elect. Eng.
Flannery, John L, Jr.,	<i>Chicago, Ill.,</i>	1 Law
Fleming, Bryant,	<i>Buffalo,</i>	Special Agriculture

Fleming, Ward Leeland,	<i>Guilford,</i>	3 Optional
Fletcher, Roy Emery,	<i>Ithaca,</i>	2 Philosophy
Flippen, William Henry,	<i>Dallas, Tex.,</i>	2 Law
Flocken, Charles Fred,	<i>Englewood, Ill.,</i>	1 Agriculture
Fluhrer, Gerald Bishop,	<i>Albion,</i>	1 Arts
Foley, Marcella Marie,	<i>Ilion,</i>	2 Philosophy
Folk, Frederick Jackson,	<i>Brooklyn,</i>	1 Elect. Eng.
Follmer, William Wilcox, B.S.,	<i>Williamsport, Pa.,</i>	1 Mech. Eng.
Foote, James Benedict,	<i>Rome,</i>	4 Civil Eng.
Ford, Walter Stebbins,	<i>Elmira,</i>	2 Elect. Eng.
Forney, Mobray William,	<i>Brooklyn,</i>	1 Mech. Eng.
Foster, Henry Hubbard,	<i>Buffalo,</i>	3 Arts
Foster, Herbert Hamilton,	<i>Canandaigua,</i>	2 Philosophy
Foster, Walter Lee,	<i>Dayton,</i>	2 Law
Fox, Matthew William,	<i>Fonda,</i>	1 Law
Francis, Lee Maston,	<i>Knoxville, Pa.,</i>	4 Optional
Frank, Alfred,	<i>Cincinnati, O.,</i>	4 Civil Eng.
Frank, Harry Allyn,	<i>Omaha, Neb.,</i>	2 Law
Fraser, James Kenneth,	<i>Chicago, Ill.,</i>	2 Architecture
Frear, Edward Hughson,	<i>Ithaca,</i>	1 Law
Freeman, Alfred,	<i>Plymouth, Pa.,</i>	4 Architecture
French, S Webster,	<i>Iantha, Mo.,</i>	2 Science
Fronheiser, Jacob Anton,	<i>Johnstown, Pa.,</i>	1 Law
Frost, Arthur Bertrand,	<i>Ithaca,</i>	1 Civil Eng.
Fuller, Darius Howard,	<i>Portland, Me.,</i>	2 Science
Fuller, Jesse, Jr.,	<i>Brooklyn,</i>	3 Science
Fuller, William Allison,	<i>Albany,</i>	1 Elect. Eng.
Fuller, Weston Earle,	<i>Portland, Me.,</i>	2 Civil Eng.
Fullerton, William James,	<i>Jackson, O.,</i>	4 Mech. Eng.
Gaehr, David,	<i>North Amherst, O.,</i>	Sp. Mech. Eng.
Gage, Homer Howell,	<i>Bergen,</i>	3 Philosophy
Gage, Lloyd Garrison,	<i>Wilmette, Ill.,</i>	1 Civil Eng.
Gaines, Annie Mary,	<i>Meriden, Ct.,</i>	Special Arts
Galbraith, Alfred Gregory,	<i>Oneida Castle,</i>	1 Law
Galindo, Inscencio, Jr.,	<i>Ithaca,</i>	1 Civil Eng.
Gamwell, Richard Holland,	<i>Pittsfield, Mass.,</i>	2 Elect. Eng.
Gannett, Frank Ernest,	<i>Syracuse,</i>	4 Arts
Gannon, James Henry, Jr.,	<i>Canton,</i>	3 Philosophy
Gardner, Otis Howard,	<i>West Elmira,</i>	Jr. Law
Garretson, Albert Merrifield,	<i>Buffalo,</i>	2 Arts
Gaskill, James Phillips,	<i>Woonsocket, R. I.,</i>	1 Arts
Gay, Carl Warren,	<i>Ithaca,</i>	2 Veterinary

Gay, John Sedgwick,	<i>Seneca Falls,</i>	1 Arts
Gaylord, Carolyn Bell,	<i>Ithaca,</i>	2 Arts
Geer, Howard Earl,	<i>Ithaca,</i>	1 Mech. Eng.
Geer, Jennie Witler,	<i>Central Village, Ct.,</i>	2 Science
Geer, William Chauncey,	<i>Potsdam,</i>	Special Arts
Gelder, Walter Hudson,	<i>Flint,</i>	4 Civil Eng.
Genger, Philip Bertram,	<i>Elmira,</i>	1 Elect. Eng.
Gennet, Charles Wescott, Jr.,	<i>Binghamton,</i>	3 Mech. Eng.
Gerken, Walter Diedrich,	<i>Jersey City, N. J.,</i>	2 Science
Getman, Frank Lawton,	<i>Lyons,</i>	3 Civil Eng.
Gibbs, Archie Dana,	<i>Norwich,</i>	2 Law
Gibbs, Harley Stuart,	<i>Pittsburg, Pa.</i>	4 Civil Eng.
Gibbs, Warren Rockwood,	<i>Chicago, Ill.,</i>	1 Architecture
Gignoux, John Ernest,	<i>Albany,</i>	4 Science
Gilbert, Howard Ludlow,	<i>Baltimore, Md.,</i>	1 Mech. Eng.
Gilbert, John Parke,	<i>Willard,</i>	1 Mech. Eng.
Gilchrist, James Montgomery,	<i>Chicago, Ill.,</i>	2 Elect. Eng.
Gillette, Mary Cynthia,	<i>Rochester,</i>	1 Arts
Gilliam, Marcus James,	<i>Sheridan, Ind.,</i>	1 Arts
Gilmore, John Washington,	<i>Fort Worth, Texas,</i>	1 Agriculture
Giltner, Louis Curtis,	<i>Ithaca,</i>	2 Civil Eng.
Givens, Harrison Crandall,	<i>Ithaca,</i>	1 Elect. Eng.
Gladden, Charles Stephen,	<i>Napoli,</i>	2 Mech. Eng.
Glasson, Edwin James,	<i>Ithaca,</i>	2 Agriculture
Glazier, Ralph Clark,	<i>West Gardner, Mass.,</i>	2 Science
Glenn, Edwin Atlee,	<i>Berwick, Pa.,</i>	1 Arts
Glenn, Jesse Young,	<i>Berwick, Pa.,</i>	4 Mech. Eng.
Gloth, Katharine Mary,	<i>Erie, Pa.,</i>	3 Arts
Golden, Welford J,	<i>Little Falls,</i>	1 Arts
Gomez, Julio,	<i>Santandar, Spain,</i>	1 Mech. Eng.
Gonzales, Rafael Fernando,	<i>Brooklyn,</i>	2 Law
Goodall, Stella Vivian, M.E., B.S.,	<i>Ithaca,</i>	1 Arts
Goodman, Edmund Louis,	<i>Rochester,</i>	2 Architecture
Goodman, James Francis,	<i>Buffalo,</i>	3 Mech. Eng.
Goodrich, Chauncey Scranton,	<i>Speedsville,</i>	3 Letters
Goodrich, Milo,	<i>Dryden,</i>	1 Arts
Goodwin, George Samuel,	<i>Ithaca,</i>	3 Mech. Eng.
Gordon, William,	<i>Halifax, N. S., Can.,</i>	3 E. Eng.
Gorman, John Truman,	<i>Owego,</i>	3 Philosophy
Gould, Arch Baxter,	<i>Port Jervis,</i>	3 Mech. Eng.
Gould, James Henry,	<i>Seneca Falls,</i>	2 Arts
Gould, Lawrence Ebenezer,	<i>Owasso, Mich.,</i>	1 Elect. Eng.

Gould, Norman Judd,	<i>Seneca Falls,</i>	3 Mech. Eng.
Graff, John Theodore,	<i>Washington, D. C.,</i>	2 Elect. Eng.
Graut, Harold Curtiss,	<i>Washington, D. C.,</i>	2 Science
Grantier, Leslie Verne,	<i>Elmira,</i>	1 Elect. Eng.
Graton, Louis Caryl,	<i>Ithaca,</i>	2 Science
Graves, Edward M.,	<i>Indianapolis, Ind.,</i>	2 Civil Eng.
Graves, Walter Joseph,	<i>Adrian, Mich.,</i>	2 Civil Eng.
Gray, Clyde D,	<i>Lakeville,</i>	2 Elect. Eng.
Gray, Edward Townsend,	<i>Oswego,</i>	1 Civil Eng.
Gray, Leon William,	<i>North Tonawanda,</i>	1 Arts
Green, Heatley,	<i>Syracuse,</i>	1 Civil Eng.
Green, Joseph Waring,	<i>Dayton, O.,</i>	2 Architecture
Gregg, Agnes Woodman,	<i>Morrisville, Pa.,</i>	1 Arts
Gregg, James Gregory,	<i>Trumansburg,</i>	2 Law
Gregory, LeRoy Porter,	<i>Knowlesville,</i>	1 Arts
Gressman, George William,	<i>Eden Center,</i>	4 Science
Grey, Eva Woodward,	<i>Brooklyn,</i>	4 Arts
Grey, Florence Baker,	<i>Brooklyn,</i>	2 Philosophy
Griffith, James Harvey, Jr.,	<i>East Rockaway,</i>	1 Arts
Grimshaw, Frederick George,	<i>Paterson, N. J.,</i>	1 Mech. Eng.
Griswold, Jonas Walter,	<i>Elmira,</i>	1 Civil Eng.
Grove, Robert Kellogg,	<i>Ithaca,</i>	4 Science
Guenther, George Henry,	<i>Blue Island, Ill.,</i>	2 Law
Guest, Lyman Jay,	<i>Burlington, Iowa,</i>	2 Law
Guillen, Salvador Antonio,	<i>Granada, Nicaragua,</i>	1 E. Eng.
Gunn, Nully Davidson,	<i>Plattsburg,</i>	4 Arts
Gunn, Spencer Clay,	<i>Plattsburg,</i>	1 Arts
Gurnee, Blandina Hasbrouck,	<i>Brooklyn,</i>	4 Arts
Haas, Sherwin Ward,	<i>Depauville,</i>	1 Civil Eng.
Hackett, Charles Frederick,	<i>Utica,</i>	4 Mech. Eng.
Hadley, George Clarence,	<i>North Adams, Mass.,</i>	1 M. Eng.
Hadley, William Lester,	<i>Edwardsville, Ill.,</i>	1 Arts
Hageman, Harry Andrew,	<i>Niagara Falls,</i>	3 Mech. Eng.
Hagerty, James Andrew,	<i>Castleton,</i>	1 Mech. Eng.
Haines, Edward Lawrence,	<i>Schenectady,</i>	Sp. Mech. Eng.
Haines, John Allen,	<i>Chicago, Ill.,</i>	3 Optional
Hale, Stancliff,	<i>South Glastonbury, Ct.,</i>	Sp. Agr.
Hall, Albert Carlton,	<i>Albany,</i>	2 Law
Hall, Frederick Francis,	<i>Syracuse,</i>	3 Civil Eng.
Halsey, Clayton Ivy,	<i>West Groton,</i>	2 Philosophy
Halsey, George Nye,	<i>Ithaca,</i>	1 Law
Halsey, William McDowell, Jr.,	<i>Ithaca,</i>	2 Med. Prep.
Hamilton, Brace Hayden,	<i>Buffalo,</i>	3 Mech. Eng.

Hammond, Ernest Benjamin,	<i>Saratoga Springs,</i>	1 Mech. Eng.
Hanmer, Lee Franklin,	<i>Bradford,</i>	2 Philosophy
Hannon, Arthur Mason,	<i>Cleveland, O.,</i>	1 Architecture
Hanson, Anthony Hans,	<i>Norwich,</i>	1 Arts
Harding, Mary Eloise,	<i>Middletown,</i>	2 Philosophy
Harlow, Leslie Cleveland,	<i>Lockport, N. S., Canada,</i>	1 Agr.
Harpending, Samuel Asbury,	<i>Dundee,</i>	1 Agriculture
Harrington, Glenn Bower,	<i>Butte, Mont.,</i>	2 Science
Harris, Alice Emily,	<i>Worcester, Mass.,</i>	Special Arts
Harris, Clarence Owens,	<i>Warsaw,</i>	4 Arts
Harris, Edward, Jr.,	<i>Rochester,</i>	1 Law
Harris, John Barnes,	<i>Sacketts Harbor,</i>	1 Arts
Harris, Lena,	<i>Ithaca,</i>	1 Arts
Harrison, Frederick Albert,	<i>Ithaca,</i>	2 Law
Harrison, George Emory,	<i>Saratoga,</i>	1 Law
Harrison, Gwynne Page,	<i>Millwood, Va.,</i>	1 Elect. Eng.
Hartley, Seward Wilson,	<i>Gouverneur,</i>	1 Elect. Eng.
Hartman, Leon Wilson,	<i>Ithaca,</i>	4 Science
Hartwell, Clarence Lake,	<i>Wilkes-Barre, Pa.,</i>	1 Civil Eng.
Haskell, Harvey Harrison,	<i>Pleasantville, Pa.,</i>	4 Science
Haskell, Reuben Locke,	<i>Brooklyn,</i>	2 Law
Hasselbring, Heinrich,	<i>Flint, Mich.,</i>	2 Agriculture
Hastings, George Tracy,	<i>Phoenix,</i>	4 Science
Hastings, Harold Edward,	<i>Bradford, Pa.,</i>	1 Mech. Eng.
Hastings, Robert Lee,	<i>Phoenix,</i>	2 Science
Haughwout, Adelle,	<i>Binghamton,</i>	Special Arts
Hausman, Julia,	<i>East Northfield, Mass.,</i>	Special Arts
Hausner, Frank Howard,	<i>Farmington,</i>	1 Law
Haviland, Edwin, Jr., B.S.,	<i>Plainfield, N. J.,</i>	Special Arts
Hawkins, Elbert Allen,	<i>Rockville Centre,</i>	2 Elect. Eng.
Hawkins, George Wallace,	<i>South Shaftsbury, Ct.,</i>	2 Law
Hawley, Davis, Jr.,	<i>Cleveland, Ohio,</i>	2 Science
Hay, Walter Wing,	<i>Ithaca,</i>	3 Arts
Hayes, Rud Bryant,	<i>Waverly,</i>	1 Elect. Eng.
Haynes, Royal Storrs,	<i>Brooklyn,</i>	3 Philosophy
Hayward, Ralph,	<i>Lockport,</i>	3 Mech. Eng.
Hazeltine, Robert Henry,	<i>Brooklyn,</i>	2 Mech. Eng.
Headden, John Cassidy,	<i>New York City,</i>	2 Law
Healy, Thomas David Joseph,	<i>Brooklyn,</i>	1 Law
Heath, Daisy Winnifred,	<i>New Brighton,</i>	1 Arts
Heisler, Frederick William,	<i>Painted Post,</i>	Special Mech. Eng.
Heller, John Walter,	<i>Newark, N. J.,</i>	1 Civil Eng.

Hellyer, Arthur Tirrell,	<i>Riverside, Ill.,</i>	1 Law
Heminway, Herbert Andrew,	<i>Bennington, Vt.,</i>	1 Law
Hemstreet, George Philomen,	<i>Wilkes-Barre, Pa.,</i>	Special Mech. Eng.
Hemstreet, Ralph Emerson,	<i>Brooklyn,</i>	1 Philosophy
Henderson, Frederick Bryant,	<i>Weedsport,</i>	3 Civil Eng.
Henry, Florence French,	<i>Cortland,</i>	1 Arts
Herring, Oscar Eugene,	<i>Cismont, Va.,</i>	1 Elect. Eng.
Hess, John Edward,	<i>Williamsport, Pa.,</i>	2 Mech. Eng.
Hetzel, Guy,	<i>New York City,</i>	2 Elect. Eng.
Hewins, Nellie Priscilla,	<i>Maspeth,</i>	4 Science
Hewitt, Charles Edward,	<i>North Tonawanda,</i>	1 Arts
Hibbard, Harry Lyman,	<i>Akron, Ohio,</i>	3 Mech. Eng.
Hickman, Emily,	<i>Buffalo,</i>	1 Arts
Hicks, Henry Wade,	<i>Oberlin, Ohio,</i>	4 Philosophy
Higley, Anson Holbrook,	<i>Batavia,</i>	3 Civil Eng.
Hildreth, Edward Raymond,	<i>Bridge Hampton,</i>	4 Arts
Hill, Acton Miller,	<i>New York City,</i>	1 Law
Hill, Ebenezer, Jr., A.B.,	<i>So. Norwalk, Ct.,</i>	3 Mech. Eng.
Hilleary, John Francis,	<i>Washington, D. C.,</i>	3 Mech. Eng.
Hills, John Stuart,	<i>Brooklyn,</i>	3 Mech. Eng.
Hilton, William Atwood,	<i>Waverly,</i>	3 Science
Hitchcock, Alfred Owen, Jr.,	<i>Fitchburg, Mass.,</i>	2 Elect. Eng.
Hitchcock, Harry Alton,	<i>Bath, Me.,</i>	1 Science
Hitchcock, Samuel Patch,	<i>Bath, Me.,</i>	1 Arts
Hobart, Charles Boone,	<i>Ft. Grant, Ariz.,</i>	4 Civil Eng.
Hoffman, William Levi,	<i>Chippewa Falls, Wis.,</i>	4 E. Eng.
Holbrook, Charlotte Kellogg,	<i>Ithaca,</i>	Special Arts
Holcomb, Ernest Selah,	<i>Ithaca,</i>	1 Elect. Eng.
Holden, Charles Bierce,	<i>Chicago, Ill.,</i>	1 Mech. Eng.
Holford, Fred DeWitt,	<i>Ithaca,</i>	Special Agriculture
Hollands, Edmund Howard,	<i>Watervliet</i>	3 Philosophy
Hollenbeck, Harry Bell,	<i>Avon,</i>	1 Civil Eng.
Holloway, Harold Euclid,	<i>New York City,</i>	1 Elect. Eng.
Holly, Harold Allen,	<i>Warsaw,</i>	2 Science
Holmes, Ella Amanda,	<i>Clifton Springs,</i>	4 Science
Holmes, Jessie Allen,	<i>Brooklyn,</i>	4 Science
Holmes, John Howard,	<i>St. Louis, Mo.,</i>	4 Arts
Hood, Louis Howell,	<i>Seneca Falls,</i>	2 Science
Hopkins, Grant Sherman, B.S., D.Sc.,	<i>Ithaca,</i>	3 Veterinary
Hopkins, Millicent Beecher,	<i>Stone Church,</i>	3 Science
Hopkins, Nellie Louise,	<i>Oxford,</i>	3 Arts
Horne, Joseph Leo, B.D.,	<i>Provo, Utah,</i>	2 Civil Eng.

Horton, Albert Howard,	<i>Silver Creek,</i>	4 Civil Eng.
Horton, Clinton Thompson,	<i>Silver Creek,</i>	4 Arts
Houck, George Ernst,	<i>Buffalo,</i>	2 Philosophy
Houston, Sarah Blanche,	<i>Beaver, Pa.,</i>	2 Arts
Howard, Marshall Pitkin,	<i>Hayt's Corners,</i>	2 Law
Howes, Harry Finch,	<i>Cortland,</i>	3 Architecture
Howes, Robert, B.S. in E.E.,	<i>Otter, Mont.,</i>	4 Elect. Eng.
Hoyt, Orson Cary,	<i>Buffalo,</i>	Jr. Law
Hubbell, James Floyd,	<i>Ithaca,</i>	2 Law
Huebener, Helen J,	<i>Lancaster, Pa.,</i>	3 Arts
Hufnagel, Frederick Bernhard,	<i>Mt. Vernon,</i>	2 Mech. Eng.
Hull, Sarah Helen,	<i>Liberty,</i>	4 Science
Hulse, Shirley Clarke,	<i>Circleville, Ohio,</i>	1 Mech. Eng.
Humiston, Robert Loomis,	<i>North Bay,</i>	4 Arts
Humphrey, Harry Phillips,	<i>Troy,</i>	2 Law
Hunn, Myrta Eleanor,	<i>Batavia,</i>	2 Arts
Hunt, Frances Helen,	<i>New Brighton,</i>	3 Science
Huntington, Frederic Dan,	<i>Newburgh,</i>	2 Elect. Eng.
Huntley, William Russel,	<i>Buffalo,</i>	1 Med. Prep.
Hurlbret, Hinman Barrett,	<i>Ogdensburg,</i>	1 Civil Eng.
Hutchinson, Walter Le Claire,	<i>New York City,</i>	2 Civil Eng.
Hyde, Howard Elmer,	<i>Ithaca,</i>	2 Civil Eng.
Ihlder, John William,	<i>Yonkers,</i>	2 Science
Illston, Harry Wright,	<i>Ithaca,</i>	2 Veterinary
Ingersoll, Monmouth Hazelett, A.B.,	<i>Ithaca,</i>	2 Law
Ingersoll, Vernon Seth,	<i>Addison,</i>	1 Civil Eng.
Inslee, Russell Gage,	<i>Newton, N. J.,</i>	2 Mech. Eng.
Inslee, Stephen Dod,	<i>Newton, N. J.,</i>	3 Science
Jackson, Frederic Ellis,	<i>Providence, R. I.,</i>	2 Architecture
Jackson, Hiram Gardner,	<i>Lockport,</i>	2 Elect. Eng.
James, Frederick Pitkin, A.B., L.L.B.,	<i>Lockport,</i>	Optional Law
Jeffers, Henry William,	<i>Kingsley, Pa.,</i>	4 Agricultural
Jenks, Edwin Brown,	<i>Elmira,</i>	4 Science
Jennings, Amy Jacqueline,	<i>Danby,</i>	3 Philosophy
Jensen, Gerhard H,	<i>Denmark, Wis.,</i>	3 Science
Jetter, Clifford Hawkins,	<i>Greenport,</i>	1 Law
Jewell, Edith Winnifred,	<i>Portland, Me.,</i>	2 Philosophy
Jewett, Guernsey Read,	<i>Moravia,</i>	2 Arts
Joannes, Francis Eugene Yeates,	<i>Green Bay, Wis.,</i>	2 Architecture
Johnson, Charles Bohlmann,	<i>Andes,</i>	2 Law
Johnson, Fred,	<i>Westfield,</i>	Special Agriculture
Johnson, Floyd Palmer,	<i>Walton,</i>	2 Arts

Johnson, Herman Humphrey,	<i>New York City,</i>	2 Law
Johnson, Henry Smith,	<i>Babylon,</i>	2 Elect. Eng.
Johnson, Joseph Fernando,	<i>Chicago, Ill.,</i>	Special Law
Johnson, Lawrence,	<i>Buffalo,</i>	2 Civil Eng.
Johnston, Edgar,	<i>Catskill,</i>	4 Civil Eng.
Johnston, George Keith,	<i>Sydney, New South Wales,</i>	3 E. E.
Johnston, Richard Harry,	<i>Brooklyn,</i>	1 Arts
Johnston, Sarah Helen Ewing,	<i>Ovid,</i>	3 Arts
Jonier, Mortimer Eugene, A.B.,	<i>Pike,</i>	1 Law
Jones, Fred Atwood, A.B.,	<i>Bonham, Texas,</i>	3 Elect. Eng.
Jones, Fred Lewis,	<i>Watertown,</i>	3 Architecture
Jones, Lydia Beulah Independence,	<i>Plattsburg,</i>	1 Arts
Jones, Melvin Elijah,	<i>Lapeer, Mich.,</i>	2 Elect. Eng.
Joseph, Edward N,	<i>Warwick,</i>	1 Elect. Eng.
Joyce, David, LL.B.,	<i>Canajoharie,</i>	Special Arts
Joyce, William Joseph,	<i>Columbus, Ohio,</i>	4 Arts
Juddell, Walter Wolf,	<i>Milwaukee, Wis.,</i>	2 Architecture
Juliand, Louis,	<i>Greene,</i>	1 Veterinary
Kairiyama, Tyiichi,	<i>Yokohama, Japan,</i>	2 Philosophy
Karst, Alexander,	<i>New York City,</i>	1 Elect. Eng.
Katz, Louise Waldman,	<i>Wilmington, N. C.,</i>	3 Science
Kavanagh, Charles Hiram,	<i>Elkhart, Ind.,</i>	2 Law
Keeler, Lynn Huntington,	<i>Moravia,</i>	1 Arts
Keese, Franklin Hawxhurst,	<i>Keeseville,</i>	4 Architecture
Kehl, Lester Henry,	<i>Boyertown, Pa.,</i>	2 Elect. Eng.
Kelley, Walter Furman,	<i>Brooklyn,</i>	3 Elect. Eng.
Kellogg, Julia Relief,	<i>Benson, Vt.,</i>	Special Arts
Kellogg, Mary Frances,	<i>Norwalk, Ohio,</i>	2 Arts
Kelly, Albert Boulware,	<i>Albany,</i>	3 Veterinary
Kelly, Eva Florence,	<i>Hoboken, N. J.,</i>	1 Science
Kelly, William Duncan Joseph,	<i>Jersey City, N. J.,</i>	1 Law
Kelsey, Charles Albert,	<i>Green Island,</i>	1 Mech. Eng.
Kemp, William James,	<i>Troy,</i>	1 Arts
Kendall, Howard Hutchinson,	<i>Cleveland, Ohio,</i>	2 Optional
Kennedy, Jerome Doubleday,	<i>Italy Hill,</i>	4 Elect. Eng.
Kent, Willard Morrell,	<i>Franklinville,</i>	2 Law
Kerlin, Ward Dix,	<i>Brooklyn,</i>	1 Mech. Eng.
Kern, Albert George,	<i>Knoxville, Tenn.,</i>	2 Veterinary
Kerr, Lydia Ethelyn,	<i>Titusville, Pa.,</i>	2 Philosophy
Kersburg, Leo James,	<i>Medina,</i>	4 Philosophy
Ketchum, Dickerson Albert, Jr.,	<i>Middletown,</i>	2 Civil Eng.

Keyes, Marion Alvah, Jr.,	Mayville,	1 Law
Kiger, Elmer Edgar,	Course Landing, N. J.,	2 E. Eng.
Kilbourne, Byron Albert,	Liberty,	1 Law
Kimber, Anna E,	Fulton,	2 Architecture
Kimble, Albert Henry,	North Collins,	3 Optional
King, Asa Carlton,	Trumansburg,	3 Agriculture
King, Edmund Cathcart,	Toledo, Ohio,	1 Civil Eng.
King, Herbert Paul,	Trumansburg,	1 Agriculture
Kingsley, Charles Francis,	New Rochelle,	2 Mech. Eng.
Kingsley, Martin Watson,	Ripley,	1 Science
Kingston, John Francis,	Skaneateles,	2 Law
Kinney, Claude Lorraine,	Newton, Kansas,	3 Philosophy
Kinney, Ely Merrick,	Athens, Pa.,	3 Mech. Eng.
Kinsella, Michael Joseph,	Buffalo,	1 Law
Kinsey, Eugene Abbott,	La Salle,	1 Elect. Eng.
Kinsley, William Wirt, Jr.,	Falls Church, Va.,	1 Elect. Eng.
Kirk, Albert Edward,	Pittsburg, Pa.,	1 Mech. Eng.
Kirk, Allen Taylor,	Atlanta, Ill.,	1 Mech. Eng.
Kirk, William Thomas,	Atlanta, Ill.,	2 Philosophy
Kitchen, John Frederic,	Warren, Pa.,	Sp. Mech. Eng.
Klein, Richard Marcus,	Gloversville,	4 Elect. Eng.
Klinkhart, Amos John,	Canajoharie,	1 Architecture
Klock, Claude William,	Canajoharie,	2 Arts
Klock, Frank Barnes,	Syracuse,	3 Mech. Eng.
Klotz, Charles Arthur,	New York City,	2 Law
Knapp, Clarence Hiram,	Saratoga Springs,	1 Philosophy
Knapp, Walter Ray,	Binghamton,	3 Science
Knipe, Norman Leslie,	Norristown, Pa.,	2 Philosophy
Knott, Emma Anna,	Canajoharie,	3 Philosophy
Knowlton, Daniel Chauncey,	Cazenovia,	4 Arts
Knox, Sara Cecelia,	Ithaca,	3 Arts
Koblenzer, Hugo,	Chicago, Ill.,	1 Mech. Eng.
Koby, Christopher Edward,	Cohocton,	2 Law
Kohrs, William,	Deer Lodge, Mont.,	1 Elect. Eng.
Kraatz, Charles Henry,	Akron,	1 Agricultural
Krauss, Andrew George,	Attica,	2 Law
Krebs, August Sonnin,	Wilmington, Del.,	2 Mech. Eng.
Kretz, Charles Henry,	Baton Rouge, La.,	2 Mech. Eng.
Krome, William J,	Edwardsville, Ill.,	2 Civil Eng.
Kühn, John Joseph,	Brooklyn,	2 Law
Kunze, Emma Gertrude,	Philadelphia, Pa.,	1 Arts
Lake, Chauncey Frank,	Titusville, Pa.,	4 Optional

La Mont, Clarence Booth,	<i>Ithaca,</i>	1 Mech. Eng.
Lane, Albert Alanson,	<i>Westport, Ct.,</i>	1 Mech. Eng.
Laue, Mary Corwin,	<i>Newfane,</i>	4 Arts
Lang, George Stuart,	<i>Corning,</i>	1 Elect. Eng.
Langdon, Jervis, B. L.,	<i>Elmira,</i>	Optional Law
Lanpher, Erwin Eugene,	<i>Lowville,</i>	2 Civil Eng.
Larco, Alberto Fortunato,	<i>Lima, Peru,</i>	3 Mech. Eng.
Larkin, George Andrew,	<i>Olean,</i>	2 Arts
Latting, Helen Marian,	<i>Shortsville,</i>	3 Science
Lauer, William George,	<i>Brooklyn,</i>	2 Philosophy
Laughlin, Gail, A. B.,	<i>Portland, Me.,</i>	2 Law
Lauren, Edness Chester,	<i>Auburn,</i>	1 Arts
Lawler, Clement Alexander, A. B.,	<i>Prairie du Chien, Wis.,</i>	2 Law
Lawrence, Morton Robert,	<i>Skaneateles,</i>	1 Civil Eng.
Lawton, May Agnes,	<i>Mohawk,</i>	4 Philosophy
Leach, Estelle Adelaide,	<i>Ilion,</i>	3 Optional
Lee, Herbert Blanchard,	<i>Buffalo,</i>	3 Arts
Lehrman, Henry,	<i>Montclair, N. J.,</i>	3 Veterinary
Leiser, Roy,	<i>Chicago, Ill.,</i>	2 Elect. Eng.
Lennon, Grace Shepard,	<i>Brockport,</i>	1 Arts
Leonard, William Mark,	<i>Ithaca,</i>	Special Agriculture
Leshner, Charles Edward, A. B.,	<i>Union City, Ind.,</i>	Special Arts
Lester, Ordella Amanda,	<i>Brooklyn,</i>	4 Science
Levi, David Rich,	<i>Buffalo,</i>	1 Arts
Lewis, Edwin James,	<i>Auburn,</i>	2 Mech. Eng.
Lewis, Irving Chauncey,	<i>Ulysses, Pa.,</i>	3 Mech. Eng.
Lewis, Rush Francis,	<i>Little Falls,</i>	2 Law
Leyda, Charles Edgar,	<i>Monongahela, Pa.,</i>	4 Elect. Eng.
Lindsley, Frederic Cleland,	<i>Washington, D. C.,</i>	1 Agriculture
Linson, Harold Myron,	<i>Kingston,</i>	1 Mech. Eng.
Little, Hiram Murray,	<i>Cleveland, Ohio,</i>	2 Science
Little, Tully Bascom,	<i>Cleveland, Ohio,</i>	1 Arts
Littleton, Fannie Tallot,	<i>Lynchburg, Va.,</i>	Special Arts
Livermore, Paul Smith, A. B.,	<i>Ithaca,</i>	2 Law
Livingston, Robert R,	<i>Kingston,</i>	1 Mech. Eng.
Lloyd, John William, B. S.,	<i>Glen Ellyn, Ill.,</i>	2 Agriculture
Loetscher, Elim Christian,	<i>Dubuque, Iowa,</i>	3 Elect. Eng.
Lonergan, Philip Edward,	<i>Elmira,</i>	2 Arts
Lord, Charles Clifford,	<i>Mt. Vernon,</i>	2 Mech. Eng.
Lorenzen, Ernst Gustav,	<i>New Rochelle,</i>	4 Philosophy
Losie, Thomas McIntosh, Jr.,	<i>Elmira,</i>	2 Law
Lovejoy, Harry Otis,	<i>Buffalo,</i>	1 Mech. Eng.

Lovell, John Gibbs,	<i>Chicago, Ill.,</i>	2 Mech. Eng.
Loving, Arthur Sylvester, B.S.,	<i>Jacksonville, Ill.,</i>	2 Law
Lowenthal, Sidney S,	<i>Rochester,</i>	1 Arts
Lowentritt, Arthur Myer,	<i>Oil City, Pa.,</i>	2 Optional
Lowery, Stuart Johnson,	<i>Utica,</i>	1 Philosophy
Ludlam, Isaac Cock,	<i>Oyster Bay,</i>	2 Law
Ludwig, Robert Francis,	<i>Chicopee, Mass.,</i>	2 Arts
Lueder, Archie Byron,	<i>Wilkes-Barre, Pa.,</i>	3 Civil Eng.
Lyon, Henry Hopkins,	<i>Buffalo,</i>	1 Elect. Eng.
Lyon, Layton Stearns,	<i>Williamsport, Pa.,</i>	1 Civil Eng.
Mabey, Arthur Roe,	<i>Enfield Falls,</i>	3 Mech. Eng.
Macauley, Mary Elizabeth,	<i>Rochester,</i>	4 Arts
MacBride, Archie Edwards,	<i>Deckertown, N. J.,</i>	1 Arts
McCann, Helen Regenetta,	<i>Ilion,</i>	2 Arts
McCarn, Volney Nelson,	<i>Andover,</i>	2 Elect. Eng.
McClary, Samuel, 3rd,	<i>Wilmington, Del.,</i>	2 Science
McClure, Mary Frances,	<i>Philadelphia, Pa.,</i>	1 Arts
McCollom, Marie Lisle,	<i>Troy, Pa.,</i>	3 Arts
McCrea, William Miller,	<i>Salt Lake City, Utah,</i>	1 Law
McCreary, Edward Ansel,	<i>Cohoes,</i>	2 Arts
McCulloh, Thomas Grubb, Jr.,	<i>Chicago, Ill.,</i>	2 Optional
McDonald, Hugh Fackler, B.M.E.,	<i>McKinney, Texas,</i>	2 Mech. Eng.
Macdonald, Henry Gordon,	<i>Troy,</i>	2 Mech. Eng.
McDonald, Robert Stevenson,	<i>London, Ont., Canada,</i>	1 Phil.
McDonald, Stewart,	<i>Chicago, Ill.,</i>	3 Elect. Eng.
McElroy, Andrew J,	<i>Ithaca,</i>	3 Science
McElroy, Thomas Clifford,	<i>Ottumwa, Iowa,</i>	3 Architecture
MacGillivray, Alexander Dyer,	<i>Ithaca,</i>	3 Philosophy
McGonegal, Grace Ethelyn,	<i>Rochester,</i>	3 Arts
McGovern, John Thomas,	<i>Albany,</i>	1 Law
McGowin, Richard Smyth,	<i>Philadelphia, Pa.,</i>	4 Elect. Eng.
McGrath, Jean Cecile,	<i>Philadelphia, Pa.,</i>	1 Arts
McGraw, Frank Überhorst,	<i>Ithaca,</i>	1 Law
McGuire, James Henry,	<i>New Berlin,</i>	4 Science
McHarg, Leslie,	<i>Binghamton,</i>	3 Civil Eng.
MacHenry, Charles Ainsworth,	<i>Cortland,</i>	2 Law
Machold, Carl Bernhard,	<i>Amsterdam,</i>	2 Architecture
McIntosh, Fred Jacob,	<i>Ithaca,</i>	Special Agr.
Macintosh, Vivian Gordon,	<i>New York City,</i>	1 Law
Mack, Harry Eli,	<i>Marathon,</i>	1 Civil Eng.
Mack, Julia Whiton,	<i>Ithaca,</i>	1 Arts
McKay, Maurice Parker,	<i>Ithaca,</i>	1 Elect. Eng.

McKeever, William,	<i>Philadelphia, Pa.,</i>	4 Civil Eng.
McKenna, Edmund Burke,	<i>Buffalo,</i>	Special Mech. Eng.
McKenzie, George Park,	<i>Rochester,</i>	1 Law
McKenzie, Grace Elizabeth,	<i>Council Bluffs, Iowa,</i>	4 Philosophy
McKibbin, Frederick William James, B.A.Sc.,	<i>Peterboro, Ont., Can.,</i>	4 Elect. Eng.
McKinley, Francis M,	<i>Clayton,</i>	Jr. Law
McLallen, Henry Crane,	<i>Trumansburg,</i>	4 Agriculture
McLaughlin, Daniel Maujer,	<i>Brooklyn,</i>	1 Law
Macleod, Emma Blanche,	<i>Hollister, Cal.,</i>	Special Arts
MacLeod, Norman Donald,	<i>Caledonia,</i>	1 Agriculture
McLindon, John William,	<i>Schuylerville,</i>	1 Law
McMahon, John Joseph,	<i>Ellicottville,</i>	3 Letters
McMenamy, Helen Eaton,	<i>Catskill,</i>	2 Science
McMillan, Ross,	<i>Buffalo,</i>	1 Arts
McMullin, Frank Van,	<i>Ithaca,</i>	Special Mech. Eng.
McNamara, William Francis,	<i>Bath,</i>	2 Law
McNary, Edna Martin,	<i>Brooklyn,</i>	2 Med. Prep.
McNutt, Elijah Bailey,	<i>Minerva, Ky.,</i>	2 Arts
Macomber, George Stanley,	<i>Perry,</i>	2 Elect. Eng.
Macon, William Watts,	<i>Rochester,</i>	4 Elect. Eng.
Magenis, James Patrick,	<i>North Adams, Mass.,</i>	Special Law
Maginnis, Benjamin,	<i>Chicago, Ill.,</i>	1 Civil Eng.
Magoffin, Edward Thompson,	<i>North Tonawanda,</i>	2 Science
Maguire, Jeremiah De Smet, A.B.,	<i>St. Louis, Mo.,</i>	3 Elect. Eng.
Major, Charles Curtis,	<i>Ithaca,</i>	4 Elect. Eng.
Mandler, Charles Jacob, B.L.,	<i>Toledo, Ohio,</i>	2 Law
Manly, Charles Matthews, M.M.P.,	<i>Greenville, S. C.,</i>	4 Elect. Eng.
Mann, Katherine Elizabeth,	<i>Owatonna, Minn.,</i>	1 Arts
Mann, Paul Blakeslee,	<i>Potsdam,</i>	1 Arts
Markson, Harry M,	<i>Elmira,</i>	4 Philosophy
Markwick, Mary Eva,	<i>Gouverneur,</i>	4 Arts
Marland, William Henry,	<i>Binghamton,</i>	1 Elect. Eng.
Martin, Emily Dart,	<i>Worcester,</i>	3 Arts
Martin, George Curtis,	<i>Berkshire, Mass.,</i>	4 Science
Martin, James Otis,	<i>Bridgeport, Ct.,</i>	1 Agriculture
Martin, Maude Winifred,	<i>Cooperstown,</i>	2 Philosophy
Martinez, Claudio J.,	<i>Vera Cruz, Mexico,</i>	1 Mech. Eng.
Marvel, Thomas Stahl,	<i>Newburg,</i>	Special Mech. Eng.
Marx, Bertha,	<i>Toledo, Ohio,</i>	4 Science
Marx, Erwin,	<i>Toledo, Ohio,</i>	2 Civil Eng.
Mason, Herbert Delavan,	<i>Glens Falls,</i>	1 Law

Mason, Mabel Hortense, M.E.L.,	<i>Littleton, Mass.,</i>	Special Arts
Mason, William Horatio,	<i>Lewisburg, W. Va.,</i>	3 Elect. Eng.
Massey, Myrtle Lathrop,	<i>Buffalo,</i>	4 Arts
Massey, Walter Griffith,	<i>Watertown,</i>	1 Mech. Eng.
Massie, James Hughes,	<i>Colborne, Ont., Canada,</i>	1 M. Eng.
Mastin, Francis Wells,	<i>Piermont,</i>	1 Elect. Eng.
Mather, William,	<i>Utica,</i>	1 Law
Matthews, Bayard,	<i>East Orange, N. J.,</i>	Special Arts
Mattice, Paul Brown,	<i>Middleburg,</i>	Special Law
Maxwell, Max Carson,	<i>Washington, D. C.,</i>	2 Mech. Eng.
May, Alice Ruth,	<i>Rochester,</i>	1 Architecture
Mayer, Charles Holt,	<i>Sturgeon, Mo.,</i>	2 Law
Mayham, Walter John,	<i>Buffalo,</i>	4 Optional
Mead, Herman Ralph,	<i>Jamestown,</i>	3 Philosophy
Mead, Mabel,	<i>Greeley, Colo.,</i>	4 Science
Mead, Mildred,	<i>Greeley, Colo.,</i>	Special Arts
Medden, Frederick John,	<i>Seneca Falls,</i>	3 Science
Megraw, Herbert Ashton,	<i>Baltimore, Md.,</i>	4 Science
Mellor, Clara L,	<i>Yonkers,</i>	4 Philosophy
Merrell, George Farrington,	<i>Chicago, Ill.,</i>	1 Arts
Merrihew, Henry Merton,	<i>Plattsburg,</i>	2 Law
Merrill, Ogden,	<i>Brooklyn,</i>	3 Civil Eng.
Merritt, Norman Allan,	<i>Lockport,</i>	2 Law
Mersereau, George Jefferson,	<i>Owego,</i>	Jr. Law
Meyer, Percy Baidon,	<i>New York City,</i>	1 Mech. Eng.
Meysenburg, Frederick William,	<i>Chicago, Ill.,</i>	1 Agriculture
Meysenburg, Robert Carr,	<i>Chicago, Ill.,</i>	2 Mech. Eng.
Middleworth, Henry Van,	<i>Sandy Hill,</i>	1 Law
Mider, Carrol Arthur,	<i>Lowville,</i>	1 Arts
Midgley, Fred William,	<i>Brooklyn,</i>	4 Mech. Eng.
Mildon, Reginald Brind,	<i>Marlboro, Mass.,</i>	3 Civil Eng.
Millar, Roger Alexander,	<i>Lockport,</i>	2 Elect. Eng.
Millard, Henry Floyd,	<i>Skaneateles,</i>	2 Law
Miller, Ernest Allan,	<i>Ithaca,</i>	3 Science
Miller, John Strother,	<i>Washington, D. C.,</i>	1 Agriculture
Miller, John Vincent, A.B.,	<i>Akron, Ohio,</i>	3 Mech. Eng.
Miller, Milton Cheney,	<i>Chicago, Ill.,</i>	Jr. Law
Miller, Myrtle Helen,	<i>Trumansburg,</i>	4 Science
Miller, Omar Edom,	<i>Des Moines, Iowa,</i>	Special Law
Miller, Rice,	<i>Hillsboro, Ill.,</i>	Jr. Law
Miller, William Harrison,	<i>Pottsville, Pa.,</i>	1 Arts
Miller, William Raymond,	<i>Doylestown, Ohio,</i>	3 Mech. Eng.

Millington, George Joseph,	<i>Buffalo,</i>	1 Elect. Eng.
Mills, Charles Edward,	<i>Everett, Wash.,</i>	2 Law
Mills, Frederic Alden,	<i>Brooklyn,</i>	1 Arts
Miltimore, Dean,	<i>Catskill,</i>	3 Science
Miner, James Henry,	<i>Warrenville, Ohio,</i>	2 Civil Eng.
Miner, Max Howard,	<i>Charlemont, Mass.,</i>	3 Mech. Eng.
Mintz, Aaron Girard,	<i>Ithaca,</i>	1 Law
Mintz, Harry Benjamin,	<i>Ithaca,</i>	2 Law
Mirick, Alfred Stowe,	<i>Lyons,</i>	2 Civil Eng.
Mitchell, Charles Coffin,	<i>Millbrook,</i>	3 Elect. Eng.
Mitchell, William John,	<i>Ithaca,</i>	2 Veterinary
Mix, Charles Melvin,	<i>Friendship,</i>	4 Arts
Mock, Gertrude Estelle,	<i>Rochester,</i>	1 Arts
Mock, Harry Albert,	<i>Rochester,</i>	2 Law
Moffatt, Walter,	<i>Washingtonville,</i>	1 Arts
Mohan, William Thomas,	<i>Allegheny, Pa.,</i>	4 Elect. Eng.
Mole, George Alfred,	<i>Adams, Mass.,</i>	2 Law
Mollard, Charles Ellis,	<i>Skaneateles,</i>	1 Civil Eng.
Molowney, Robert Everett,	<i>Somers, Ct.,</i>	1 Arts
Moody, Nelson Kingsland,	<i>Titusville, Pa.,</i>	3 Mech. Eng.
Moody, Virginius Daniel,	<i>Norfolk, Va.,</i>	1 Elect. Eng.
Moore, Clarence Stanton,	<i>Olean,</i>	4 Civil Eng.
Moore, Edward Lockhart, B.S in Agr.,	<i>Halifax, N. S., Can.,</i>	3 Vet.
Moore, Egbert Jessup,	<i>Patchogue,</i>	1 Civil Eng.
Moore, Ralph Switzer,	<i>Portsmouth, Ohio,</i>	3 Mech. Eng.
Moran, Edward Jay,	<i>Fredonia,</i>	1 Arts
Morehouse, Frank Delbert,	<i>Glens Falls,</i>	1 Law
Morey, Stephen Roy,	<i>Syracuse,</i>	1 Arts
Morgan, Beulah Genevieve,	<i>Cuba,</i>	1 Arts
Morgan, Charles Grier,	<i>Kingston, Pa.,</i>	4 Mech. Eng.
Morgan, John Calvin, Jr.,	<i>Naples,</i>	2 Law
Morgan, Llwellyn,	<i>Brooklyn,</i>	2 Mech. Eng.
Morgan, William Osgood,	<i>Pittsfield, Mass.,</i>	2 Science
Morris, Oscar Matison, B.S.,	<i>Stillwater, Oklahoma,</i>	4 Agr.
Morrissey, Thomas Wenceslaus,	<i>Caledonia,</i>	2 Arts
Morrison, Archibald Bostwick, Jr.,	<i>Geneva,</i>	1 Civil Eng.
Morrison, Herbert Hunt,	<i>New York City,</i>	1 Mech. Eng.
Morrison, William Harper, Jr.,	<i>Indianapolis, Ind.,</i>	1 Arts
Morton, Roscoe Blake,	<i>Chicago, Ill.,</i>	3 Science
Mosher, Edgar Seeber,	<i>Auburn,</i>	2 Arts
Mott, Abram Cox, Jr.,	<i>Philadelphia, Pa.,</i>	1 Mech. Eng.
Mowery, John Norris, Jr., A.B.,	<i>Marietta, Pa.,</i>	3 Mech. Eng.

Moyer, Fredellia Hughes,	<i>Springfield,</i>	2 Elect. Eng.
Moyer, John Clarence,	<i>Norristown, Pa.,</i>	2 Mech. Eng.
Mulford, Walter,	<i>Edgewood, Pa.,</i>	3 Agriculture
Mundy, Floyd Woodruff,	<i>Chicago, Ill.,</i>	4 Arts
Murphy, Edward Joseph,	<i>Binghamton,</i>	4 Arts
Murray, Chester,	<i>Tottenville,</i>	3 Philosophy
Murtaugh, John Francis, A.B.,	<i>Elmira,</i>	2 Law
Myers, Andrew Morell,	<i>Auburn,</i>	2 Civil Eng.
Nalle, Ewell,	<i>Austin, Texas,</i>	1 Mech. Eng.
Namack, William Henry,	<i>Phelps,</i>	1 Elect. Eng.
Nathan, Marvin,	<i>Buffalo,</i>	2 Arts
Navarro, Luis Soto,	<i>Havana, Cuba,</i>	Sp. Agriculture
Navarro, Rainon Soto,	<i>Havana, Cuba,</i>	Sp. Agriculture
Neely, John Crosby, A.B.,	<i>Chicago, Ill.,</i>	4 Mech. Eng.
Neilson, Frederick Charlesworth,	<i>Indianapolis, Ind.,</i>	4 Mech. Eng.
Nellegar, Jay Cromwell,	<i>Chicago, Ill.,</i>	2 Mech. Eng.
Nellis, Cary David,	<i>Ft. Plain,</i>	1 Architecture
Nellis, Frederick Marion,	<i>New York City,</i>	Sp. Mech. Eng.
Nevin, William Harbaugh,	<i>Philadelphia, Pa.,</i>	1 Mech. Eng.
Newbury, Edwin Henry,	<i>Brooklyn,</i>	1 Mech. Eng.
Newbury, Frank Davies,	<i>Brooklyn,</i>	1 Mech. Eng.
Newell, Harry Emory, Ph.B.,	<i>Davenport,</i>	2 Law
Newton, Charles Edgar, Jr.,	<i>Brooklyn,</i>	1 Mech. Eng.
Newton, James Bertram,	<i>Holyoke, Mass.,</i>	2 Civil Eng.
Newton, Thomas Lee,	<i>Salamanca,</i>	1 Law
Newton, William Baxton,	<i>Portland, Me.,</i>	2 Mech. Eng.
Nichols, Susie Percival,	<i>Phippsburg, Me.,</i>	4 Science
Nightingale, Eleanor Maria,	<i>Brooklyn,</i>	4 Philosophy
Niles, Walter Lindsay,	<i>Lebanon,</i>	2 Civil Eng.
Nolan, James Bennett,	<i>Reading, Pa.,</i>	2 Optional
Northrop, Luella,	<i>Forest Home,</i>	1 Arts
Norton, Clifton Ranney,	<i>Saulte Ste. Marie, Mich.,</i>	2 M. E.
Nuffort, Walter,	<i>Newark, N. J.,</i>	2 Agriculture
Nye, Sylvanus Barlow,	<i>Cayutaville,</i>	2 Law
O'Brien, Daniel Howard,	<i>High Market,</i>	2 Science
Oddie, Clarence Meigs,	<i>East Orange, N. J.,</i>	1 Optional
Odell, Mark M, B.L.,	<i>Baldwinsville,</i>	2 Law
Offinger, Martin Henry,	<i>Mt. Vernon,</i>	2 Elect. Eng.
Ogden, Mabel Estelle,	<i>Gloversville,</i>	3 Science
Ogden, Robert Morris,	<i>Binghamton,</i>	1 Science
Ogden, Warren Greene,	<i>Washington, D. C.,</i>	1 Mech. Eng.
Ogle, John Howard,	<i>Belleville, Ill.,</i>	3 Elect. Eng.

O'Keefe, John Eugene,	<i>Carthage, Mo.,</i>	4 Elect. Eng.
Oldham, George Ashton,	<i>Cleveland, Ohio,</i>	1 Mech. Eng.
O'Leary, John William,	<i>Chicago, Ill.,</i>	3 Elect. Eng.
Olin, Herbert Scott,	<i>Watertown,</i>	2 Architecture
Oliphant, James Norris,	<i>Brooklyn,</i>	1 Elect. Eng.
O'Malley, James,	<i>Buffalo,</i>	1 Arts
O'Neill, Cecilia Beatrice,	<i>Oil City, Pa.,</i>	4 Philosophy
Orleman, Anna Violette,	<i>Peekskill,</i>	1 Arts
Orleman, Walter Florenzie,	<i>Peekskill,</i>	4 Elect. Eng.
Osame, Sanji,	<i>Okayama, Japan,</i>	1 Mech. Eng.
Ostheimer, Mortimer,	<i>Erie, Pa.,</i>	3 Science
Otis, James Cornish,	<i>St. Paul, Minn.,</i>	1 Arts
Otterson, Nelson Easton,	<i>Jamesburg, N. J.,</i>	3 Elect. Eng.
Overton, Paul Vincent,	<i>San Antonio, Texas,</i>	1 Law
Owen, John Greenleaf,	<i>Eau Claire, Wis.,</i>	4 Science
Pacheco, Joviano Augusto d'Amaval,	<i>S. Carlos, Brazil,</i>	1 Agriculture
Page, Charles Clinton,	<i>Trumansburg,</i>	2 Law
Page, Sophy Ellen,	<i>East Bethany,</i>	1 Med. Prep.
Paine, David,	<i>Troy,</i>	1 Arts
Palen, Lewis Stanton,	<i>Monticello,</i>	2 Arts
Palmer, George B,	<i>Little Meadows, Pa.,</i>	1 Law
Palmer, Horace Wilbur,	<i>Coxsackie,</i>	1 Philosophy
Parker, Benjamin Franklin,	<i>Laurel, Del.,</i>	2 Mech. Eng.
Parker, Hiram Yorke,	<i>Ithaca,</i>	1 Civil Eng.
Parker, John Mason,	<i>West Troy,</i>	1 Law
Parkinson, Francis Powers,	<i>Bay Ridge,</i>	1 Civil Eng.
Parry, Elizabeth,	<i>New York Mills,</i>	1 Arts
Parsons, Floyd Yard,	<i>Paterson, N. J.,</i>	4 Architecture
Partridge, Alonzo Hammond,	<i>Albany,</i>	1 Mech. Eng.
Pate, Carlton Overton,	<i>Brooklyn,</i>	2 Mech. Eng.
Pate, Walter Lacey,	<i>Brooklyn,</i>	Jr. Law
Patterson, F Gordon,	<i>Geneva,</i>	2 Mech. Eng.
Patterson, John Rea,	<i>Pittsburg, Pa.,</i>	1 Arts
Patterson, Laurence,	<i>Brooklyn,</i>	2 Arts
Patterson, William Wallace,	<i>Pittsburg, Pa.,</i>	2 Science
Pauling, Walter Albert,	<i>New York City,</i>	1 Law
Pearson, Eunice Rachel,	<i>Cosad,</i>	1 Arts
Peirson, Mabel Burnham,	<i>Brockport,</i>	1 Arts
Pellet, William Waldo,	<i>Watkins,</i>	1 Arts
Pendergrass, Robert Allen,	<i>Saratoga Springs,</i>	2 Civil Eng.
Pendleton, Frank,	<i>Philadelphia, Pa.,</i>	1 Mech. Eng.
Penney, Albert Silas,	<i>Adams,</i>	1 Mech. Eng.

Perkins, Chester Ransom,	<i>Hardy's,</i>	1 Veterinary
Perkins, Fred Clark,	<i>West Townsend, Mass.,</i>	1 M. Eng.
Perrin, Ruth Wilder,	<i>Fredonia,</i>	2 Philosophy
Perrine, Leroy Levi,	<i>Wallkill,</i>	2 Philosophy
Perry, Clarence Arthur,	<i>Syracuse,</i>	3 Science
Perry, John Quincy,	<i>Belfast,</i>	4 Philosophy
Perry, Mulford,	<i>Whitney's Point,</i>	Sp. Agriculture
Personius, Ely Watson,	<i>Elmira,</i>	2 Law
Persons, Richard Sanford,	<i>East Aurora,</i>	2 Science
Peterman, Albert Edward,	<i>Buffalo,</i>	1 Arts
Pettengill, Ben Miller,	<i>Holley,</i>	2 Elect. Eng.
Pettis, Clifford Robert,	<i>Delancey,</i>	1 Civil Eng.
Pettit, Irving Coles,	<i>Baldwins,</i>	1 Arts
Pettit, James Harvey,	<i>Shortsville,</i>	2 Philosophy
Pharr, Eugene Albartus, A.B.,	<i>Berwick, La.,</i>	1 Mech. Eng.
Phelps, Charles Austin,	<i>Sackett's Harbor,</i>	1 Law
Phelps, Walter Edwin,	<i>Brooklyn,</i>	1 Law
Phillips, Mary Antoinette,	<i>Fulton,</i>	1 Arts
Pinch, Minnie Adelaide,	<i>Hornellsville,</i>	4 Arts
Pistor, George Emil John,	<i>Newark, N. J.,</i>	1 Civil Eng.
Platt, Francis Wheeler,	<i>Poughkeepsie,</i>	2 Philosophy
Platt, Isaac,	<i>Poughkeepsie,</i>	2 Law
Plumb, Alexander Webb,	<i>Red Creek,</i>	Special Arts
Plumb, Harold Blair,	<i>Utica,</i>	1 Elect. Eng.
Plummer, Lorenzo Taylor,	<i>Lisbon Falls, Me.,</i>	2 Law
Porter, Frank Scouller,	<i>Buffalo,</i>	1 Law
Potter, Charles Beecher,	<i>Ithaca,</i>	2 Veterinary
Potter, Raymond Greene,	<i>Philadelphia, Pa.,</i>	2 Civil Eng.
Potts, Clyde,	<i>Des Moines, Iowa,</i>	1 Civil Eng.
Powell, Charles Underhill,	<i>Glen Head,</i>	4 Civil Eng.
Powell, Mabel Alger,	<i>Ghent,</i>	1 Agriculture
Powlesland, Ina Belle,	<i>Collamer,</i>	4 Philosophy
Pratt, Edgar Nichols,	<i>Attica,</i>	3 Architecture
Pratt, Marion,	<i>Syracuse,</i>	1 Arts
Preston, George Rufus,	<i>Dansville,</i>	2 Law
Preston, Helen Gertrude,	<i>Philadelphia, Pa.,</i>	4 Philosophy
Price, Albert Stanley,	<i>Jamestown,</i>	1 Arts
Price, William Raleigh,	<i>Buffalo,</i>	4 Arts
Prince, John Walter,	<i>Vineland, N. J.,</i>	3 Elect. Eng.
Proctor, Ralph Fenno,	<i>Newtonville, Mass.,</i>	1 Civil Eng.
Provost, Framy Victor Marbach,	<i>Brooklyn,</i>	1 Law
Puff, Louise,	<i>Ithaca,</i>	1 Arts

Pugsley, Anna Martin,	<i>Oakfield,</i>	4 Arts
Puig, Louise Margarita,	<i>Brooklyn,</i>	1 Arts
Purcell, Francis Keon,	<i>Watertown,</i>	1 Arts
Purcell, Stewart,	<i>Baltimore, Md.,</i>	1 Civil Eng.
Putnam, Russell Benjamin, B.S.,	<i>Abbeville, La.,</i>	1 Mech. Eng.
Pyle, Henry Smith,	<i>Wilmington, Del.,</i>	2 Science
Quackenbush, Ernest Linwood,	<i>Warwick,</i>	2 Arts
Quigley, James Patrick,	<i>Killbuck,</i>	2 Arts
Raines, George Richmond,	<i>Canandaigua,</i>	1 Law
Rains, Albert,	<i>Hornbeck, Tenn.,</i>	3 Philosophy
Rakestraw, Arthur Garwood,	<i>Willowdale, Pa.,</i>	3 Elect. Eng.
Ramsburg, Charles Joseph,	<i>Washington, D. C.,</i>	2 Science
Rand, Jasper Raymond, Jr.,	<i>Montclair, N. J.,</i>	3 Mech. Eng.
Randall, Frederic Mason,	<i>Ripley,</i>	2 Science
Rands, Harold Alva,	<i>Oregon City, Oregon,</i>	2 Science
Ransom, Willard,	<i>Ottawa, Kansas,</i>	1 Elect. Eng.
Rapp, Rudolph Albert,	<i>Cincinnati, Ohio,</i>	2 Elect. Eng.
Rathbone, Richmond Laurin,	<i>Oakfield,</i>	4 Elect. Eng.
Rauber, Frederick Stephen,	<i>Rochester,</i>	1 Law
Rawlius, Earle Alonzo,	<i>Titusville, Pa.,</i>	1 Law
Ray, Frances Katherine,	<i>Albany,</i>	4 Philosophy
Ray, Fred Donald,	<i>Chicago, Ill.,</i>	1 Civil Eng.
Ray, Jessie Treat,	<i>Auburn,</i>	2 Philosophy
Raymond, Arthur Beavers,	<i>Brooklyn,</i>	3 Mech. Eng.
Raymond, Percy Edward,	<i>New Canaan, Ct.,</i>	1 Mech. Eng.
Raymond, Ralph,	<i>Brooklyn,</i>	2 Elect. Eng.
Read, Edith,	<i>Troy,</i>	4 Science
Reamer, Jane Elizabeth,	<i>Waterloo,</i>	3 Philosophy
Rector, George Washington,	<i>Chicago, Ill.,</i>	1 Law
Redfield, Harry Westfall,	<i>New York City,</i>	1 Arts
Reed, Daniel Alden,	<i>Sheridan,</i>	2 Law
Reed, Hugh Daniel,	<i>Hornellsville,</i>	1 Agriculture
Reede, Edward Hiram,	<i>Kent,</i>	4 Arts
Reed, Thurlow Weed,	<i>Hornellsville,</i>	Special Agriculture
Reid, Mary Elizabeth,	<i>Ithaca,</i>	4 Science
Reinhardt, Julius Emil,	<i>Chicago, Ill.,</i>	3 Mech. Eng.
Remsen, Charles Cornell,	<i>Brooklyn,</i>	2 Elect. Eng.
Rew, Frederick Gordon,	<i>Buffalo,</i>	1 Elect. Eng.
Reyna, Serapio,	<i>Morelos, Mexico,</i>	2 Civil Eng.
Reynolds, George Gardiner,	<i>Elmira,</i>	2 Law
Reynolds, James Irving,	<i>Potsdam,</i>	2 Arts
Reynolds, Leonard Jesse,	<i>Potsdam,</i>	1 Arts

Rhodes, Fred Dana,	Groton,	4 Civil Eng.
Rice, Jerome Bonaparte, Jr.,	Cambridge,	Special Agriculture
Rice, Louis Albert,	Ellington,	1 Elect Eng.
Rice, Philip Ensign,	Corinth,	1 Law
Rich, Harry Folsom,	Chicago, Ill.,	4 Science
Richardson, Alton Armitage,	Perry,	3 Mech. Eng.
Richardson, James, Jr.,	St. Louis, Mo.,	1 Arts
Richardson, William Carrington,	Brooklyn,	3 Arts
Richmond, Francis Alanson,	Adams, Mass.,	4 Science
Rider, Arthur Briggs,	Hyde Park,	2 Civil Eng.
Riley, Champlain Lord,	Ithaca,	3 Elect. Eng.
Riley, Howard Wait,	Ithaca,	1 Mech. Eng.
Rinkle, Frank Cutter,	Boonville,	1 Med. Prep.
Riotte, Gerard,	Costa Rica, Cent. Amer.,	1 Civil Eng.
Ripley, Robert Harris,	Riverside, Ill.,	Jr. Law
Ristine, George Washington, Jr.,	Chicago, Ill.,	1 Mech. Eng.
Ritchie, Norman Lamb,	Saratoga Springs,	1 Arts
Roach, Raymond J,	Akron,	1 Agriculture
Robbins, Loring Griswold,	Pittsfield, Mass.,	2 Optional
Robbins, Ralph Wellington,	Chicago, Ill.,	1 Mech. Eng.
Roberts, Edward Coleridge,	Port Byron,	1 Arts
Roberts, Owen Wilbur,	Oak Park, Ill.,	1 Mech. Eng.
Robertson, Phœbe Allene, M.E.L.,	Etna,	Special Mech. Eng.
Robinson, Horace John,	Brockville, Canada,	2 Law
Rockwood, Dwight Carrington,	Buffalo,	3 Elect. Eng.
Rockwood, Frederick Thomas,	Elmhurst, Ill.,	2 Science
Rodriquez, Damaso, B.C.E.,	Coah, Mexico,	3 Civil Eng.
Roe, Herbert Spencer,	Wolcott,	1 Agriculture
Rogers, George Peabody,	Michigan City, Ind.,	2 Architecture
Rogers, Helen,	Olympia, Wash.,	Special Arts
Rogers, Henry Geer,	Ausable Forks,	1 Mech. Eng.
Rogers, John Bethel,	Watertown,	4 Philosophy
Root, Eva Rosalie,	Skaneateles,	2 Arts
Root, Samuel Charles,	Oneida,	1 Elect. Eng.
Rose, Harry,	Whitesboro,	1 Mech. Eng.
Rose, Mabel Estey,	Brooklyn,	2 Arts
Rose, Stephen Edward,	Elmira,	4 Science
Rosekraus, Burton Warren,	Albany,	2 Civil Eng.
Rosenberg, Jacob George,	Rochester,	2 Arts
Ross, Ida Adella,	Brooklyn,	2 Science
Ross, Ida Adelle,	Ithaca,	4 Philosophy
Ross, Mary Jane,	Waverly,	4 Arts

Ross, William Alexander,	<i>Ithaca,</i>	4 Science
Royce, Eugene Godley,	<i>Escanoba, Mich.,</i>	1 Mech. Eng.
Rozier, Edgar Joseph,	<i>St. Louis, Mo.,</i>	Special Law
Rue, Malcom Asher,	<i>Brooklyn,</i>	2 Civil Eng.
Rufo, Henry Nimes,	<i>East Orange, N. J.,</i>	1 Elect. Eng.
Rushmore, Clare,	<i>La Grange, Ill.,</i>	1 Elect. Eng.
Russell, Joseph Heywood,	<i>Denver, Colo.,</i>	1 Agriculture
Rutzler, John Enoch,	<i>Brooklyn,</i>	2 Elect. Eng.
Ryan, Albert Henry,	<i>Watertown,</i>	3 Philosophy
Ryon, Arthur Clark,	<i>Kingston,</i>	1 Arts
Sanders, Frederick Morton,	<i>Scotch Bush,</i>	1 Law
Sanderson, Ezra Dwight, B.S.,	<i>Lansing, Mich.,</i>	4 Agriculture
Sanford, Warren Bixby,	<i>North Adams, Mass.,</i>	1 E. Eng.
Satterlee, John Paul,	<i>Gale's Ferry, Ct.,</i>	2 Mech. Eng.
Sauerhering, Richard Paul,	<i>Mayville, Wis.,</i>	1 Mech. Eng.
Savage, Edward Josiah,	<i>New Haven, Ct.,</i>	1 Optional
Saxton, Mary Lois,	<i>Brooklyn,</i>	2 Science
Sayer, Harry Allan,	<i>Newburgh,</i>	1 Law
Scharps, Albert Turner,	<i>Newburgh,</i>	2 Law
Scheibner, Frederick William, Jr.,	<i>Detroit, Mich.,</i>	1 Mech. Eng.
Schenck, Leon Henry,	<i>Fulton,</i>	1 Mech. Eng.
Schieren, George Arthur,	<i>Brooklyn,</i>	2 Elect. Eng.
Schlachter, Simon George,	<i>Syracuse,</i>	2 Law
Schnell, Frederick John,	<i>North Tonawanda,</i>	1 Law
Schoch, Layton Marton,	<i>Stroudsburg, Pa.,</i>	Special Law
Schreiner, Charles Armand,	<i>Kerrsville, Texas,</i>	1 Mech. Eng.
Schryver, George Harper,	<i>Cleveland, Ohio,</i>	1 Mech. Eng.
Schultz, Maurice Abram,	<i>Ellenville,</i>	1 Civil Eng.
Schutt, Kate Marilla,	<i>Hornellsville,</i>	4 Arts
Schuyler, Philip,	<i>New York City,</i>	1 Mech. Eng.
Schwartz, Barney Levy,	<i>Gowanda,</i>	2 Law
Scott, Anna Calista,	<i>Philadelphia, Pa.,</i>	Special
Scott, Charles Ralph,	<i>Ithaca,</i>	2 Elect. Eng.
Scott, Lawrence Irving,	<i>San Francisco, Cal.,</i>	2 Elect. Eng.
Scoville, Addison Beecher,	<i>Kattskill Bay,</i>	1 Law
Scribner, Edward Emmons,	<i>Newark, N. J.,</i>	1 Agriculture
Seabring, Cornelius Ora,	<i>Ithaca,</i>	2 Law
Searing, Benjamin Haff,	<i>Brooklyn,</i>	1 Arts
Sears, Keith,	<i>Searsburg,</i>	1 Med. Prep.
Sears, Woodard Wixom,	<i>Searsburg,</i>	1 Law
Seavey, Haller David,	<i>Bangor, Me.,</i>	1 Elect. Eng.
Secor, Wandell B,	<i>Savannah,</i>	2 Science

Sedgwick, Charles Baldwin,	<i>Syracuse,</i>	1 Law
Seeger, Edgar Percival,	<i>Chicago, Ill.,</i>	4 Elect. Eng.
Seelye, Allegra Eggleston,	<i>Lake George,</i>	2 Philosophy
Seix, John, Jr.,	<i>Ponce, Porto Rico,</i>	2 Mech. Eng.
Senior, John Lawson,	<i>Montgomery,</i>	1 Arts
Severson, Oscar Melvern,	<i>Plymouth, Pa.,</i>	1 Civil Eng.
Seward, Elliot Huntington,	<i>Utica,</i>	1 Law
Seymour, Arthur George,	<i>New York City,</i>	2 Mech. Eng.
Seymour, Claire,	<i>Gloversville,</i>	1 Arts
Seymour, Maude Dora,	<i>Brooklyn,</i>	4 Science
Shafer, William Bell, Jr.,	<i>Brooklyn,</i>	4 Elect. Eng.
Shanks, Amy Chamberlain,	<i>New York City,</i>	2 Arts
Shanks, Lewis Edgar,	<i>Greenwich,</i>	2 Philosophy
Shanks, Sally Gore,	<i>New York City,</i>	2 Arts
Shaw, Herbert Allen,	<i>Gowanda,</i>	2 Law
Shea, Mabel Mary,	<i>Syracuse,</i>	1 Arts
Shea, Michael Bartholomew,	<i>Attica,</i>	2 Mech. Eng.
Sheldon, Charles Lacy, Jr.,	<i>Auburn,</i>	1 Arts
Sheldon, Ira Cyrus,	<i>Copenhagen,</i>	4 Architecture
Sheldon, Philena Rebecca,	<i>Montague, Mass.,</i>	2 Arts
Sheldon, Seth L.,	<i>Wadsworth,</i>	4 Agriculture
Sherman, Ozro Gould,	<i>Chicago, Ill.,</i>	1 Letters
Sherwood, Arthur Henry,	<i>Kingston,</i>	1 Mech. Eng.
Sherwood, Carlyle Johnson,	<i>Syracuse,</i>	Special Mech. Eng.
Sherwood, Mather Williams,	<i>Syracuse,</i>	3 Mech. Eng.
Shinn, Warren,	<i>Woodstown, N. J.,</i>	Sp. Agriculture
Shire, Moses Edmund,	<i>Chicago, Ill.,</i>	2 Civil Eng.
Short, Gideon Pitts,	<i>Honeoye,</i>	3 Arts
Short, John Cleves,	<i>Fern Bank, O.,</i>	1 Arts
Sias, Carleton,	<i>Spencerport,</i>	2 Law
Sidway, Clarence Spaulding.	<i>Buffalo,</i>	2 Mech. Eng.
Simmons, Henry Gassett,	<i>Newport, R. I.,</i>	1 Mech. Eng.
Simmons, Lucretia Van Tyle,	<i>Richmondville,</i>	4 Philosophy
Simons, Harry Lee,	<i>Sardinia,</i>	1 Elect. Eng.
Simpson, Percy William,	<i>New York City,</i>	4 Arts
Singer, Simon Augustus, A.B.,	<i>Mapleton, O.,</i>	Special Arts
Sipp, John Irving,	<i>Passaic, N. J.,</i>	Special Agriculture
Sirdevan, William Joseph,	<i>Titusville, Pa.,</i>	1 Law
Skidmore, Charles Albert,	<i>Milton,</i>	2 Law
Skinner, Frances Brown,	<i>Medina,</i>	1 Arts
Skinner, John Alfred,	<i>Sherman,</i>	1 Civil Eng.
Skinner, Harrold Baldwin,	<i>Albany,</i>	Special Architecture

Skinner, Mary Pendexter,	<i>Medina,</i>	1 Law
Slater, Mary Florence Wells,	<i>Raleigh, N. C.,</i>	3 Science
Sleicher, Harry Seidel,	<i>Troy,</i>	1 Law
Slingerland, Grace,	<i>Slingerlands,</i>	2 Science
Slocum, Alexander Norton,	<i>Buffalo,</i>	1 Civil Eng.
Slocum, Katherine Maud,	<i>Ithaca,</i>	1 Arts
Smalley, Emerson,	<i>New York City,</i>	2 Mech. Eng.
Smallwood, Charles Burlingame,	<i>Warsaw,</i>	2 Arts
Smiley, Maude,	<i>Ithaca,</i>	Special Arts
Smith, Arthur Boies,	<i>Westport,</i>	2 Law
Smith, Don E,	<i>Buffalo,</i>	1 Arts
Smith, Edward Percy,	<i>Brooklyn,</i>	2 Mech. Eng.
Smith, Edmund Sewall,	<i>Buffalo,</i>	3 Science
Smith, George Gates, Jr.,	<i>Flint,</i>	4 Civil Eng.
Smith, George Sellers,	<i>Wilmington, Del.,</i>	2 Science
Smith, Harry Hale,	<i>St. Paul, Minn.,</i>	2 Arts
Smith, Harry Martin,	<i>Springfield, Mass.,</i>	3 Mech. Eng.
Smith, Helen Florence,	<i>Penn Yan,</i>	1 Arts
Smith, Julian Cleveland,	<i>Buffalo,</i>	1 Elect. Eng.
Smith, Le Roy Burns,	<i>Malcom,</i>	1 Arts
Smith, Louis James,	<i>Le Roy,</i>	3 Elect. Eng.
Smith, Moffatt,	<i>New York City,</i>	Sp. Agriculture
Smith, Oscar Francis,	<i>Victor,</i>	2 Arts
Smith, Peter,	<i>Andover, Mass.,</i>	2 Mech. Eng.
Smith, Sherman Edwin,	<i>Cameron, Mo.,</i>	2 Elect. Eng.
Smith, William McAllister,	<i>St. Paul, Minn.,</i>	4 Elect. Eng.
Smoot, Lloyd Duvall,	<i>Washington, D. C.,</i>	1 Elect. Eng.
Snow, Robert Morris, Ph.B.,	<i>Fulton,</i>	2 Law
Snyder, Veda Elizabeth,	<i>Etna,</i>	3 Philosophy
Sommer, Harry Frank,	<i>New York City,</i>	1 Law
Southard, George Lee,	<i>Buffalo,</i>	1 Mech. Eng.
Sowden, Lee,	<i>Germantown, Pa.,</i>	1 Agriculture
Spence, Carl Clement,	<i>Crystal Springs, Miss.,</i>	1 E. Eng.
Spencer, Virginia Emeline,	<i>Middle Granville,</i>	1 Philosophy
Sperling, Nathaniel Joseph,	<i>Bozeman, Mont.,</i>	4 Mech. Eng.
Spier, Daniel Richard,	<i>Palmyra,</i>	2 Elect. Eng.
Spiker, William Claer,	<i>Cadiz, O.,</i>	2 Civil Eng.
Spoehrer, Herman, Jr.,	<i>New York City,</i>	3 Elect. Eng.
Sporborg, Henry N,	<i>Gloversville,</i>	3 Elect. Eng.
Squires, Harold Chauncey,	<i>Lestershire,</i>	1 Arts
Stamford, Albert,	<i>Grand View,</i>	3 Mech. Eng.
Stamford, William Boyd,	<i>Grand View,</i>	1 Elect. Eng.

Stancliff, Clayton Miner,	<i>Titusville, Pa.,</i>	1 Law
Stancliff, Ray Jones, V.S.,	<i>Derby,</i>	3 Veterinary
Standring, William Henry,	<i>Newburgh,</i>	3 Arts
Stanley, Roy Morgan,	<i>Le Roy,</i>	2 Elect. Eng.
Stanton, John Milton,	<i>Corning,</i>	1 Arts
Starbuck, Raymond Donald,	<i>Glens Falls,</i>	2 Civil Eng.
Stearn, Sidney,	<i>Cleveland, O.,</i>	2 Science
Stedman, Irving Lynn,	<i>Homer,</i>	2 Mech. Eng.
Steele, Wesley,	<i>Brooklyn,</i>	4 Elect. Eng.
Stelle, Morton Burr, Jr.,	<i>New York City,</i>	2 Civil Eng.
Stephens, Albert Woodward, A.B.,	<i>Lewisburg, Pa.,</i>	3 Agriculture
Stephens, James W.,	<i>Syracuse,</i>	1 Mech. Eng.
Stern, Arthur Lewis,	<i>Rochester,</i>	2 Science
Stern, Henry Michael,	<i>Rochester,</i>	2 Science
Steuber, Henry John,	<i>Le Roy,</i>	4 Science
Stevens, Charles Aldrich,	<i>Ithaca,</i>	1 Philosophy
Stevens, Charles Edmund,	<i>Hornellsville,</i>	1 Architecture
Stevens, Edward Livingston, Jr.,	<i>Rome,</i>	3 Arts
Stevens, Walter Campbell,	<i>New York City,</i>	2 Law
Stevenson, Joseph Welch,	<i>Burnham, Pa.,</i>	1 Mech. Eng.
Stocking, William Alonzo, Jr., B.Agr.,	<i>Weatogue, Conn.,</i>	4 Agriculture
Stoll, Henry Farnum,	<i>Port Jervis,</i>	2 Med. Prep.
Stone, Charles Lucius,	<i>Troy,</i>	1 Arts
Stone, Clara Louise,	<i>Rochester,</i>	2 Philosophy
Stone, Garry Terrell,	<i>Binghamton,</i>	1 Veterinary
Stone, Imogen,	<i>Clinton, La.,</i>	Special Arts
Stover, David Shuler,	<i>Amsterdam,</i>	1 Civil Eng.
Straight, Willard Dickerman,	<i>Oswego,</i>	1 Architecture
Strasburger, Edgar James,	<i>Butte, Mont.,</i>	2 Civil Eng.
Stratton, Frank Littrell,	<i>Louisville, Ky.,</i>	1 Elect. Eng.
Strong, Marvin Willis,	<i>Sayville,</i>	1 Elect. Eng.
Strong, Morgan, LL.B.,	<i>Amsterdam,</i>	Special Arts
Strong, Ormond Butler,	<i>Savannah, Ga.,</i>	3 Arts
Strong, Will Austin, A.B.,	<i>Los Angeles, Cal.,</i>	2 Law
Sullivan, Mortimer Leo,	<i>Elmira,</i>	2 Law
Surpless, Thomas John,	<i>Brooklyn,</i>	1 Law
Sutherland, Frederick Brush,	<i>Ithaca,</i>	Special Agriculture
Sutton, Clarence Wesley,	<i>Ithaca,</i>	1 Arts
Sutton, John Morris,	<i>Ovid,</i>	4 Science
Swanitz, Henry Wade,	<i>New York City,</i>	2 Civil Eng.
Sweet, Arthur Jeremiah,	<i>Maynard,</i>	1 Arts
Sweetland, Edwin Regur,	<i>Dryden,</i>	1 Agriculture

Swift, Parton,	<i>Buffalo,</i>	2 Philosophy
Sze, Sao-ke Alfred,	<i>Shanghai, China,</i>	1 Arts
Taber, Judson Merrick,	<i>Addison,</i>	3 Science
Tag, Frederick Casimir,	<i>Brooklyn,</i>	1 Elect. Eng.
Takatsuji, Yoshimaro,	<i>Tokio, Japan,</i>	4 Elect. Eng.
Talbott, H Worthington, B.S.,	<i>Rockville, Md.,</i>	3 Elect. Eng.
Talbott Thomas Maurier,	<i>Rockville, Md.,</i>	3 Science
Tangeman, Cornelius Hoagland,	<i>Brooklyn,</i>	1 Arts
Tanner, Richard William, Jr.,	<i>Dolgeville,</i>	2 Law
Tappen, Alexander Bonnell,	<i>New York City,</i>	2 Mech. Eng.
Tarr, Raymond Porter,	<i>Gloucester, Mass.,</i>	3 Science
Taylor, Harry Leroy,	<i>Hamburg,</i>	4 Arts
Taylor, Robert Cromwell,	<i>Indiana, Pa.,</i>	3 Civil Eng.
Taylor, Thomas Bassett,	<i>New York City,</i>	1 Mech. Eng.
Taylor, Thomas Walter,	<i>Brooklyn,</i>	2 Civil Eng.
Taylor, William Scott,	<i>Penn Yan,</i>	2 Philosophy
Teagle, Walter Clark,	<i>Cleveland, O.,</i>	2 Mech. Eng.
Teal, Arthur Raymond,	<i>Rochester,</i>	1 Mech. Eng.
Tenney, Maynard Augustine,	<i>Brunswick, Me.,</i>	4 Civil Eng.
Teter, George Isaac,	<i>Jacksonville,</i>	2 Law
Thalman, Helen Elizabeth,	<i>Rome,</i>	3 Philosophy
Thayer, Edwin French,	<i>Attleboro, Mass.,</i>	2 Agriculture
Thayer, Horace Hadden, Jr.,	<i>Yonkers,</i>	3 Mech. Eng.
Thebaud, Eugene Delphin,	<i>Buffalo,</i>	3 Science
Thiessen, Alfred Henry,	<i>Troy,</i>	4 Science
Thomas, Cassius Amasa,	<i>Saratoga Springs,</i>	2 Elect. Eng.
Thomas, David Radet,	<i>Hokendaugua, Pa.,</i>	1 Mech. Eng.
Thomas, Eva Alice,	<i>Waverly,</i>	2 Arts
Thomas, Gordon,	<i>Alexandria, Va.,</i>	1 Elect. Eng.
Thomas, William Clarence,	<i>Wilkes-Barre, Pa.,</i>	1 Civil Eng.
Thompson, Kennington Leaning,	<i>Cooperstown,</i>	2 Arts
Thompson, Thomas Perrin, B.S. in	<i>M. E., Atlanta, Ga.,</i>	4 Mech. Eng.
Thompson, Vera May,	<i>Gloversville,</i>	2 Philosophy
Thomson, Alexander, Jr.,	<i>Brooklyn,</i>	3 Civil Eng.
Thomson, Walter Scott,	<i>New York City,</i>	1 Architecture
Thomson, William Hargadine,	<i>St. Louis, Mo.,</i>	4 Mech. Eng.
Thro, William Crooks,	<i>Elmira,</i>	1 Agriculture
Tiffany, John Blakeslee,	<i>Hop Bottom, Pa.,</i>	1 Agriculture
Tiffany, Nelson Otis, Jr.,	<i>Buffalo,</i>	1 Civil Eng.
Tinker, Joseph Beard,	<i>Rock Stream,</i>	3 Elect. Eng.
Tissington, Richard Andrews,	<i>Montclair, N. J.,</i>	2 Architecture
Toaz, Mabel Elizabeth,	<i>Rochester,</i>	2 Arts

Tobey, Harry Ransom, Ph.B.,	<i>Port Henry,</i>	2 Law
Tobias, Charlene Adell,	<i>Ithaca,</i>	3 Philosophy
Tomlinson, May,	<i>Plainfield, N. J.,</i>	Special Arts
Tompkins, Ernest,	<i>Troy,</i>	4 Mech. Eng.
Tompkins, Sidney,	<i>Troy,</i>	1 Mech. Eng.
Tooley, William Benjamin,	<i>Raceville,</i>	1 Civil Eng.
Torney, Edward John,	<i>West Point,</i>	1 Law
Torrance, Chester Clay,	<i>Gowanda,</i>	3 Civil Eng.
Torrance, Lucy Pansy,	<i>Gowanda,</i>	3 Philosophy
Tourison, Ashton Stephen, Jr.,	<i>Germantown, Pa.,</i>	1 Mech. Eng.
Townley, Helen Mar,	<i>South Lansing,</i>	3 Philosophy
Tracy, Charles Aurelius,	<i>Ghent,</i>	1 Science
Tracy, Frank Sedgwick,	<i>Syracuse,</i>	2 Science
Tracy, James Grant,	<i>Syracuse,</i>	4 Philosophy
Tracy, Lyndon Sanford,	<i>Syracuse,</i>	4 Mech. Eng.
Trautschold, Reginald,	<i>Montclair, N. J.</i>	1 Mech. Eng.
Trautwine, John Cresson, 3d,	<i>Philadelphia, Pa.,</i>	2 Civil Eng.
Travis, Thurlow,	<i>Peekskill,</i>	Jr. Law
Traxel, Emma Jane,	<i>New London,</i>	3 Science
Treat, Lillian Amelia,	<i>Auburn,</i>	1 Arts
Treganza, Howard Joseph, B.S. in E. E.,	<i>Brooklyn,</i>	4 Elect. Eng.
Trowbridge, Cornelia Burton,	<i>New Haven, Conn.,</i>	3 Science
Truman, James Steele, Ph.B.,	<i>Owego,</i>	2 Law
Truman, Nathan Elbert,	<i>Bainbridge,</i>	2 Arts
Trumbull, Alonzo George,	<i>Hornellsville,</i>	3 Mech. Eng.
Tryon, Clarence Archer,	<i>Oakfield,</i>	1 Elect. Eng.
Tschentscher, Rudolph, B.S. in M. E.,	<i>Indianapolis, Ind.,</i>	4 Mech. Eng.
Tuck, Andrew Edward,	<i>Flackville,</i>	4 Philosophy
Tucker, Alice Lucile,	<i>Fulton,</i>	1 Arts
Tullar, Bayard Cobb,	<i>Wellsville,</i>	2 Law
Tuller, Henry Hiram,	<i>Richfield Springs,</i>	1 Civil Eng.
Turnbull, William Arthur,	<i>Ithaca,</i>	1 Law
Turrill, Sherman Marsh,	<i>Ithaca,</i>	2 Arch.
Tuttle, Sydney Lauren,	<i>Big Flats,</i>	2 Civil Eng.
Tyler, Francis John,	<i>Detroit, Mich.,</i>	1 Arts
Uihlein, Edgar John,	<i>Chicago, Ill.,</i>	1 Science
Underdown, Milton Miller,	<i>Taughannock Falls,</i>	1 Agriculture
Underhill, Arthur,	<i>Montclair, N. J.,</i>	3 Civil Eng.
Underwood, Howard Warren,	<i>North Adams, Mass.,</i>	1 Civil Eng.
Upton, Maxwell Mayhew, B.A.,	<i>Grand Forks, N. Dak.,</i>	3 Mech. E.
Urquiza, y Bea,	<i>Boston, Mass.,</i>	2 Mech. Eng.
Vail, George Truesdell,	<i>Michigan City, Ind.,</i>	1 Arts

Valentine, Walter Scott,	<i>Wallingford, Conn.,</i>	2 Elect. Eng.
Vanderhoef, Henry Earnest,	<i>Ithaca,</i>	1 Mech. Eng.
Vandewalker, George Henry, Ph.B.,	<i>Clayton,</i>	2 Law
Van Dine, Delos Lewis,	<i>Ithaca,</i>	1 Agriculture
Van Everen, Jay,	<i>Brooklyn,</i>	3 Architecture
Van Gordon, John Wallace,	<i>Matamora, Pa.,</i>	2 Law
Van Namee, George Rivet,	<i>Watertown,</i>	1 Law
Van Nostrand, John James,	<i>Brooklyn,</i>	Special Law
Van Pelt, Harry Loren,	<i>Ithaca,</i>	1 Med. Prep.
Van Valkenburg, Ralph D.,	<i>Greene,</i>	1 Mech. Eng.
Van Wert, Susan Evens,	<i>Jamestown,</i>	4 Arts
Van Winkle, Adrienne,	<i>Ridgefield, Conn.,</i>	Special Arts
Veatch, Arthur Clifford,	<i>Rockport, Ill.,</i>	1 Arts
Vedder, Frank Hanley,	<i>Utica,</i>	3 Philosophy
Vedder, Marcia,	<i>St. Johnsville,</i>	2 Optional
Vickers, Squire Joseph,	<i>Roseboom,</i>	2 Architecture
Vocke, Charles William,	<i>Baltimore, Md.,</i>	3 Mech. Eng.
Voege, Adolph Law,	<i>Brooklyn,</i>	3 Elect. Eng.
Voegelin, Carl Oswald,	<i>Delhi,</i>	1 Arts
Vogleson, John Albert,	<i>Los Angeles, Cal.,</i>	2 Civil Eng.
Voorhees, Frank Duryea,	<i>Jersey City, N. J.,</i>	2 Mech. Eng.
Vose, Roy Mandeville,	<i>Ithaca,</i>	1 Med. Prep.
Vreeland, George Washington,	<i>New York City,</i>	2 Elect. Eng.
Wagner, Dwight Homans,	<i>Wheeling, W. Va.,</i>	3 Architecture
Wagner, Edward Andrew,	<i>New York City,</i>	Sp. Mech. Eng.
Wagner, George Olds,	<i>Buffalo,</i>	2 Civil Eng.
Wait, Owen Adelbert,	<i>Weedsport,</i>	4 Civil Eng.
Wakeman, Samuel Sherwood,	<i>Vista,</i>	1 Architecture
Wakeman, Samuel Wiley,	<i>Bridgeport, Conn.,</i>	3 Elect. Eng.
Walch, Frederick Edward,	<i>Syracuse,</i>	4 Science
Walker, Elisha Hubbell,	<i>Bridgeport, Conn.,</i>	1 Architecture
Walker, Gertrude,	<i>Watertown,</i>	Special Arts
Walter, Philip Maxwell,	<i>Chicago, Ill.,</i>	1 Science
Walter, Richard Oliver,	<i>Whitney's Point,</i>	1 Arts
Walton, Harryington Olcott,	<i>New York City,</i>	1 Architecture
Ward, Archibald Robinson,	<i>Ithaca,</i>	4 Agriculture
Ward, Harry A.,	<i>Oneonta,</i>	2 Elect. Eng.
Ward, Joseph Emery,	<i>Evanston, Ill.,</i>	2 Science
Ware, Robert Galen, Jr.,	<i>Baltimore, Md.,</i>	3 Mech. Eng.
Warner, Alfred du Pont, Jr.,	<i>Wilmington, Del.,</i>	2 Science
Warren, Andrew, Jr.,	<i>St. Louis, Mo.,</i>	1 Civil Eng.
Warren, Richard Cornell,	<i>Ithaca,</i>	Special Agriculture
Waterbury, William Felter,	<i>Oriskany,</i>	1 Science

Waterman, Grace Salisbury,	<i>Worcester,</i>	3 Optional
Waters, Henry Langworthy,	<i>Rochester,</i>	2 Elect. Eng.
Watkins, George Pendleton,	<i>Belleville,</i>	3 Arts
Wattles, Luck Woodford,	<i>Ithaca,</i>	1 Arts
Weed, Joseph Bartholomew, Jr.,	<i>Newark, N. J.,</i>	2 Science
Weidner, Paul Gustavus,	<i>Buffalo,</i>	1 Elect. Eng.
Weiss, Julius,	<i>New York City,</i>	3 Science
Wells, Edgar Charles,	<i>Duluth, Minn.,</i>	4 Mech. Eng.
Wensley, Emma Jane,	<i>Albany,</i>	2 Optional
Wentz, John Leisenring,	<i>Mauch Chunck, Pa.,</i>	3 Mech. Eng.
Wessels, Arthur Lewis, B.S.,	<i>Clinton, Iowa,</i>	3 Science
West, Charles Cameron,	<i>Chicago, Ill.,</i>	2 Mech. Eng.
West, Erastus Lovette,	<i>Lakeville,</i>	3 Elect. Eng.
West, George Hutton,	<i>Reber,</i>	1 Agriculture
Westheimer, Irvin Ferdinand,	<i>St. Joseph, Mo.,</i>	1 Agriculture
Westwood, Emily Augusta,	<i>Fredonia,</i>	4 Arts
Wheeler, Gratton Henry,	<i>Hammondsport,</i>	Special Law
Wheeler, Jane Maria,	<i>Bolton, Mass.,</i>	2 Optional
Wheeler, L. Jay,	<i>Trumansburg,</i>	1 Law
Whinery, Charles Crawford,	<i>East Orange, N. J.,</i>	3 Science
Whinery, Samuel Brent,	<i>East Orange, N. J.,</i>	3 Mech. Eng.
Whipple, Helen Winifred,	<i>Binghamton,</i>	2 Arts
Whiskeman, James Peter,	<i>Reading, Pa.,</i>	4 Civil Eng.
Whitaker, Joseph,	<i>Salt Lake City, Utah,</i>	Opt. Law
Whitaker, Morris Mortimer, A.B.,	<i>Sackett's Harbor,</i>	Sp. Mech. Eng.
White, Bertha Othniel,	<i>Titusville Pa.,</i>	2 Science
White, Harold Elijah,	<i>Syracuse,</i>	4 Mech. Eng.
White, Henry Graves,	<i>Syracuse,</i>	2 Mech. Eng.
White, John Sumner,	<i>Ithaca,</i>	1 Civil Eng.
White, Kelton Ewing,	<i>St. Louis, Mo.,</i>	1 Arts
White, Le Roy Cooley,	<i>Delanson,</i>	Special Agriculture
White, Walter Charles,	<i>Cleveland, O.,</i>	4 Science
White, Willard Olney,	<i>Blossvale,</i>	2 Civil Eng.
Whiteman, Floy Edward,	<i>Wayland,</i>	1 Law
Whiting, Allen Edward,	<i>Holyoke, Mass.,</i>	Jr. Law
Whiting, Sidney Edwin,	<i>Holyoke, Mass.,</i>	4 Mech. Eng.
Whitman, Ezra Bailey,	<i>Baltimore, Md.,</i>	1 Civil Eng.
Whitney, Alexander Barry, B.S. in	<i>M. E., Augusta, Ga.,</i>	2 Mech. Eng.
Whitney, Bertha Augusta,	<i>Gouverneur,</i>	2 Arts
Whitney, George Stoddard,	<i>Binghamton,</i>	1 Arts
Whitson, Abraham Underhill,	<i>Westbury Station,</i>	2 Civil Eng.
Whitwell, Livingston Miller,	<i>Fort Plain,</i>	2 Science

Wicker, Mabel Louise,	<i>Ithaca,</i>	2 Arts
Wickham, Robert Sloane,	<i>Binghamton,</i>	1 Law
Wieland, Albert Edgar,	<i>Milwaukee, Wis.,</i>	2 Elect. Eng.
Wienhoeber, George William,	<i>Chicago, Ill.,</i>	2 Agriculture
Wilcox, Clark Luzerne,	<i>Mexico,</i>	1 Civil Eng.
Wile, Mortimer Emmanuel,	<i>Rochester,</i>	3 Letters
Wilgus, Herbert Sedgwick,	<i>Buffalo,</i>	1 Civil Eng.
Wilkins, Robert Morris,	<i>New York City,</i>	3 Elect. Eng.
Will, Frederick,	<i>Rochester,</i>	1 Arts
Will, Phillip,	<i>Rochester,</i>	2 Elect. Eng.
Willard, Gertrude Luella,	<i>Geneseo,</i>	4 Philosophy
Willard Gladys,	<i>Brooklyn,</i>	4 Philosophy
Williams, Albert Chadwick,	<i>Hinsdale, Ill.,</i>	1 Civil Eng.
Williams, Charles Spencer,	<i>Ithaca,</i>	4 Arts
Williams, David Percy,	<i>Terre Haute, Ind.,</i>	2 Law
Williams, Florence Louise,	<i>Le Roy,</i>	4 Arts
Williams, Friend Pitts,	<i>Olean,</i>	3 Civil Eng.
Williams, George Charles,	<i>Dryden,</i>	1 Arts
Williams, Howard Shay,	<i>Brooklyn,</i>	1 Civil Eng.
Williams, John Digain,	<i>Llangerniew, Wales,</i>	Special Arts
Williams, Roger Butler, Jr.,	<i>Ithaca,</i>	1 Civil Eng.
Willis, Frederick,	<i>Flushing,</i>	1 Arts
Willis, William,	<i>Flushing,</i>	2 Mech. Eng.
Williston, David Augustus,	<i>New York City,</i>	3 Agriculture
Wills, Alexander,	<i>West Bay City, Mich.,</i>	Sp. M. Eng.
Wilson, Benjamin West, B. Agr.,	<i>Fraer, Iowa,</i>	4 Agriculture
Wilson, Christopher William, Jr.,	<i>Brooklyn,</i>	1 Law
Wilson, Elbert Andrew,	<i>Ithaca,</i>	2 Science
Wilson, Helen Elizabeth,	<i>Ithaca,</i>	3 Arts
Wilson, Jesse Henry, Jr.,	<i>Washington, D. C.,</i>	2 Arts
Wilson, Victor Tyson,	<i>Ithaca,</i>	1 Architecture
Wilson, William Edward,	<i>New York Mills,</i>	1 Civil Eng.
Wiltse, Herbert Alphonso,	<i>Hannibal,</i>	2 Mech. Eng.
Windsor, Philip Brundage,	<i>Hornellsville,</i>	2 Civil Eng.
Wines, Arthur Frederick,	<i>Springfield, Ill.,</i>	3 Mech. Eng.
Wiun, Earl Judson,	<i>Ithaca,</i>	1 Arts
Winslow, Elizabeth Bishop,	<i>Ithaca,</i>	1 Arts
Wittenmeyer, Samuel, Jr.,	<i>Middleburg, Pa.,</i>	1 Civil Eng.
Wixom, Elbert Cook,	<i>Perry City,</i>	2 Science
Wood, Alfred Thomas,	<i>Defiance, O.,</i>	1 Elect. Eng.
Wood, Ebenezer Albert,	<i>South Salem,</i>	1 Law
Wood, Herbert Spencer,	<i>Washington, D. C.,</i>	1 Arts

Wood, Nancy Claflin,	<i>Mendon, Mass.,</i>	2 Optional
Wood, Walter Wallace,	<i>Westbury,</i>	1 Mech. Eng.
Woodhull, Gilbert Bengen,	<i>Brooklyn,</i>	2 Elect. Eng.
Woodyatt, Rollin Turner,	<i>Evanston, Ill.,</i>	1 Med Prep.
Wormuth, Romeyn,	<i>Port Leyden,</i>	1 Arts
Worrall, Charles Addams,	<i>New York City,</i>	Sp. Mech. Eng.
Worth, Frances Elvira,	<i>Ithaca,</i>	2 Philosophy
Wright, Floyd Robins,	<i>Ithaca,</i>	2 Arts
Wright, Henry Wilkes,	<i>Harbor Springs, Mich.</i>	2 Phil.
Wright, Paul Loring,	<i>Worthington O.,</i>	1 Law
Wright, Thorpe Wesley,	<i>Montclair. N. J.,</i>	2 Law
Wright, Walter Bradley,	<i>Ithaca,</i>	2 Law
Wright, Wilfred La Selles,	<i>Sioux City, Iowa,</i>	2 Elect. Eng.
Wurst, Perry Edward,	<i>Holland,</i>	3 Letters
Wyckoff, Ferdinand,	<i>Elmira,</i>	1 Law
Wyckoff, George Warren,	<i>Elmira,</i>	1 Agriculture
Wynne, John Hancock,	<i>Ithaca,</i>	4 Mech. Eng.
Wyvell, Manton Marble,	<i>Alma,</i>	1 Arts
Yale, William Truman, Ph.B.,	<i>Cortland,</i>	2 Law
Yates, Charles Halsted, A.B.,	<i>Utica,</i>	4 Agriculture
Yeatman, Walter Clark,	<i>Grand View, Tenn.,</i>	3 Elect. Eng.
Yost, George,	<i>Johnstown,</i>	2 Science
Yost, Nicholas D,	<i>Adams,</i>	2 Law
Youmans, Frederick William,	<i>Delhi,</i>	Jr. Law
Young, Adelaide Taber,	<i>Wellsboro, Pa.,</i>	3 Science
Young, Chester,	<i>Ellenville,</i>	4 Science
Young, Charles Van Patten,	<i>Williamsport, Pa.,</i>	2 Arts
Young, Elva Hubbard, A.B.,	<i>Springfield, Mass.,</i>	2 Law
Young, George, Jr.,	<i>Ellenville,</i>	2 Architecture
Young, George Harper,	<i>Williamsport, Pa.,</i>	2 Mech. Eng.
Young, Henry Amerman,	<i>Yonkers,</i>	3 Civil Eng.
Young, Helen Louise,	<i>Marion,</i>	2 Arts
Young, Joseph Witham,	<i>Brooklyn,</i>	2 Philosophy
Young, Lou E,	<i>Gloversville,</i>	4 Arts
Young, Mary Gertrude,	<i>Marion,</i>	4 Arts
Young, Nathan Elmer,	<i>Owego,</i>	1 Civil Eng.
Young, Ralph Goldsmith,	<i>Galveston, Texas,</i>	1 Mech. Eng.
Zabriskie, Henry Lyles,	<i>Brooklyn,</i>	4 Elect. Eng.
Zeller, Eugene Charles,	<i>St. Louis, Mo.,</i>	3 Science
Zink, Walter Martin,	<i>Buffalo,</i>	3 Letters
Ziporkes, William Jerome,	<i>New York City,</i>	2 Civil Eng.
Zolzer, Charles Henry,	<i>Brooklyn,</i>	1 Civil Eng.

STUDENTS IN THE SUMMER SCHOOL.

Angell, Nina,	<i>Ithaca,</i>	Mathematics
Ard, Charles Edgar, B.M.E., (<i>Ga. School Tech.</i>),		Physics
	<i>Agricultural College, Miss.</i>	
Baldwin, Austin Guy,	<i>Columbus, O.,</i>	Math., Chemistry
Bass, Sarah Ahalena, B.A., (<i>Wellesley</i>),	<i>Plainfield, N. J.,</i>	French
Bear, Olive May, L.M., (<i>Knox</i>),	<i>Decatur, Ill.,</i>	French, English
Bell, Horace Milton,	<i>Washington, D. C.,</i>	Physics
Belsley, Clay,	<i>Peoria, Ill.,</i>	Physics
Bentley, Gordon Mansir,	<i>Great Barrington, Mass.,</i>	Math.
Blair, Charles Hildreth,	<i>Ithaca,</i>	Elocution, French,
		Economics
Blake, Harriet White, A.B., (<i>Smith</i>), A.M., (<i>Brown</i>),		Drawing
	<i>Providence, R. I.</i>	
Blake, Herbert Arthur, A.B., (<i>Dartmouth</i>),	<i>Providence, R. I.,</i>	Law
Blount, John Isham, B.E., C.E., (<i>Agr. and Mech. Coll. of N. C.</i>),		
	<i>Faison, N. C.,</i>	Physics, French
du Bois, Elizabeth Hickman, A.B.,	<i>Philadelphnia, Pa.,</i>	Greek
Bond, Oliver James,	<i>Charleston, S. C.,</i>	Mech. Drawing
Brewster, Henry Baum,	<i>Syracuse,</i>	Physics and Mech. Eng.
Bull, Ernest Miller,	<i>Elizabeth, N. J.,</i>	Economics,
		Elocution, Drawing
Bump, Elizabeth Washburn, Ph.B.,	<i>Ithaca,</i>	German
Burditt, William Fatherby,	<i>Ithaca,</i>	Math., Chem., Mech. Eng.
Burnett, Samuel Howard, A.B., M.S.,	<i>Webster,</i>	Chemistry
Burnett, William John,	<i>Brooklyn,</i>	Chemistry
Campbell, William Whitmore,	<i>Lockport,</i>	Law
Carman, Charlotte J,	<i>Akron,</i>	Mathematics
Casselman, James Henry,	<i>South Finch, Ont., Can.,</i>	English
Chapman, Cloyd Mason,	<i>Ithaca,</i>	Mech. Eng.
Cheatham, Emma Edith, A.M., (<i>Randolph Macon Coll.</i>),		Mathematics
	<i>Suffolk, Va.</i>	
Clark, David, B.E., M.E., C.E., (<i>Agr. and Mech. Coll. of N. C.</i>),		French, Mech. Eng.
Clark, John Anson, B.S.,	<i>Ithaca,</i>	Physics
Cobbs, Mary Love,	<i>Pittsylvania, Va.,</i>	Latin
Coffin, William Jay,	<i>Albany,</i>	Law
Cole, Alfred Dodge, A.B., A.M., (<i>Brown</i>),	<i>Granville, Ohio,</i>	Physics
Cook, Hugh Oliver,	<i>Washington, D. C.,</i>	Mathematics

Cooley, Mary Elizabeth, A.B.,	(<i>Vassar</i>), <i>Poughkeepsie</i> ,	Physics
Coon, Claude L.,	<i>Canton, Pa.</i> ,	Law
Cornell, Mary Emily,	<i>Ithaca</i> ,	French, Italian
Curran, Benjamin S., Jr.,	<i>Binghamton</i> ,	Law
Daugherty, Benjamin Franklin, A.M.,	(<i>Lebanon Valley Coll.</i>), <i>Latin</i>	
	<i>Harrisburg, Pa.</i>	
Dearstyne, Florence Evelyn, B.S.,	<i>Sandy Hill</i> ,	English, Economics.
Deeds, Edward Andrew, B.S.,	(<i>Deinson Univ.</i>),	Physics, Mech.
	<i>Granville, Ohio</i> ,	Drawing
DeLano, Warren Varney,	<i>Witherbee</i> ,	Mech. Drawing,
		Physics, Mech. Eng.
Doan, Mary, B.S., M.S.,	(<i>Purdue Univ.</i>), <i>B.L.</i> , (<i>Earlham</i>),	English
	<i>Westfield, Ind.</i>	
Doherty, Mary,	<i>Cincinnati, Ohio</i> ,	Latin, German
Eckels, George Humer, A.B.,	(<i>Gettysburg Coll.</i>),	Latin, Greek
	<i>Shippensburg, Pa.</i>	
Egbert, Elizabeth,	<i>Sandy Lake, Pa.</i> ,	Drawing
Ely, Sarah Yardley,	<i>Trenton, N. J.</i> ,	Mathematics
Escher, Paul,	<i>Syracuse</i> ,	Chemistry
Fanck, Louis Oscar,	<i>Lockport</i> ,	Mech. Eng.
Farley, Leon S.,	<i>Fort Plain</i> ,	Law
Farnsley, Burrell Hopson, B.A.,	(<i>Louisville Male High School</i>), <i>L.L.B.</i> ,	
	(<i>Louisville Law School</i>), <i>Louisville, Ky.</i> ,	Law
Fassett, Harvey Learn, Ph.B.,	(<i>Bucknell</i>), <i>Scottsville, Pa.</i> ,	Physics
Fletcher, Sara Elizabeth,	<i>Erie, Pa.</i> ,	Economics
Flint, Helen Currier, A.B.,	(<i>Mt. Holyoke Coll.</i>),	Greek
	<i>Concord, N. H.</i>	
Foerste, August Frederic,	<i>Dayton, Ohio</i> ,	Chemistry
Forney, Mowbray William,	<i>Brooklyn</i> ,	Mathematics
Fullerton, William James,	<i>North Jackson, Ohio</i> ,	Mech. Eng.
Galindo, Inocencio, Jr.,	<i>Panama, U. S. Col.</i> ,	Economics
Gannon, James Henry, Jr.,	<i>Canton</i> ,	French
Gardner, George Sawyer, Ph.B.,	(<i>Rochester</i>), <i>Rochester</i> ,	Physics.
Gaylord, Carolyn Bell,	<i>Ithaca</i> ,	French
Genung, Lewell, T., A.B.,	<i>Ithaca</i> ,	Botany
George, Marie Elizabeth,	<i>Rome</i> ,	Physics
Gorman, John Truman,	<i>Owego</i> ,	Latin, English, French
Graves, Walter Joseph,	<i>Adrian, Mich.</i> ,	Mathematics
		, Economics
Gray, Leon William,	<i>North Tonawanda</i> ,	French
Green, Isabella Moore, M.S.,	<i>Akron, Ohio</i> ,	Botany
Griffin, Walter Branham, Jr., A.B.,	(<i>Emory Coll.</i>), <i>Oxford, Ga.</i> ,	Latin

Guillen, Salvador Antonio,	<i>Granada, Nicaragua,</i>	Mathematics
Hammond, Ida,	<i>Hammond, Pa.,</i>	Mathematics
Harmon, Herbert William, B.S.,	<i>Geneva,</i>	Botany, Chem., Physics
Harris, Job Frederic Wilson,	<i>Terre Haute, Ind.,</i>	Mech. Eng.
Hart, Clara Avis, B.S.,	<i>New York City,</i>	Mathematics
Harvie, Lelia Jefferson,	<i>Chula, Va.,</i>	Physics
Hartman, Leon Wilson,	<i>Ithaca,</i>	Physics
Hasbrouck, Philip Bevier, B.S., (<i>Rutgers Coll.</i>),	<i>Libertyville,</i>	Physics
Haskell, Reuben L,	<i>Brooklyn,</i>	Law
Hatfield, Lola,	<i>New York City,</i>	Law
Hazeltine, Robert Henry,	<i>Brooklyn,</i>	Drawing, Chemistry
Hendley, Clara Joanna,	<i>Philadelphia, Pa.,</i>	Mathematics
Hicks, Harry Wade,	<i>Ithaca,</i>	French
Hilleary, John Francis,	<i>Cumberland, Md.,</i>	Chemistry
Hirshfield, Edward, B.S., (<i>Rochester Univ.</i>),	<i>Rochester,</i>	Chemistry
Hixon, Kate Burnett,	<i>New York City,</i>	Botany
Hobson, George Pepperell Frost, A.B., (<i>Harvard Univ.</i>),	<i>Brooklyn,</i>	Latin, Mathematics
Hodges, Thomas Edward, A.B., (<i>West Virginia Univ.</i>),	<i>Morgantown, W. Va.</i>	Physics
Hopeman, Antonia Beatrice,	<i>Rochester,</i>	English, Mathematics
Huffman, William Henry, A.B., (<i>Denison Coll.</i>),	<i>Louisville, Ky.</i>	Physics
Ingalls, George Arthur, A.B., (<i>Wesleyan</i>),	<i>Sandy Hill,</i>	Law
Ingalls, Margaret L,	<i>Brooklyn,</i>	German
Jackson, H Gardner,	<i>Lockport,</i>	Chemistry
Kauffman, William Albert, A.B., (<i>Bucknell</i>),	<i>Strode's Mills, Pa.</i>	Physics
King, Ira, B.A., (<i>Wooster Coll.</i>),	<i>Middletown, Ohio,</i>	Chemistry
Kingsley, Carter Robie, B.S.,	<i>Bath,</i>	Physics
Kniel, Sarg Margaret,	<i>Westfield, Mass.,</i>	English
Koster, Ellen de, A.B., (<i>N. Y. Normal</i>),	<i>New York City,</i>	English
Kyle, Thompson Galbraith,	<i>Ithaca,</i>	French, Mathematics
Lamoureux, Elizabeth Lucia,	<i>Rochester,</i>	English
Larco, Alberto Fortunato,	<i>Trugillo, Peru,</i>	Physics
Latané, Lucy Temple,	<i>Baltimore, Md.,</i>	Mathematics
Lathey, Myron Alonzo,	<i>Chicago, Ill.,</i>	Mech. Drawing
		Elocution
Law, Charles Blakslee, B.S., (<i>Amherst</i>),	<i>Rome,</i>	Law
Leftwich, George Jabex, A.B., (<i>Nat'l Normal Univ.</i>),	<i>Aberdeen, Miss.,</i>	Law

Leonard, George Austin, M.E., (<i>Mans. Normal</i>),		
	<i>Troy, Pa.,</i>	Mathematics
Lester, Ordella Amanda,	<i>Brooklyn,</i>	Botany, French
Leyden, Elizabeth, B.Ph., (<i>Syracuse Univ.</i>),	<i>Syracuse,</i>	Latin
Long, William John, A.M., (<i>Central High School</i>),	<i>Philadelphia, Pa.</i>	Law
Longwell, Elizabeth Jacobus,	<i>Penn Yan,</i>	Botany, Physics
Loomis, Helen Augusta,	<i>Stamford,</i>	Greek
Lucke, Charles Edward, B.S., (<i>C.C.N.Y.</i>),	<i>New York City,</i>	Mech. Eng., Mech. Drawing
MacCallum, Mabel Maud,	<i>Rochester,</i>	English, Mathematics
McCarn, Volney Nelson,	<i>Andover,</i>	French
McClellan, William,	<i>Reading, Pa.,</i>	Physics
McColl, Jay Robert, B.S., (<i>Mich. Agr. Coll.</i>),	<i>Knoxville, Tenn.,</i>	Mech. Eng.
McElroy, Andrew J,	<i>Salem,</i>	Economics
McMullin, Frank Van,	<i>Philadelphia, Pa.,</i>	Physics
McNeill, Mary Ann,	<i>Newark, N. J.,</i>	Botany
Marable, Daisy,	<i>Raleigh, N. C.,</i>	Latin
Major, Charles Curtis,	<i>Ithaca,</i>	Physics
Martin, Benjamin Franklin, B.A., (<i>Univ. of Virginia</i>),	<i>Central, S. C.,</i>	English, German
Martin, James Otis,	<i>Ithaca,</i>	French
Massey, Albert Patton,	<i>Brooklyn,</i>	Law
Meysenburg, Robert Carr,	<i>Chicago, Ill.,</i>	Chemistry
Miller, Edwin Francis, Ph.B. (<i>Univ. of Wooster</i>),	<i>Youngstown, Ohio.</i>	Chemistry, Botany
Miller, John Vincent, A.B., (<i>Yale Univ.</i>),	<i>Akron, Ohio,</i>	Mathematics
Mills, Joseph S,	<i>Washington, D. C.,</i>	Chemistry
Moore, Joseph Sterling, M.S., (<i>Miss. Agr. Coll.</i>),	<i>Starkville, Miss.</i>	Botany
Mullen, Loring Blanchard,	<i>Washington, D. C.,</i>	Mathematics
Murray, Annie Kidston, B.A., (<i>Manitoba Coll.</i>),	<i>Brandon, Manitoba.</i>	English, French
Nellis, Frederick Marion,	<i>New York City,</i>	Mathematics
Ness, Helge, B.S., (<i>Ag. & M. Coll. of Texas</i>),	<i>College Station, Tex.</i>	Botany
Odell, Letitia Rebekah,	<i>Erie, Pa.,</i>	Mathematics
Offinger, Martin Henry,	<i>Mt. Vernon,</i>	Physics
Ogle, John Howard,	<i>Belleville, Ill.</i>	French, Mech. Eng.
O'Malley, Charles P,	<i>Scranton, Pa.,</i>	Elocution, Law
Orr, Pauline Van de Graff,	<i>Columbus, Miss.,</i>	German

Otis, Kate Eleanor,	<i>Rochester,</i>	French
Owens, Clarence Julian,	<i>Orangeburg, S. C.,</i>	English, Elocution
Parsons, Robert S, LL.B.,	<i>Binghamton,</i>	Law
Paslay, Minnie, R.A.,	<i>(State College for Girls, Miss.),</i>	Latin
	<i>Columbus, Miss.</i>	
Petty, William James, B S.,	<i>(Alfred Coll.),</i>	Physics, Chemistry
	<i>Bradford, Pa.</i>	
Picolet, Lucien Emile,	<i>Philadelphia, Pa ,</i>	Mech. Eng.
Place, Calvin Fuller,	<i>Groton,</i>	Mathematics
Platt, Francis Wheeler,	<i>Poughkeepsie,</i>	Latin, English
Price, Elizabeth Keith, A.B ,	<i>(Boston (Univ.),</i>	Mathematics
	<i>Springfield, Mass.</i>	
Pyles, Marian,	<i>Brooklyn,</i>	English
Quick, Oscar, A.B.,	<i>(Harvard Univ.), Urbana, Ill.,</i>	Mech. Drawing
Quinn, Matthew David, B.S.,	<i>(St. Lawrence Univ.), Canton,</i>	Law
Ransom, Willard,	<i>Ottawa, Kansas,</i>	Drawing
Rayner, Mary Balmer, B.A.,	<i>(Smith Coll.),</i>	Greek, Latin
	<i>Springfield, Mass.</i>	
Righter, Emma Augusta,	<i>Newark, N. J.,</i>	Physics
Roberts, Eva Duryea,	<i>Columbus, N. J.,</i>	German, French
Robertson, Charles Barr, A.M.,	<i>(Westminster), Indiana, Pa.,</i>	Chem.
Rutzler, John Enoch,	<i>Brooklyn,</i>	Chemistry
Ruyter, Lilie Catherine,	<i>Fair Haven, Vt.,</i>	Botany
Ryan, Albert Henry,	<i>Watertown,</i>	English, Economics, Elocution
Sauerhering, Richard Paul,	<i>Mayville, Wis.,</i>	Chemistry, Mech. Drawing
Scattergood, Ezra Frederick, M.S.,	<i>(Rutgers Coll.),</i>	Mech. Eng.
	<i>Columbus, N. J.</i>	
Schluter, Augustus Gorwood,	<i>Jefferson, Tex.,</i>	Law
Servis, John H, LL.B.,	<i>Ithaca,</i>	Law
Shoemaker, Hess Jennings, A.M.,	<i>(Wofferd Coll.),</i>	Greek, Latin
	<i>Bamberg, S. C.</i>	
Silberhorn, Rosina Josephine,	<i>New York City,</i>	Elocution
Simpson, Louis Wright, B.L.,	<i>Buffalo,</i>	Law
Smalley, Emerson,	<i>New York City,</i>	Physics
Smith, Charlotte, Ph.B.,	<i>Brooklyn,</i>	Mathematics
Spier, Daniel Richard,	<i>Palmyra,</i>	Mathematics
Starkweather, Louise Jennie, A.B.,	<i>(Vassar Coll.)</i>	Latin
	<i>East Orange, N. J.</i>	
Stewart, Alexander M, Jr.,	<i>Indiana, Pa.,</i>	German
Stocker, John Henry, B.S.,	<i>Angola,</i>	Physics
Sweetland, Libbie Jayne,	<i>Dryden,</i>	Botany
Takatsuji, Yoshimaro,	<i>Tokio, Japan,</i>	Physics

Thompson, Anna Ford,	Plainfield, N. J.,	Chemistry
Thomson, William Hargadine,	St. Louis, Mo.,	Physics
Troy, Hugh C, B.S. in Agr.,	Ithaca,	Chemistry
Turner, John Burgess, B.A.,	(Queen's Coll.), Hamilton, Can.,	Botany
Turrill, Sherman Marsh,	Ithaca,	Chemistry, Modelling
Uihlein, Edgar Joen,	Chicago, Ill.,	Chemistry, Math.
Vocke, Carl William,	Ithaca,	Chemistry, Drawing
Vogleson, John Albert,	Los Angeles, Cal.,	Math., German
Wagner, Edward Andrew,	New York City,	Physics, Mech. Eng.
Walsh, Richard Varick DeWitt, A.B.,	(Harvard Univ.), Albany,	Law
Washburn, Lucy Mariana,	San Jose, Cal.,	Botany, French
Watts, Rowland, A.B.,	(Washington Coll.), Westminster, Md,	Physics
Webster, Fannie,	Binghamton,	Mathematics
Weed, Joseph Bartholomew, Jr.,	Newark, N.J.,	Mathematics, English
Weihe, Fritz August, M.E.,	(Lehigh Univ.), Ph.D., (Berlin, Coch's Bridge, Del.,	Physics
Wheeler, Alvin Sawyer, A.B.,	(Beloit), A.M., (Howard), Hector,	Physics
Wheeler, Martha Alice, Ph.B.,	(Univ. of Vermont), New York City,	Greek
White, Kelton Ewing,	St. Louis, Mo.,	German, English
Whyte, Laura Agnes,	Jersey City, N. J.,	Mathematics
Wier, John Stuart, B.Sc.,	(Miss. A. & M. Coll.),	Mathematics
	Agricultural College, Miss.	
Williams, David Percy,	Indianapolis, Ind.,	Elocution, Law
Willis, William,	Flushing,	German
Wilson, Mary Rodifer, B.S.,	Indianapolis, Ind.,	Physics, Chemistry
Woodworth, Lulu,	South Trumansburg,	French, Italian

STUDENTS IN SHORT COURSE IN AGRICULTURE.

WINTER, 1898.

Andrews, Fred Matthias	Pompey
Arnold, Henry Conrad, Jr.	East Bloomfield
Avery, Frank	Phelps
Beattie, Harris	Middletown
Belknap, Julian Montclair	Upper Lisle
Bristol, Alton	Canton
Brown, Adrian Chase	Pharsalia

Buell, William Conklin	<i>Holcomb</i>
Chapman, Clark Everett	<i>Peruville</i>
Chase, Joseph Wesley	<i>Holcomb</i>
Collins, Lester	<i>Moorestown, N. J.</i>
Conklin, Maxwell A.	<i>Etna</i>
Coons, Samuel	<i>Mosley</i>
Copley, Benjamin Franklin	<i>Antwerp</i>
Copley, John Matthew	<i>Shaker Station, Conn.</i>
Cox, William Hampton	<i>Caledonia</i>
Darrow, Arthur Elliott	<i>Saratoga Springs</i>
Deyo, Harry Thompson	<i>Fairfield</i>
Deyo, Oscar Burwell	<i>Salisbury</i>
Dick, James Lenord	<i>Ithaca</i>
Doane, William Thomas	<i>Richville</i>
Douglas, Hurd Bryant	<i>Newfield</i>
Dye, Charles	<i>Marathon</i>
Edinger, William C.	<i>Otisco</i>
Eibert, Henry	<i>Otisco Center</i>
Elliott, James Seymour	<i>Monaca, Pa.</i>
English, Andrew	<i>VanEtten</i>
Evans, John William	<i>Bridgewater</i>
Eveland, Lloyd	<i>Cohocton</i>
Field, Harry Tilden	<i>Oneida</i>
Fuller, Percy Lester	<i>Spragueville</i>
Fundis, Carl James	<i>Richford</i>
Gage, Emmett Dayton	<i>Delanson</i>
Gardinier, William Francis	<i>Delhi</i>
Glazier, Alton Ezra	<i>Dryden</i>
Goings, Windsor Arthur	<i>Spragueville</i>
Grant, Charles A.	<i>Etna</i>
Grunell, Jasper	<i>Sandtown, Del.</i>
Hall, Clarence Alvin	<i>Greenfield</i>
Hall, Dewitt	<i>Ouaquaga</i>
Hall, Warren Washington	<i>Frankfort</i>
Harris, Arthur Fletcher	<i>Upper Red Hook</i>
Harris, George Burnum	<i>Albany</i>
Harris, Leonard Ernest	<i>North Winfield</i>
Ingalls, Stanley	<i>Vananden</i>
Jordan, Henry Bailey	<i>Hampton, Va.</i>
Kennedy, Sidney Ward	<i>Leamington, Ont.</i>
Kent, David Edward	<i>South Easton</i>
Kilman, Anton	<i>Auburn</i>
King, James Henry	<i>Ithaca</i>

Kruse, John Edward	Olean
LaLone, Forrest H.	Gouverneur
Leehan, John	Crossingville, Pa.
Mabee, Eddie James	Spencer
Mallison, Edward W.	Gerkey, Mich.
Marshall, Clelia Henry	Lewis
Mead, Ulysses Wilson	Forestville
Merry, Clyde Sumner	Sharpsville, Pa.
Mickel, Joseph Corbit	West Davenport
Miller, Samuel Case	North Franklin
Olmstead, James Frank	Binghamton
Parkinson, James Brainard	Watertown
Paylor, Travice Edward	Lyons
Peck, Leon Levem	Canisteo
Phanco, Lee Bennett	North East, Pa.
Phillips, Ralph Kay	Ivarea, Pa.
Robinson, Ralph Weston	Saratoga Springs
Salisbury, John Lewis	Phelps
Shant, Marshall Marcus	Avoca
Smith, Clarence	Forestville
Smith, Merritt Evinett	West Camden
Smith, Silas Daniel	Davenport Center
Sperry, Dennis Arthur	Fay
Stevenson, Philo	Canton
Steward, Floyd Harley	Kirk
Stocking, Davis Delanoy	Westogue, Conn.
Thompson, Mulford Conklin	Attlebury
Tucker, Clinton Ezra	Hannibal
Vedder, Harrie Lawyer	Grovenor Corners
Wallace, Frank James	Cobleskill
Walker, Jeesse Albert	Binghamton
Washburne, Charles Lee	Etna
Waterman, Charles Herbert	Savannah
Weir, James Russell	Le Roy
Westcott, James Carl	Franklin
White, Dexter Mason	Hornellsville
Whitman, Robert McCoy	Etna
Whitney, Roland	Broadalbin
Wilkinson, Warren Eugene	Belfast
Wood, Ernest Eugene	Westbury
Worden, Roy	Oswego
Yates, Charles Halsted, A.B.	Utica
Young, Frank Flagler	Hampton Ferry

GENERAL SUMMARY.

Government, Teachers, and Other Officers.

TRUSTEES :—

Ex officio	9	
Elected—By the Board	20	
By the Alumni	10	
Total		39

TEACHERS :—

Professors	51	
Associate Professors	7	
Assistant Professors	25	
Lecturers,	2	
Instructors	57	
Assistants, etc.	54	
Total	196	
Non-Resident Lecturers	29	
Whole number of Teachers		225

PREACHERS 30

LIBRARY STAFF 14

OTHER OFFICERS 17

Students.

GRADUATE DEPARTMENT :—

Fellows	22	
Scholars	19	
Graduates, candidates for Advanced Degrees	152	
Graduates, not candidates for Degrees	14	
Total, deducting for names counted twice		166

GRADUATE STUDENTS IN UNDERGRADUATE COURSES 84

ACADEMIC DEPARTMENT:—

Senior Class	127
Junior Class	121
Sophomore Class	164
Freshman Class	171
Medical Preparatory students	10
Special Students	31
Total	624

COLLEGE OF LAW:—

Senior Class	112
Junior Class	18
Optional Students	3
First Year Class	104
Special Students	9
Total	246

COLLEGE OF AGRICULTURE:—

Senior Class	12
Junior Class	4
Sophomore Class	8
Freshman Class	32
Special Students	28
Total	84

STATE COLLEGE OF VETERINARY MEDICINE:—

Third Year Class	7
Second Year Class	5
First Year Class	4
Total	16

COLLEGE OF ARCHITECTURE:—

Senior Class	6
Junior Class	10
Sophomore Class	18
Freshman Class	18
Special Student	1
Total	53

COLLEGE OF CIVIL ENGINEERING:—

Senior Class	17
Junior Class	26
Sophomore Class	56
Freshman Class	80
Total	179

SIBLEY COLLEGE OF MECHANICAL ENGINEERING:—

Senior Class	57
Junior Class	90
Sophomore Class	122
Freshman Class	182
Special Students	16
Total	<u>467</u>
Whole Number of Students	1835

SUMMER SCHOOL:—

General and Technical Courses	171
Law Courses	23
Total, deducting for names counted twice	<u>192</u>

Students in Short Course in Agriculture (Winter, 1898) 93

Summary by States.

New York	1158	North Carolina	6	Florida	1
Pennsylvania	119	Montana	6	Mississippi	1
Illinois	81	California	5	Oklahoma	1
Ohio	63	Nebraska	5	South Dakota	1
Massachusetts	50	South Carolina	5	Canada	21
New Jersey	49	Georgia	4	Mexico	4
Connecticut	27	Kansas	4	Cuba	3
Missouri	23	Tennessee	4	Japan	3
Michigan	21	Louisiana	4	Australia	1
Dist. of Columbia	19	North Dakota	3	Brazil	1
Iowa	19	Rhode Island	3	China	1
Indiana	15	Utah	3	Costa Rico	1
Maine	14	Vermont	3	Nicaragua	1
Virginia	12	Washington	3	Norway	1
Wisconsin	11	West Virginia	3	Peru	1
Maryland	10	New Hampshire	2	Porto Rico	1
Texas	9	Oregon	2	Scotland	1
Minnesota	7	Kentucky	2	Spain	1
Colorado	6	Alabama	1	Turkey	1
Delaware	6	Arizona	1	Wales	1
Total					<u>1835</u>

THE TWENTY-NINTH ANNUAL COMMENCEMENT.

JUNE 17, 1897.

DEGREES CONFERRED.

FIRST DEGREES.

BACHELORS OF ARTS.

Don William Robinson Almy,	Minnie Helen Kelsey,
Claude Towne Benjamin,	Helen May Knox,
Elizabeth Hickman du Bois,	Alice Lattin,
Charles Edward Burroughs,	Clement Alexander Lawler,
Edward Neher Carpenter,	Paul Smith Livermore,
Mabel Adelaide Clark,	Newell Lyon,
Eleanor Cecelia Clarke,	Charles Leighton McGavern,
Maurice Francis Connolly,	Casbar Hagop Mallarian, A.B.,
George Matthew Dutcher,	Walter Henry Ottman,
James McMartin Evans,	Charles Wesley Darwin Parsons,
Richard Malcolm Evans,	Lewis Denzil Roberts,
Florence Meritt Foster,	Mabel Virginia Root,
Lewell T Genung,	George Orin Schryver,
Gertrude Ella Hall,	David Craig Scott,
Florence Belle Harris,	Nan Gilbert Seymour,
Vesta Vernon Heywood,	Byron Houghton Stebbins,
Jessica May Hitchcock,	Edgar Roscoe Stillman,
John Albert Hobbie,	Herbert Addison Taylor,
Monmouth Hazelitt Ingersoll,	Herman John Westwood,
	Letitia Eloise Young.

BACHELORS OF PHILOSOPHY.

Bessie Avery,	Rose Eleanor Mix,
Charles Henry Bartlett,	Hamilton Byron Moore,
Anne Louise Bass,	Isadore Gilbert Mudge,

Lulu Genung Birch,
 Nannie Young Burke,
 Theodore Wood Cady,
 Francis Coe Collison,
 Charles Edwin Cooke,
 Bessie Dean Cooper,
 Robert Davidson,
 Jacob Henry Dealy,
 Janie E Dean,
 Lillian Myra Dodge,
 Iowa Marie Dorr,
 Irwin Esmond,
 Susan Jane Evans,
 Mary Josephine Genung,
 Mary Aurilla Godfrey,
 Sidney Morse Hauptman,
 Willard Eugene Hotchkiss,
 Charles Firenze Kittredge,
 Lulu Lauren,
 Austin John McMahon,

Ruth Augusta Nelson,
 Leslie Richard Palmer,
 Julia Lucy Pearson,
 George William Peck, Jr.,
 Paul Skeels Peirce,
 Jessie May Pierson,
 Elizabeth Meserole Rhodes,
 Clara Gertrude Rowley,
 Augustus Wesley Senior,
 Robert Morris Snow,
 Lillian Constance Swift,
 Gertrude Elizabeth Tifft,
 Harry Ransom Tobey,
 Harry Clark VanBuskirk,
 George Henry Vandewalker,
 Anna Louise Wagenschuetz,
 Lee Barker Walton,
 Oreola Williams,
 Oscar Monroe Wolff,
 William Truman Yale,

May Cleveland Yeomans.

IN HISTORY AND POLITICAL SCIENCE.

William Butler Chriswell,

Ida Lucena Hull.

BACHELORS OF LETTERS.

Ellis Leeds Aldrich,
 Byron Edmund Brooks,
 Frederick Diamond Colson,
 Edward Andrews Crawford,
 Harry H Crum,
 Lillian de Groff,
 Robert Hutchins Haskell,
 Jervis Langdon,

Carrie Alice Laurence,
 Charles Jacob Mandler,
 Mark M Odell,
 Harry Egdon Rowley,
 Justin Adam Seubert,
 Stephen Fish Sherman, Jr.,
 Ernest Osborn Storer,
 Arthur Innis Strang.

BACHELORS OF SCIENCE.

Centennial Harry Benedict,
 John McWilliams Berry,
 Karl Kurt Bosse,
 Emma Bowers,

Lena Elizabeth Hill,
 William Thompson Howell,
 Theodore Gilbert Hubbard,
 Walter Schon Lenk,

Winifred Mary Bristol,
Sara Winifred Brown,
George Adam Charlton,
Charles Douglas Clinton,
Robert Matthew Codd,
John Dickinson Curran,
Lionel Chester Darlington,
Emily Dunning,
Clinton Goodloe Edgar,
Louis Agassiz Fuertes,
Lucius Chipman Fuller,
Harry Delbert Greenwood,
Anne Elizabeth Haworth,

Millard Caleb Marsh,
Harry Bainbridge Mersereau,
Jessie Milliken,
Charles Kenyon Moulton,
Sara Teresa Oliver,
Louis Siff,
Mabel Simis,
Charles Hendee Smith,
Robert Loring Speed,
Eunice Stebbins,
Jesse Moore Talmadge,
Sherburne Frost Taylor,
Mary Rodifer Wilson.

BACHELORS OF LAW.

Frank Otto Affeld, Jr.,
Andrew Wilson Allen,
William Louis Ament,
George Thomas Armstrong,
Harry Newell Avery, Ph.B.,
Burt Titus Baker,
Joseph William Beacham, Jr.,
George Bryant Becker,
Hunter Loomis Betts,
Ezra Cornell Blair,
Francis Halsey Boland, M.E., M.M.E.,
Irving Gilbert Botsford, A.B.,
Arthur W Brown,
Wallace Everett Brown,
Spencer Brownell,
Theodore Keller Bryant,
Oliver Dudley Burden, Ph.B.,
William Horatio Burr,
Justin David Call,
John Livingston Campbell,
Parley P Christensen,
Paul Kendall Clymer,
Raymond Lynn Coffin, A.B.,
Oren Alexander Coons,
James Edwin Coursen,
Harley Nutting Crosby, B.L.,

Mandeville Cornelius Jacobus,
Nelson Lester Keach,
Joel Leslie Keator,
Frances Alice Kellor,
George Wilson La Pointe, Jr.,
Joshua Roger Lewis, C.E.,
Carleton Bailey Livermore,
Urbane Chauncey Lyons,
Ernest DeLos Magee, A.B.,
Cleveland DeVere Manville,
Freeman L. Morris, Ph.B.,
Maurice Morrison,
Joseph Mount,
James Joseph Oconnor,
Alexander Otis,
Leslie Richard Palmer,
Chapin Cavanaugh Perry,
James Henry Porter, Jr., A.B.,
Charles Stanley Price,
Walter Murray Provine,
Edward Donnelly Redding,
John Bunn Richards, Ph.B.,
George Alfred Rogers,
Philip Adams Rorty,
John Henderson Servis,
Martin Alexander Seward,

Roland Lucius Davis,	John B Skinner,
Walter Henry Edson, B.L.,	John Nelson Stockwell, Jr., B.L.,
Charles Gray Fairchild,	William Story, Jr., Ph.B.,
Fred Henry Farr,	Homer Strong,
Mortimer Alexander Federspiel,	Eugene Meyering Strouss,
Ph.B., Ph.D.,	Charles Brown Swartwood,
Edward Hubbard Fitch, Jr.,	Robert Julius Thorne,
Bradley Fuller,	Waldo Franklin Tobey, B.L.,
Charles Merrill Gambee,	Henry Mulford Tomlinson,
Darwin Curtis Gano,	Daniel Hanmer Wells,
Harry Horace Hammond,	William Arthur Whitehead,
William Harvest Harkness,	Charles Henry Wiborg,
Francis Marks Hugo, M.A., LL.B.,	Roy Porter Wilcox,
Norman Hutchinson,	Frank LeMoyne Wilson,
Willard Cartright Jackson, B.L.,	George Glenn Worden.

BACHELORS OF THE SCIENCE OF AGRICULTURE.

William Clark Bell,	George Nieman Lauman,
Horace Greeley Carrell,	Herbert Warren Rawson,
James Wheaton Clark,	Ernest Walker,
Robert Ludwig Junghanns,	Alanson Phelps Wyman.

DOCTORS OF VETERINARY MEDICINE.

Walter Emerson Howe, V.S.,	Herman Reeve Ryder, V.S.,
Walter Edward Weihe.	

BACHELORS OF ARCHITECTURE.

Edwin Skillinger Cooper,	Edward Vermilye Rockwood,
Seth Morton Higby,	Ernest Allen Van Vleck,
Warren Johnson, M.E.,	Walter Henry Whitlock,
Linn Kinne,	William Ward Williams.

CIVIL ENGINEERS.

Elroy Theodore Agate,	John Hayes,
Frederick Hague Avery,	Lee Highly, B.S. in C.E.,
Homer Gage Balcom,	Curtis Hill, B.S. in C.E.,
Fred Asa Barnes,	John Clayton Hoyt,
Homer Cary Brown,	Ira Welch McConnell,
Joseph P Carlin, B.S. in C.E.,	Ray Sutherland Palmer,
Alger Adams Conger,	Gilbert Powers Ritter,

Homer Frank Cox,	Percival Strang,
Robert Peel Garrett, B.S. in C.E.,	Benjamin Ellsworth Tilton,
John Michael Haag,	Walter Ensworth Truesdell,
Andrew Henry Haight, B.S.,	Emile Alfred VanCauteren,
Charles Frazine Hamilton,	Norris Mihill Works.

MECHANICAL ENGINEERS.

Charles Anderson Alexander,	Ward Sawtelle Jacobs, Ph.B.,
Benjamin Talbot Babbitt,	Sidney Grant Jenks,
William Nichols Barnard,	Charles Leo Johnson,
Clifford Ross Buck,	Charles Frederick Kellogg,
Frank Ross Chambers, Jr.,	Walter Kelsey,
Benjamin Stanton Cottrell,	Harold Lee, Ph.B.,
Max Dercum,	Frederick von Duser Longacre,
Herman Diederichs,	Walter Richard Metz,
Herbert Thomas Dyett,	Enrique Keutsch Müller,
Faun William Freeborn,	Frederick Noe,
Arthur Sellers Garrett,	Ysidro Reyna,
George Frederick Gebhardt,	Fred Thomas Richards,
Le Roy Worden Graham,	Edward Mansfield Richardson,
Andrew Michael Guenther,	David Roberts Richie,
Miles Tracy Hand, A.B.,	Ralph Frederic Rogan,
Raymer Todd Hanford,	Andrew Martin Schreuder,
Albert Richard Hatfield,	Bernhard Albert Sinn,
William Guy Hawley,	Foster Cornell Slade,
Alfred George Heggem.	Edward Orton Spillman,
Charles Martin Henrotin,	William Stewart Stothoff,
Harry Louis Hepburn,	Kenneth Emmons Stuart,
Frederick Davis Herbert,	Harry Lester Terwilliger,
William John Hibbert,	William Henry Wardwell,
Harold Herbert Hill,	Thomas Desmond Weaver,
Converse Francis Horne,	Perley Smith Wilcox,
William Wiley Hubbard,	Julius Isaac Wile,
John Hulett,	John Paul Young, B.S. in Arch.,
Alfred Hurlburt, A.B.,	Charles Myrtle Younglove.

IN ELECTRICAL ENGINEERING.

Leo Ammann,	Charles Benham Larzelere,
Frank Colson Andrews,	George Harding Lewis,
William Jacob Auburn,	Lester Hoff Lewis,
George Harry Barbour, Ph.B.,	Paul Hopkins Little,

Thomas Archie Bennett, B.S.,	Hugh Herbert McClellan,
Morgan Evan Bonyun,	Robert McClenathen,
Robert Emanuel Brandeis,	Michael Joseph Milmoë,
Burton Hotchkiss Brooks,	Herbert Comly Mode,
Raymond Burnham,	Harvey Edward Molé,
Frederick Cutts, A.B.,	Charles Terre Mordock,
Herbert Lane Daniels,	Chester Davis Moses,
Winterton James Day,	Herbert Gouverneur Ogden,
George Frederwick DeWein,	Henry Alexander Otterson,
Oscar Erisman,	Homer Jay Parker,
Jacob Freund,	Walter Chandler Pearce,
Harry Rutherford Gabay,	Harold Childs Pease,
Clarence Wallace Gail,	William Sherwood Porter, A.B.,
Kenneth Graham Glover,	Robert Llewellyn Reynolds, B.S.,
John Charles William Greth,	William Holliday Rose,
Adalbert Harding, A.B.,	Edward Price Rowlands,
John Lyell Harper,	Frederick Louis Schraft,
Ernest Charles Hasselfeldt,	Robert Hartley Sherwood, Jr.,
Fred Henry Hayn,	Oliver Shiras,
Charles Jones Heilman,	William Horace Squire,
Fred William Heitkamp,	Byron Stevens,
John Henry Hill,	John Joseph Swann,
Joseph Ernest Hodgson,	Lewis Leeds Tatum,
Benjamin Kent Hough,	John Hawley Taussig,
William Simmons Hovey,	Lyndon Bigelow Taylor,
Wilbur Gregory Hudson, B.S.,	Harry Willard Tobey,
John Ingles, C.E.,	Arthur Christian Walther,
Eugene Whittaker King,	Charles Vernon Wanzer,
Frederick Nash Kollock, Jr.,	George LaRue Weller,
Wellington W Kuntz,	J Ralph Wilbur,
Howard Cook Woodbridge.	

ADVANCED DEGREES.

MASTERS OF ARTS.

Grace Patten Conant, A.B.,	Jessica Beatrice Marshall, Ph.B.,
Manning William Doherty, B.S.	Wilhelm Miller, A.B.,
in Agr.,	Benton Sullivan Monroe, A.B.,
William Scott Ferguson, B.A.,	Hallie Schoedde Poole, A.B.,
William Grant Goodwin, B.L., M.	Julia Vaulx, A.B.,
S., A.B.,	John Dorsey Wolcott, A.B., A.M.

MASTERS OF LAW.

Thomas Francis Fennell, LL.B.,	Louis Hiram Kilbourne, LL.B.,
Joseph Alfred Greene, LL.B.,	Robert Harper Murray, A.B., LL.B.,
George Whitworth Hoyt, LL.B.,	William James Schultz, LL.B.,
Fred Bush Skinner, A.B., LL.B.	

MASTERS OF SCIENCE IN AGRICULTURE.

Leroy Anderson, B.S.,	Fred K Luke, B.S., M.S.,
Harris Perley Gould, B.S.,	Jared Van Wagenen, Jr., B.S.
Maurice Grenville Kains, B.S.,	in Agr.
B.S. in Agr.,	

MASTER OF SCIENCE IN ARCHITECTURE.

Milton Eugene Harpster, B.S. in Arch.

MASTER OF CIVIL ENGINEERING.

Elmer James McCaustland, B.C.E., C. E.

MASTERS OF MECHANICAL ENGINEERING.

Louis Lyon Brinsmade, B.S. in	Nicholas Cooke Cushing, M.E.,
M.E.,	George L Hoxie, M.E.,
Richard Edward Chandler, M.E.,	Robert A McKee, M.E.,
George Burton Preston, M.E.	

DOCTORS OF SCIENCE.

Walter Otto Amsler, B.S., M.E.,	Frederick William Phisterer,
M.M.E.	M.E., M.M.E.
Ernest Fox Nichols, B.S., M.S.	

DOCTORS OF PHILOSOPHY.

Anna Maude Bowen, Ph.B.,	Arthur Lee Foley, A.B., A.M.,
Emile Monnin Chamot, B.S.,	Alexander Meiklejohn, A.B., A.M.,
Clements D Child, A.B.,	Everett Ward Olmsted, Ph.B.,
Fred Stephen Crum, B.L., M.L.,	John Burton Phillips, A.B., A.M.,
Warren Washburn Florer, A.B.,	Oscar Milton Stewart, Ph.B.,
Thomas Leonard Watson, B.S., M.S.	

CERTIFICATES AWARDED.

Teachers' Certificates :

Charles Edwin Cooke,	Mathematics.
Anne Elizabeth Haworth,	Mathematics.
Lulu Lauren,	Germanic and Romance Languages.
Hamilton Byron Moore,	English.
Walter Henry Ottman,	History.
Charles Wesley Darwin Parsons,	Physics.
Paul Skeels Peirce,	History.
Elizabeth Meserole Rhodes,	English.
Augustus Wesley Senior,	English.
Harry Clark Van Buskirk,	Mathematics.

For Proficiency in Military Science :

Clinton Goodloe Edgar,	Paul Skeele Peirce,
Norman Hutchinson,	Bernhard Albert Sinn,
Charles Leo Johnson,	Robert Loring Speed,
George Nieman Lauman,	John Joseph Swann,
J Ralph Wilbur.	

For Medical Preparatory Course :

Emily Dunning,	Lewell T Genung.
----------------	------------------

PRIZES AWARDED.

The Sibley Prizes in Mechanic Arts :

1st Prize,	Herman Diederichs.
2d Prize,	Ernest Tompkins.
3d Prize,	Adelbert Harding, A.B.
4th Prize,	Clarence Metz Eshelman.
5th Prize,	Jesse Edmond Barney.

The H. K. White Prizes in Veterinary Science :

Walter Emerson Howe, V.S.	Herman Reeve Ryder, V.S.
---------------------------	--------------------------

The Mrs. A. S. Barnes Shakespeare Prize :

Edwin Mims, B.A., M.A.

The Woodford Prize in Oratory :

Daniel Hanmer Wells.

The Eighty-Six Memorial Prize in Declamation :

Harry Cleveland Allen.

Ninety-Four Memorial Prize in Debate :

Daniel Hanmer Wells.

The Fuertes Medals :

Erasmus Darwin Preston, M.CE..
Gilbert Powers Ritter.

The Thesis Prize in the College of Law :

Ernest De Los Magee, A.B.

SPECIAL MENTION.

Awarded for special study with marked proficiency in particular lines during the last two years of the course.

Bessie Avery,	Romance Languages
Byron Edmund Brooks,	History
Edward Neher Carpenter,	English
Charles Edwin Cooke,	Mathematics
Harry H Crum,	Economics
Lowa Marie Dorr,	Romance Languages
George Matthew Dutcher,	History
Harry Delbert Greenwood,	Chemistry
Anne Elizabeth Haworth,	Mathematics
Vesta Vernon Heywood,	Greek
Ida Lucena Hull,	History
Lulu Lauren,	Germanic and Romance Languages
Jessie Milliken,	Botany
Hamilton Byron Moore,	English
Walter Henry Ottman,	History
Charles Wesley Darwin Parsons,	Physics
Paul Skeels Peirce,	History
Jessie May Pierson,	Romance Languages
Elizabeth Meserole Rhodes,	English Literature
Augustus Wesley Senior,	English
Nau Gilbert Seymour,	Experimental Psychology
Louis Siff,	Mathematics
Sherburne Frost Taylor,	Chemistry
Harry Clark Van Buskirk,	Mathematics
Anna Louise Wagenschuetz,	German
Lee Barker Walton,	Entomology
Letitia Eloise Young,	Greek

ASSOCIATE ALUMNI.

By the charter of the University the graduates are entitled to elect two of the Board of Trustees each year. At a meeting called for the purpose, and held on Wednesday, June 26, 1872, the day preceding the Annual Commencement, representatives of all the classes that had graduated being present, the following organization was effected :

ARTICLES OF ASSOCIATION AS ADOPTED JUNE 26, 1872, AND AFTERWARDS AMENDED.

I. The Alumni of Cornell University hereby constitute themselves an association to be known by the name of the Associate Alumni of Cornell University.

II. The object of this association is declared to be to promote in every proper way the interest of the University, and to foster among the graduates a sentiment of regard for each other, and attachment to their Alma Mater.

III. All graduates of this University, who, by their diplomas, are entitled electors of the University, are members of this association. All members of the Faculty of this University are honorary members of this association.

IV. The officers of this association shall consist of (1) a president ; (2) vice-presidents to be elected as follows : one vice-president from the classes numbered from '69 to '74 inclusive, and one from each succeeding group of five classes, provided that when the last group shall number three classes it shall thereafter be entitled to a vice-president ; (3) a corresponding secretary ; (4) a recording secretary ; (5) a treasurer.

V. This association shall meet annually on the day preceding Commencement, at such hour as the executive committee shall determine.

VI. Any proposition to alter or amend these articles of association must be made at a regular meeting and have the assent of two-thirds of the members present.

By an amendment to the charter of the University, passed May 15, 1883, permitting members of the Alumni, not present in person, to vote by written ballot at the annual election of Trustees, the Treasurer of the University is required to keep " a registry of the signature and address of each alumnus." It is therefore important that each alumnus keep the Treasurer of the University informed of his full address

(in cities, street and number) and notify him immediately of any change.

The following ordinance was adopted by the Board of Trustees, October 24, 1888: All graduates of the first degree, in any of the departments of Cornell University, and all persons who have been admitted to any degree higher than the first in said University shall be alumni of said University, and as such be entitled to vote for Alumni trustees under and in pursuance of the provisions contained in Chapter 763 of the Laws of New York passed in 1867.

OFFICERS FOR 1897-98.

President—G. R. Van De Water, '74.

Vice-Presidents—A. W. Clinton, '72; C. S. Harmon, '75; Ida C. Kerr, '84; L. Pearson, '88; C. D. Bostwick, '92.

Corresponding Secretary—G. L. Burr, '81.

Recording Secretary—G. W. Harris, '73.

Treasurer—H. M. Hibbard, '74.

Executive Committee—G. R. Van De Water, G. L. Burr, G. W. Harris, H. M. Hibbard, *ex officio*; and C. H. Hull, '86; C. H. Blood, '88.

Auditing Committee—J. H. Comstock, '74; S. B. Turner, '80; C. E. Treman, '88.

Canvassing Board for Trustee Election—C. L. Crandall, '72; E. G. Merritt, '86; remaining members to be appointed as directed in the by-laws.

OFFICERS OF LOCAL ALUMNI ASSOCIATIONS.

(As last reported.)

CENTRAL NEW YORK ASSOCIATION.

President—Hamilton S. White, '77, Syracuse, N. Y.

Secretary—Percy Clisdell, Corning, N. Y.

ITHACA ASSOCIATION.

Secretary—D. F. Van Vleet, '77.

MICHIGAN ASSOCIATION.

President—C. S. Cobb, '77, Eaton Rapids, Mich.

Secretary—Delos D. Jayne, '81, Orchard Lake, Mich.

MINNESOTA ASSOCIATION.

President—W. E. Bramhall, '77.

Secretary—O. L. Taylor, '81, St. Paul, Minn.

NEBRASKA ASSOCIATION.

President—A. C. Wakely, '79.

Secretary—Frank Irvine, '80, Omaha, Neb.

NEW ENGLAND ASSOCIATION.

President—C. E. Becker, '88, 166 Devonshire St., Boston, Mass.

Secretary— ——— ———

NEW YORK ASSOCIATION.

President—Henry W. Sackett, '75.

Secretary—E. C. Bailey, '91, 132 Nassau St., New York City.

NORTHEASTERN PENNSYLVANIA ASSOCIATION.

President—Geo. B. Davidson, '84, 512 Spruce St., Scranton, Pa.

Secretary—G. G. Brooks, '94, Scranton, Pa.

PHILADELPHIA ASSOCIATION.

President—J. M. Dodge, Nicetown, Philadelphia, Pa.

Secretary—G. W. Borton, Fidelity Bldg., Philadelphia, Pa.

SOUTHWESTERN ASSOCIATION.

President—L. G. Boies, '73, Larned, Kan.

Secretary—E. A. Wagener, '76, 116 West 6th St., Topeka, Kan.

WASHINGTON ASSOCIATION.

President—L. O. Howard, '77, 1336 30th St., Washington, D. C.

Secretary—R. A. Pearson, '94, U. S. Dept. of Agr., Washington, D. C.

WESTERN NEW YORK ASSOCIATION.

President—W. B. Hoyt, '81, Buffalo, N. Y.

Secretary—J. A. Hamilton, '92, 310 Real Estate Exchange, Buffalo, N. Y.

ROCKY MOUNTAIN ASSOCIATION.

President—A. L. Hawley, '86.

Secretary—A. S. Proctor, 1728 Lawrence St., Denver, Col.

CHICAGO ASSOCIATION.

President—L. E. Ehle, '90.

Secretary—F. G. Fisher, '90, 823 Rookery, Chicago, Ill.

PACIFIC NORTHWEST ASSOCIATION.

President—J. A. Rea, '69, Olympia, Wash.

Secretary—Frank D. Nash, '72, Tacoma, Wash.

EASTERN NEW YORK ASSOCIATION.

President—A. J. Wing, '80.

Secretary—J. B. Easton, '91, 10 Ten Broeck St., Albany, N. Y.

ROCHESTER ASSOCIATION.

President—G. A. Benton, '71.

Secretary—E. P. Allen, '92, 784 Powers Bldg., Rochester, N. Y.

SOUTHERN TIER ASSOCIATION.

President—Harry Hoffman, '83.

Secretary—George McCann, '86, 100 Lake St., Elmira, N. Y.

PITTSBURG ASSOCIATION.

President—Charles M. Thorp, '84.

Secretary—Thomas Turnbull, 314 Western Ave., Allegheny, Pa.

BINGHAMTON ASSOCIATION.

President—A. W. Clinton, '72.

Secretary—R. A. Gunnison, '96, 74 Exchange St., Binghamton, N. Y.

THE CORNELL WOMAN : GRADUATE ASSOCIATION.

President—Anna Botsford Comstock, '85, Ithaca, N. Y.

Secretary—Agnes L. Tierney, '95.

Meetings at Ithaca annually on afternoon of Alumni Day.

TOLEDO ALUMNI ASSOCIATION.

President—C. S. Davis, '89, Dorst Block, Toledo, O.

Secretary—W. A. Stevens, '90, Nasby Trust Building, Toledo, O.

THE CORNELL CLUB OF ST. LOUIS.

President—Willi Brown, '73.

Secretary—George J. Tansey, '88, 412 Commercial Building, St. Louis, Mo.

ALUMNI BUREAU.

The Alumni Association voted at its meeting in June, 1890, to establish in the University an Alumni Bureau, and at the annual meeting in June, 1896, incorporated in the By-laws of the Association the following provision. "There is established an Alumni Bureau for the promotion of the interests of graduates or other ex-students of the University in securing positions. The Alumni Bureau shall be under the general oversight of the executive committee of the Association and the special charge of the Registrar of the University." In accordance with this resolution a permanent Bureau has been constituted where names are registered with a record of the position desired and of the studies and experience of those who wish situations. To render this organization in the highest degree efficient, it is desired that all interested should communicate as early in the year as possible to the Registrar of the University information of vacancies which may occur in

public positions which graduates are prepared to fill. Former students can thus render a constant service to the University, and to successive classes as they graduate. A list of such situations is kept and is available for consultation by all students. Blank forms will be furnished on application to the Registrar.

In accordance with the vote of the Alumni Association, the annual report of the Alumni Trustees, containing a review of the year and such matters affecting the University as interest the Alumni, is sent to all members whose annual dues have been paid. Any Alumnus who shall pay to the Treasurer ten dollars at one time is thereafter exempt from the payment of annual dues. Remittances may be made to the order of the Corresponding Secretary. The last report is now ready for distribution.

The Corresponding Secretary is required to keep a list of the addresses of graduates, and it is requested that he may be notified of changes in the address of any member.

CLASS MEMORIALS.

(As reported.)

CLASS OF 1872 :—Seventy-two Elm Trees bordering President's Avenue and northern half of East Avenue.

CLASS OF 1873 :—Drinking Fountain in front of McGraw Hall.

CLASS OF 1879 :—Bronze Tablet containing Bust of Bayard Taylor in Sage Chapel.

CLASS OF 1883 :—Portrait of Professor William Dexter Wilson, D.D., LL.D., in University Library.

CLASS OF 1884 :—Portrait of Professor Charles Chauncey Shackford A.M., in University Library.

CLASS OF 1885 :—Statue of Augustus Caesar in the Museum of Casts.

CLASS OF 1886 :—The '86 Memorial Prize in Declamation. *See University Register*, p. 50.

CLASS OF 1890 :—Cornell Boat House.

CLASS OF 1891 :—The '91 Memorial Bed for Sick Students in the Ithaca Hospital.

CLASS OF 1892 :—Witherbee Memorial Club House at Percy Field.

CLASS OF 1893 :—Interscholastic League Prizes in Athletics.

CLASS OF 1894 :—The '94 Memorial Prize in Debate. *See University Register*, p. 51.

CLASS OF 1895 :—The Henley Shell.

CLASS OF 1896 :—Gift toward the establishment of an Alumni Hall.

CLASS OF 1897 :—Gift toward the establishment of an Alumni Hall.

SPECIAL NOTICE.

THE NEW YORK STATE COLLEGE OF FORESTRY.

By an act of the Legislature which received the approval of the Governor March 26, 1898, the Trustees of Cornell University have been enabled to found a college of forestry. The New York State College of Forestry was formally established by action of the Board of Trustees on April 14, 1898. It is provided by act of the Legislature, that the Trustees of the University shall acquire a tract of 30,000 acres of land in the Adirondack forests, and that "the university shall have the title, possession, management and control of such land, and by its board of trustees through the aforesaid college of forestry shall conduct upon said land such experiments in forestry as it may deem most advantageous to the interests of the state and the advancement of the science of forestry, and may plant, raise, cut and sell timber at such times, of such species and quantities and in such manner, as it may deem best, with a view to obtaining and imparting knowledge concerning the scientific management and use of forests, their regulation and administration, the production, harvesting and reproduction of wood crops and earning a revenue therefrom." The primary object of the instruction given will be to produce business managers of forests, equipped with the technical knowledge necessary to carry on practical forest management. A full four-year course will be given at Ithaca, supplemented by six-week summer courses in the Adirondack Demonstration Area, and inspection tours during the junior and senior years.

There will also be provided shorter courses which may be elected by students of political economy, engineering, chemical technology, and by prospective owners of woodlands and others who as a matter of general education may desire to have a cursory acquaintance with the various sides of the subject.

Further particulars concerning the New York State College of Forestry will be given in later publications of the University, which may be had on application to the

REGISTRAR,

Cornell University,

Ithaca, N. Y.

SPECIAL NOTICE.

THE NEW MEDICAL COLLEGE.

Through the munificence of a friend of medical education the Trustees of Cornell University have been enabled to carry out a desire they had long entertained of founding a medical department. The Cornell University Medical College was formally established by action of the Board of Trustees, on April 14, 1898. The full four-years' course is given in New York City (414 East 26th Street), but the first two years of the course are also given at Ithaca, where it may be taken by men students, and where alone it can be taken by women students (for whom a home is provided in Sage College). Both men and women students must take the last two years of the course in New York City. While it is not necessary, it is highly advantageous, that students entering upon the study of medicine should have had a college or university training in the liberal arts and sciences; and for the benefit of such it has been arranged that students in the Academic Department of Cornell University may elect in the Medical College certain studies, thereby shortening the time required for taking both the A.B. and M.D. degrees.

Further particulars concerning the Cornell University Medical College will be given in later publications of the University, and a special pamphlet giving detailed information concerning it may be had on application to the

DEAN, CORNELL UNIVERSITY MEDICAL COLLEGE,

414 East 26th Street, NEW YORK CITY.

INDEX.

- Academic Department, 62.
admission to, 33, 67.
Faculty of, 62.
- Admission, 29-42.
as special students, 40, 159, 177,
200, 214, 227.
on examination, 29, 37.
on Regent's Diploma, 38.
on certificate, 39.
to advanced standing, 41, 159.
- Advanced degrees, 58.
- Advanced standing, admission to, 41,
159.
- Agriculture, college of, 171.
admission to, 35, 174.
animal industry, 178.
course of study in, 176.
courses in, 178.
expenses in, 44, 182.
Faculty of, 171.
fees in, 44, 182.
museum of, 173.
short winter course in, 185.
special course in, 40, 177.
- Agricultural Experiment Station, 178,
183.
council of, 183.
- Algebra, 32, 35, 37.
- Alumni, Association of, 332.
- Alumni Bureau, 335.
- Anatomical Methods and Human
Anatomy, 143.
courses in, 144.
- Anatomy, 143, 193.
- Architecture, College of, 200.
admission to, 35, 200.
course of study in, 202.
courses in, 204.
Faculty of, 200.
library of, 202.
museum of, 202.
naval, 227, 233, 237.
- Art, Industrial, 225.
- Arts and Sciences, 62.
Faculty of, 62.
- Art, history of, 71.
courses in, 72.
- Astronomy, 113, 212, 218.
courses in, 119, 218.
laboratory of, 212.
- Athletics, 153.
association, 28.
- Bacteriology, 198.
- Barnes Hall, 244.
reading room of, 244.
- Bibliography, course in, 242.
- Botany, 134, 251.
courses in, 135, 251.
laboratories of, 134.
- Calendar, 4-5.
- Certificates, admission on, 39.
- Chemistry, 125, 250.
agricultural, 127, 131.
analytical, 127.
assaying, 128.
courses in, 130, 250.
inorganic, 125, 130.
laboratories of, 128.
library of, 129.
organic, 126, 131.
physical, 126, 132.
- Christian Association, 244.
reading room, 244.
- Civil Engineering, college of, 206.
admission to, 35, 214.
course of study in, 214.
courses in, 216.
degrees conferred by, 220.
Faculty of, 206.
graduate courses in, 60, 220.
laboratories of, 210.
lectures in, 207.
museums, 212.
prizes in, 220.
- Classical Archæology, 71.
courses in, 72.
museums, 72.
- Commencement, 1897, 323.
- Comparative Philology, 73, 245.
courses in, 73, 245.
- Council, athletic, 28.
- Dairy building, 172.
- Dairy husbandry, 177.
- Debate, 93, 94.
- Degrees, 45, 60, 67, 220.
fees for, 44.
- Departments, 14.
- Diploma, Regents', 38.
- Doctor of Philosophy, degree of, 60.
- Drill, military, 154.

- Electrical Engineering, 224.
 admission to, 35, 231.
 course of study in, 232.
 laboratories of, 230.
- Elocution, 91, 248.
 courses in, 93, 248.
- Embryology, 136, 144, 194.
- Endowment, 8.
- English, 87.
 courses in, 89, 248.
 entrance, 29, 37, 38, 39.
- English Literature, 90.
 courses in, 90.
- English Philology, 87.
 courses in, 89.
- Entomology, 138.
 courses in, 139.
 laboratory of, 138.
 museum of, 138, 174.
 summer courses in, 140.
- Entrance, 29-42, 67, 158, 175, 190, 200, 214, 231.
 algebra, 32, 35, 37.
 English, 29, 37-39.
 French, 34, 36, 38.
 geography, 30, 37.
 geometry, 32, 35, 37.
 German, 34, 36, 38.
 Greek, 33, 37.
 History, American, 31, 37.
 English, 31, 37.
 Greek, 31, 37.
 Roman, 31, 37.
 Latin, 33, 37.
 physiology, 30, 37.
 trigonometry, 35, 37.
- Eth courses in, 98, 99, 101.
- Examinations, 29.
 entrance, time of, 5, 7, 29, 37.
- Exotics, 136.
- Expenses, 44.
- Experimental Engineering, 224, 252.
- Faculties, 14.
- Faculty, University, 15.
- Farm, University, 172.
- Fellows, bond required of, 56.
 list of, 1897-98, 253, 254.
- Fellowships, 53, 54.
 American history, 54.
 application for, 55.
 Greek and Latin, 54.
 income of, 54, 55.
 political economy, 54.
- Fellowships, President White, 54.
 Susan Linn Sage, 54.
 vacancies in, 56.
 university, 54.
- Finance, 103, 112.
- Forcing houses, 173.
- Forestry, 135, 336a.
 College of, 336a.
- Foundation, 8.
- French, 84.
 courses in, 85, 247.
 entrance, 34, 36, 38.
- Garden, 173.
- Geography, entrance, 30, 37.
- Geology, 147.
 courses in, 151.
 laboratories of, 147, 148.
 museums of, 148, 149.
- Geometry, 32, 35, 37.
- German, 81, 246.
 entrance, 34, 36, 38.
- Germanic languages, 81.
 courses in, 82, 246.
- Graduate Department, 53.
 admission to, 56.
 Fellowships in, 53, 54.
 Scholarships in, 53, 54.
- Graduation, 45, 68.
- Graduation thesis, 46, 59.
- Graduate work, 53.
 admission to, 56.
 facilities for, 53.
- Greek, 74, 246.
 courses in, 76, 246.
 entrance, 33, 37.
- Gymnasium, 153.
- Histology, 144, 194.
 course in, 136, 145, 194.
- History, American, 103.
 courses in, 108.
 entrance, 31.
 ancient and mediæval, 102.
 courses in, 106.
 entrance, 31.
 modern European, 102.
 courses in, 108.
 entrance, 31.
- History and political science, 101.
 President White school of, 101.
 Bachelor of Philosophy in, 67.
- Horticulture, 180.
 courses in, 181.
 laboratories of, 173.

- Horticulture, museums of, 173.
 Human Anatomy, 143, 144, 194.
 Hygiene, 152.
 courses in, 153.
 entrance. 30.
 Industrial drawing, 226.
 Latin, 79, 246.
 courses in, 79, 246.
 entrance, 33, 37.
 Law, College of, 157.
 admission to, 35, 158.
 elocution and oratory, 166.
 expenses in, 169.
 Faculty of, 157.
 fees in, 169.
 graduate course in, 165.
 graduate scholarship in, 168.
 history and polit. science in, 166.
 lecturers in, 157, 165.
 libraries of, 167, 238.
 scholarships in, 168.
 summer courses in, 170.
 thesis prizes, 168.
 work by students in general
 courses in, 160.
 Lecturers, 25.
 special, 25, 66, 157, 207, 222.
 Library council, 238.
 Library, University, 238.
 staff of, 238.
 Marine engineering,
 graduate school of, 227.
 courses in, 237.
 Master's Degrees, 60.
 Mathematical Physics, 114, 119.
 Mathematics, 113, 249.
 courses in, 116, 248.
 entrance, 32, 35, 37.
 Machine design, 226.
 Mechanic arts, 225.
 Mechanical engineering, Sibley Col-
 lege of, 221, 223.
 admission to, 35, 231.
 collections of, 228.
 courses of study in, 231.
 courses in, 233, 251, 252.
 Faculty of, 221.
 laboratories, 229.
 lectures in, 222, 227.
 railway, 224a.
 Medicine, College of, 336b.
 Medical preparatory course, 156.
 entrance to, 37.
 Memorials, 50, 51, 336.
 Meteorological Bureau of New York,
 208.
 Microscopy, 144, 194.
 courses in, 145, 194.
 Military drill, 154.
 Military science, 154.
 courses in, 155.
 Mineralogy, 147, 150.
 laboratory, 148.
 museums of, 148.
 Music,
 courses in, 101.
 Natural history,
 Bachelor of Science, 67.
 Naval architecture, 227, 233.
 Neurology, 140.
 New York State Veterinary College,
 185.
 admission to, 35, 190.
 New York State Weather Bureau, 208.
 Officers, 27.
 Oliver Mathematical Club, 115, 120.
 Oratory, 91.
 courses in, 93.
 Paleontology, 147.
 laboratory of, 147.
 museums of, 147.
 Pathology, 198.
 Payments to the University, 43.
 Pedagogy,
 courses in, 98, 100, 101.
 Pharmacology, 196.
 Philology, comparative, 73, 245.
 courses in, 73, 245.
 Philology, English, 87.
 courses in, 89.
 Philosophical Review, 96. POL.
SERIES
 Philosophy, 94.
 courses in, 97.
 fellowships in, 54, 96.
 graduate scholarships in, 54, 96.
 Sage School of, 94.
 Photography, 124.
 Physical geography, 147, 151.
 Physical culture, 152.
 Physics, 120, 249.
 courses in, 122, 249
 laboratory of, 121.
 laboratory instruction in, 120.
 Physiology, 140, 194.
 courses in, 141, 194.
 entrance, 30, 37.

- Physiology, laboratories of, 140.
museums of, 141.
- Plane Geometry, 32, 37.
- Political Economy, 103.
courses in, 111.
- Political institutions, 104.
courses in, 110.
- Political Science, 103.
courses in, 110.
- Politics, 110.
- Preachers, University, 243.
list of, 1896-97, 26.
- Prizes, 47.
awarded in 1897, 328.
'86 Memorial, 50, 92.
Fuertes medals, 51, 220.
Horace K. White, 51, 199.
in College of Law, 52, 168.
Mrs. A. S. Barnes, 51.
'94 Memorial, 51, 93.
Sibley, 51, 237.
Sons of American Revolution, 52.
Woodford medal, 49, 93.
- Psychological, laboratory of,
- Public speaking, 93.
- Regents' Diploma, 38.
- Registration, 43.
- Rhetoric, 87.
courses in, 89.
- Romance languages, 84, 247.
courses in, 85, 247.
- Romance languages, Italian, 84, 86,
247.
Spanish, 84, 87, 247.
- Sage Chapel, 243.
- Sage College, 45.
- Sanskrit, 74.
- Scholars,
list for 1897-98, 254, 258.
- Scholarships, 47, 53-55.
associate alumnæ, 52.
Frank William Padgham, 49, 237.
graduate, 53, 54, 55.
state, 47.
Susan Linn Sage, 54.
University, 39, 47, 48.
- School certificates, 39.
- Semitic Languages and Lits., 69.
courses in, 70.
- Sibley College, 221.
(see Mechanical Eng.)
- Social Science, 104, 113.
- Special mention, 46.
- Special students, 40, 159, 177, 214, 227,
tuition fee for, 44.
- State scholarships, 47.
- Statistics, 104, 110.
- Students, catalogue of, 259.
special, 40, 159, 177, 214, 227.
- Summaries, 320.
- Summer courses of study, 140, 245.
- Teachers' certificates, 46.
- Theses,
for advanced degrees, 59, 61.
for graduation, 46.
- Trustees, 12.
officers of, 13.
standing committees of, 13.
- Tuition, 43.
- University library, 238.
staff of, 238.
- University extension, 171.
- Veterinary College—New York State,
187.
admission to, 35, 190.
buildings, 189.
course of study in, 192.
courses in, 193.
expenses in, 199.
faculty of, 187.
fees in, 199.
museum of, 189.
prizes in, 199.
- Weather Bureau, 208.
- Zoology, invertebrate, 138.
courses in, 139.
laboratory of, 138.
museum of, 138, 144.
summer courses in, 140.
- Zoology, vertebrate, 140.
courses in, 141.
laboratories of, 140.
museum of, 141.

