

Public Documents of Maine:

BEING THE

ANNUAL REPORTS

OF THE VARIOUS

Public Officers and Institutions

FOR THE YEAR

1896.

VOLUME II.

AUGUSTA kennebec journal print 1897

ANNUAL REPORT

OF THE

MAINE STATE COLLEGE

FOR THE

YEAR 1895

PART I

PART I-Reports of Trustees, President, and Treasurer.

PART II—Report of the Director of the Agricultural Experiment Station.

> AUGUSTA: BURLEIGH & FLYNT, PRINTERS TO THE STATE 1896.

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Annual Catalogue for 1895-6.

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REPORT OF THE BOARD OF TRUSTEES.

To the Honorable Governor and Executive Council of Maine:

The Trustees of the State College respectfully submit their twenty-seventh annual report, with the reports of the The year 1895 has been a year of President and Treasurer. progress and prosperity with the Maine State College. The new departments established during the year have received their equipments, and the work of each one is being carried on satisfactorily. The number of students has been larger each term, and the ensuing year promises a still greater in-Expensive, but important and necessary repairs and crease. improvements, have been made on the college buildings; especially on the dormitory (Oak Hall), which was badly out of repair and not suitable for a dwelling place for the students forced to occupy it. It is now in fine condition and the change of surroundings must exert a more favorable influence on its occupants. Each year the natural advantages of the college site are made more and more apparent. The grading of the campus, laving out and building of new roads and walks, and planting upon it of nearly 2500 trees and shrubs during the past year, have added to the beauty of the The campus and nearly all the college college premises. buildings, are now lighted by electricity from the college plant. There have been three fires during the year, causing inconvenience and trouble; but in making repairs, improvements and beneficial changes have been made; and as the buildings were fully insured, the college will gain rather than lose by the fires, because of the better facilities that will be afforded. Reference at length to all repairs, changes and improvements will be found in the report of President Harris.

The Kappa Sigma House, erected this year, one of the finest buildings on the campus, has been built under the supervision of Prof. George H. Hamlin, by the members of this society, with the aid of a loan from the College, with an agreement that annual interest on the loan shall be paid, and eventually the loan itself; the building to become the property of the College in case of the dissolution of the society.

During the year Lieut. Mark L. Hersey was ordered to join his regiment and was obliged to sever his connection with the College, much to the regret of students, faculty, and trustees. His four years of service at the College were of great value to the students, and the results of his instruction in physical culture and military tactics were at all times noticeable in the improved bearing of the young men. Similar good results may be expected from the training of Capt. W. S. Edgerly, his successor.

It will be seen by the report of President Harris, that in 1891 there were 102 students; in 1894, 203; in 1895, 256; of whom 14 were women. This increase is due to a number of causes; prominent among them being the new departments, which have attracted many new students, and the building through the college grounds of the B. O. & O. electric road, which enables students to live at home in Orono, Old The larger number of female students Town, and Bangor. is notable. This indicates that the young women of the State are awakening to the advantages offered by the College to them. While a considerable increase of students may be expected every future year, it is not probable that the next three years will see so large a gain as that of the last three years; but the institution is a growing one, and with its growth will come necessarily increased demands, for which the nation has in part provided, and for which the State will be called upon to do its part, and without doubt will respond readily, as in the past, according to the needs of the institution; especially if the feeling of just pride toward it which now prevails throughout the State shall continue.

President Harris has been indefatigable in bringing about the establishment of the new departments, and otherwise advancing the interests of the College. He has had, we believe, at all times the willing co-operation of the other members of the faculty, all apparently working harmoniously together with zeal and energy to promote the institution's growth and usefulness.

The interest shown in the summer school, the growing popularity of the short courses in agriculture, the continued large attendance on field days, the emphatic expressions of approval of the State Grange, are all indications of the confidence reposed in this institution and its work, by the people of the State.

HENRY LORD,

President of the Board of Trustees.

REPORT OF THE PRESIDENT.

To the Trustees of the Maine State College:

I have the honor to submit my third annual report as President of the Maine State College, covering the calendar year 1895. I attach the annual catalogue for the school year 1895-96, and other papers of interest.

THE FACULTY.—The detail of Lieutenant Mark Leslie Hersey as Professor of Military Science expired June 30, 1895. Under him the military department was maintained in a state of efficiency, and its honors were always highly regarded by the students. As instructor in physical science he did good service. His career deserves commendation for the thoroughness with which he identified himself with the college, and the interest which he took in its welfare, and in the good of the student body. He was succeeded at the beginning of the fall term by Captain Winfield Scott Edgerly.

Professor Hart of the Department of Mathematics, who was given leave of absence during last year for study at the University of Chicago, has returned to his work with renewed vigor and interest. His experience justifies the policy of granting leave of absence to members of the faculty, for study and investigation.

Such leave has been granted for the present year to Professor Munson, Professor Stevens, and Assistant Professor Grover.

Professor Munson will spend the year in study and investigation in Europe, and at Cornell University. The part of his work which cannot be postponed until next year is carried on by other members of the force. Professor Stevens of the department of Physics will spend the year at the University of Chicago. His necessary recitation work is in charge of the instructor in electrical engineering, and the tutor in physics.

Assistant Professor Grover will spend part of the year at Cornell University, but most of it at the Massachusetts Institute of Technology. His place is supplied by Mr. William David Cummings, C. E., a graduate of Cornell University in the class of 1889. Mr. Cummings has had extensive experience in important practical engineering works, and has been instructor in civil engineering in the Washington University of St. Louis, Mo.

Mr. Frank Damon, B. S., of our last class, has been appointed tutor in physics. He has charge of the physical laboratory.

The department of Rhetoric and Modern Languages has been divided. Professor Estabrooke who was formerly professor of Rhetoric and Modern Languages, becomes professor of English. The work in modern languages is provided for by the appointment of Mr. Edwin Bryant Nichols, B. A., as instructor. Mr. Nichols is a graduate of the Wesleyan University at Middletown, Conn., and has pursued his studies abroad.

Mr. Wilbur Fisk Jackman, B. S., Ph. C., has been appointed instructor in Pharmacy. He is a graduate of both the scientific department, and the school of pharmacy of the University of Michigan, and has had several years practical experience in the drug business.

Mr. Burton Smith Lanphear, B. S., succeeds Mr. Ernest Pitney Chapin as instructor in electrical engineering. Mr. Lanphear is a graduate of Cornell University, where he held a fellowship, at the time of his election.

Mr. Wendall Wyse Chase, B. C. E., of our last class, has been appointed tutor in drawing.

Mr. Halbert Gardiner Robinson, B. C. E., of our last class, . has been appointed tutor in mathematics.

Mr. Ora Willis Knight, B. S., of our last class, has been appointed assistant in natural science.

Mr. Fred Charles Moulton, M. S., a graduate of the College, and a post-graduate student of Harvard University, has been appointed chemist in the experiment station, and assigned to work in the analysis of human foods, provided for by an appropriation from the United States Department of Agriculture.

Mr. George Parker Cowan, B. C. E., tutor in civil engineering left the college at the end of the fall term of 1895, and has since been instructor in manual training at Good Will Farm.

Mr. George Harry Hall, B. M. E., who was for a time meterological observer of the experiment station left at the end of the fall term to fill a position with the Builders' Iron Foundry, of Providence, R. I.

THE STUDENTS.—The number of students for 1894-'5 was 203. The number for 1895-'6 is 262, exclusive of the summer school students, with these the number is 285.*

The growth of the College is indicated by the following list: The number of students in 1885-'86 was 92; in 1886-'87, 103; in 1887-'88, 121; in 1888-'89, 122; in 1889-'90, 131; in 1890-'91, 113; in 1891-'92, 102; in 1892-'93, 146; in 1893-'94, 139; in 1894-'95, 203; in 1895-'96, 262.

The saddest event of the year is the death of Mr. Harry L. Holmes of the freshman class. He was taken ill in the early fall with appendicitis, removed to his home in Augusta, and an operation performed, but without success. His stay in the College was short, but long enough to endear him to his classmates and instructors, and to show promise of a useful career.

New courses of study.—The Electrical Engineering, the Preparatory Medical, and the Pharmacy courses recently established are now well equipped with apparatus, and in successful operation, each with a satisfactory number of students.

The Latin-scientific course has been planned in accordance with the estimates adopted at your last meeting and will be

^{*}An error in the catalogue makes these numbers less.

open to students next fall. It is expected that this course will open to our graduates the profession of teaching, which is now nearly closed to them, since the higher schools of the State require the teaching of Latin, for which our students are not prepared. The entrance requirements recommended by the faculty, and submitted for your approval, will make the course one of high grade.

The establishment of this course is in accordance with the demand of a large number of our alumni, and also with the action of many other technical institutions, and marks a tendency in such institutions to lay increasing stress upon the work of those departments which furnish general rather than special training.

THE SUMMER SCHOOL.—The first session of the summer school began July 15, and continued for three weeks, under the joint control of the State Superintendent of Schools, and the President of the College. Laboratory courses were offered in chemistry, physics, natural history, and domestic economy, and lecture courses in chemistry, physics, natural history, domestic economy, pedagogy, civics, and English. The lecture courses were of two kinds; daily recitation and lecture exercises which were very much like the regular College exercises, and occasional lectures, which were usually of a popular character, and open to the general public. Of the latter kind there were two lectures each day. The attendance at these lectures some times ran as high as seventy-five. The attendance upon the other courses was very satisfactory. The total number of students in regular attendance upon one course or more, was twenty-three.

Each student in a laboratory course was charged \$5.00 to cover expenses. Other courses were entirely free. The faculty of the school included in addition to the Superintendent of Schools, and the President of the College :--Prof. Aubert, Prof. Stevens, Prof. Harvey, Prof. Jordan, Prof. Rogers, and Mr. Colby of the College faculty, Miss Anna Barrows, editor of the American Kitchen Magazine, and Miss L. Wilson, instructor in domestic economy in Toronto. THE WINTER COURSES IN AGRICULTURE.—The short winter courses in agriculture, as recently revised are three, one devoted to general agriculture, one to horticulture, and one to dairying, each running for six weeks and occupying the whole time of the student. The new arrangement went into effect last winter, with an encouraging increase in attendance.

OUR COURSES FOR WOMEN.—The law of the State has for many years admitted women to the College on equal terms with men, but as there are no dormitories for women on the campus, and the only available rooms for rent are a mile and a quarter away, it has been nearly impossible for women to attend the College. The building of the Bangor, Orono, and Old Town electric road has done much to make the law effective, and the present year shows a noteworthy increase in the number of women.

There are now fourteen women students, the largest number in attendance during the existence of the College. The number during recent years has been as follows: 1891-2, 2; 1892-3, 2; 1893-4, 2; 1894-5, 9; 1895-6, 14.

It is not my expectation that in the near future the number will be very great or will constitute a large part of the student body, but I look for a constant increase. Our courses are not planned especially for women, but they offer opportunities which are often not appreciated.

The new Latin-scientific course will give an admirable preparation for any line of work, and especially for teaching. The scientific course gives an excellent general training and furnishes special preparation for work in either science or modern languages. By proper selection of electives, Either of these courses can be made to give special training in mathematics, physics, or any branch of natural science; in civics, literature, or language.

The Pharmacy courses offer an attractive career to women. Pharmacy involves no heavy labor, usually requires only a small capital, brings the practitioner into contact with few unpleasant people, and does not necessarily require absence from home. For these reasons it seems to offer a profitable

line of work for women, in which they will suffer few disadvantages, when brought into competition with men. The course in chemistry offers great advantages to women. As analysts or teachers of chemistry they will find agreeable and interesting employment. The preparatory medical course is laid out for those who are preparing for medicine whether Even the engineering courses are not withmen or women. out their opportunities for women. In the active practice of the engineering professions women would suffer disadvantages, but in office work, in drafting, in computation, and in designing, they would find themselves often with some advantages over men. The Library Economy course is chiefly attractive to women.

SIGMA HOUSE.—The Тне Карра college has constructed a house for the Kappa Sigma Society, which will be ready for occupancy at the beginning of the next year. It is located on the crest of the hill, to the west of the town road, and midway between the Q. T. V. House and Professor Aubert's residence. Part of the expense is defrayed by the society, but the greater part by the College. It is expected that the society will contribute, as soon as it is able, the full cost of the building, and will in the meantime pay interest upon the amount which the college has invested. The building will furnish accommodations for about twenty-five students.

The building was designed by Mr. Wilfred E. Mansur, architect, of Bangor. It is of wood and three stories in height. The main building is 43 feet in front, and 31 feet deep, the ell is 27 feet in front and 21 feet deep, the woodshed is 25 feet front and 15 feet deep, making the extreme dimensions 43 feet and 67 feet. The main building is divided throughout by a wide hall running from the front to the back. On the first floor of the main building on the north side or right hand of one entering by the door, is a double parlor 30 feet by 16 feet. It is divided by sliding doors, and has a fireplace with tile hearth and wood mantel. On the south side are the dining room, 22 feet by 15 feet, and the pantry, 16 feet by 18 feet. In the ell is a large kitchen, servants' room, halls, shed, and store rooms. On the second floor in the main building there are four large studies for the use of students, a general sitting room, and a guest chamber. In the ell are three studies, and a bath room. On the third floor there are six large sleeping rooms.

The house is heated by a combined hot-water and hot-air system.

THE STATE APPROPRIATION.—The College asked the last legislature to impose a permanent State tax of one-tenth of a mill for the support of the institution. The plan was favored by many members, and favorably reported by the committee, but failed to pass the House which referred the bill back to the committee. The committee reported a new bill, appropriating twenty-five thousand dollars a year, for ten years, which passed the House. The Senate reduced the time to two years. In this form the bill was passed by both houses, but when ready to be enacted in the House, it was reduced to twenty thousand dollars for each of two years. I fear that it will be impossible to make this appropriation meet the imperative needs of the institution.

The appropriation is, however, an advance because it was made to pay current expenses, and was almost without limitations, enabling the trustees to use it as they might think most necessary. I seriously regret the continued necessity of applying to each legislature, with the anxiety and uncertainty incident to the method, but I think the college is fortunate in receiving such substantial recognition of its work and deserts, as were shown by the members of the legislature last winter.

REPAIRS TO OAK HALL.—During the summer, extensive repairs have been made in this building. The interior finish has been torn out for three stories and the building remodeled. The changes made are more extensive than were contemplated when the repairs were undertaken, for when the work was underway the condition of the building proved to be much worse than was anticipated. The foundation of the middle of the front wall, which had given way and threatened to cause

a fall of the wall, has been rebuilt. The cellar has been divided by a brick wall running across it, just north of the middle. In the north cellar are the boiler, brick bins for coal and ashes, and a brick bin into which the sweepings from the halls are dropped through a dust shoot opening on each floor. The south cellar is divided by the hall way into two parts. The southeastern portion is used as a receiving room for freight and baggage; the remainder of the eastern side, occupying nearly half the length of the building is partitioned off for storage room for trunks, etc. The west side is occupied by the hand elevator for raising baggage to the upper floors, by the plumbing room, the water closets, and the ves-The plumbing room is a narrow room tibule to the closets. running the length of the water closet room, in which is situated all the plumbing so arranged that repairs can be made without interfering with the public rooms.

Above the cellar the changes are practically uniform for the first, second and third floors. With the exception of one room, the entire finish has been taken out, including plaster-The stairways have been removed from the halls and ing. been replaced by one stairway in the space formerly occupied by hall rooms on the east side of the building, towards the boarding house. In order to obtain sufficient room, it was necessary to widen this space by moving back the partitions on each side eighteen inches. Ceilings have also been brought down to a uniform height. Removing the stairways and lowering the ceilings has given the halls a much wider They have hard wood floors, oak wainscoting, appearance. and white wood ceilings. The wood is finished in the natural color and the side walls are plastered with adamant. The rooms have whitewood ceilings and wainscoting, and adamant plastering. In the fourth hall no extensive changes were made.

The building is now in excellent condition and will bear favorable comparison with similar buildings in other institutions. I am pleased to say that the students have shown a full appreciation of the improvements, and that the building has been well treated.

GENERAL REPAIRS AND CHANGES.—A large amount of money has been expended in repairs distributed among all the buildings.

In Wingate Hall, the hall room at the end of the second hall, formerly occupied by the treasurer, has been arranged as a study and private laboratory for the professor of physics. The room on the second floor in the southeast corner, formerly used by the department of English, has been converted into a physical laboratory. These changes give the department of physics four rooms including one-half the second floor of Wingate Hall. In the basement, the large northeast room has been supplied with dark room, tables, piers, etc., fitting it as a laboratory for electrical engineering and the heavier work in physics.

Important changes have been made in the main cellar of the chemical laboratory. The floor has been cemented, a supply room partitioned off by a brick wall from the entrance room on the north side, the windows on the west and south sides cut down, an assay room made in the northwest corner, and a laboratory occupying the whole of the south side, provided for the freshman class in general chemistry.

Additions and improvements have been made in the rooms devoted to photography, to allow the accommodation of a large number of students.

The basement of Coburn Hall under the south side of the main building has been made into an office for the transaction of the general college business. It contains a large room for the joint use of the Treasurer of the College, the Secretary of the Faculty, and the Secretary of the President, a private room for the President, and a store-room. On the north side has been provided a dressing room for the women students.

The recitation room in the northwest corner of the first floor has been fitted up for the Department of English. The room on the south side formerly occupied by the physical laboratory has been fitted up for a library reading room. In the second story, the northeast room formerly used as a work room in connection with the museum has been put to use as a recitation room for the department of modern languages. The museum material and work are crowded into the rooms of the department of natural history.

The other more important changes include the increase of the capacity of the chapel by a hundred seats, the fitting up the first floor of the old Q. T. V. chapter house as an additional recitation room for the department of mathematics, and the improvement of the boarding-house by replacing the old stove with a large hotel range, the construction of a grand stand, the painting of the Q. T. V. house, the janitor's house, the house occupied by Mr. Colby, the shop, Oak Hall, and the water tower.

Incandescent lights from our own plant have been introduced into the boarding-house, Oak Hall, Wingate Hall, the Chemical Laboratory, Coburn Hall, the President's house, and the Beta Theta Pi house, and the Commons. Arc lights have been placed upon the campus.

FIRES.—We have suffered from three fires. The first occurred in the dormitory last spring. It was discovered before it had gained headway and the student fire brigade had no trouble in extinguishing it; the total damage was less than a hundred dollars.

The second fire occurred early in the fall term, in the second floor of the wing of the chemical laboratory, used by the class in mineralogy. It was an attic room lighted by skylights and ceiled with wood. The ceiling, floor, tables, plumbing, and apparatus were entirely destroyed, but the fire was prevented from breaking through the sheathing and spreading to other rooms.

The third fire occurred November 2nd, in the same building. It was first observed about 11 o'clock, in the cellar, near the gas machine. It burned for three hours before it was finally extinguished, gutting the entire ell of the building, including the qualitative and quantitative laboratories, on the first floor, and the mineralogy, and pharmacy laboratory, on the second, which had been nearly restored after the first fire. The college is to be congratulated on saving the main building, which suffered only a slight damage from smoke and water. For this success we are indebted to our excellent College water service, to the efficiency of the student fire service, and to the hearty and efficient help of the Orono fire companies.

Although the fire destroyed the laboratories, and nearly our whole stock of apparatus and chemicals, the students were regularly at work within a week. The qualitive work is carried on in the basement laboratory already described. To provide for the quantative work, temporary tables have been built in the recitation room on the first floor.

THE GROUNDS.—Very extensive improvements have been made upon the grounds. The portion of the campus lying immediately to the south of the President's house has been graded. A road has been laid out on the south side of this new lawn, connecting the entrance to the grounds with the station and farm buildings, but has not been graveled. The lawn by the new Kappa Sigma House has been graded and a road laid out to it. About twenty-five hundred trees and shrubs have been set out.

THE LIBRARY.—The Library has been largely increased during the year, but the growth is not greater than the College interest demands. The total number of bound works on the shelves is 8,965, nearly all of them having been obtained by purchase. The use of the library is constantly and rapidly increasing.

During the year the following gifts have been received, for which I render the sincere thanks of the College :—from Prof. Eugene Aubert of the Woman's Normal College of New York City, 52 volumes of the Eclectic Magazine, and 8 volumes of the North American Review; from Miss A. F. Hopkins of Dover, Maine, 56 volumes of Littell's Living Age.

NEW EQUIPMENT.—The department of mechanical engineering has been supplied with a new boiler, and a new engine. The electrical engineering department has been supplied with a full equipment, including generators, motors, dynamos, storage battery, tools, materials for practical work, etc.

Numerous other additions have been made to the equipment of all departments.

THE COMMENCEMENT.-The exercises of the last Commencement were the Junior Exhibition, Saturday, June 15th; the Baccalaureate Sermon, June 16th, delivered by the Rev. Martyn Summerbell, D. D., pastor of the Free Baptist church in Lewiston; the Convocation, in the morning of Monday, June 17th, which was increased in interest by the presence of ex-president Fernald, and a large number of alumni; the Class Day exercises in the afternoon; and the Commencement Oration in the evening by E. C. Reynolds, Esq., of Portland; the Exhibition Drill in the morning of Tuesday, June 18th; the Receptions by the College fraternities at their club houses in the afternoon; the Reception by the President in the evening; Commencement in the morning, Wednesday, June 19th, followed by the Commencement Dinner; the meeting of the Alumni Association in the afternoon, and the Commencement Concert in the evening.

Certificates were presented to the following persons upon completing the course in Library Economy, in a satisfactory manner:

Geneva Ring Hamilton, Orono.

Virginia May Ring, Orono.

Lena Matilda Sheridan, Orono.

The first degree was conferred on the following persons :

Gustavus Gilbert Atwood, B. C. E., South Carver, Mass. Harold Sherburne Boardman, B. M. E., Bangor.

Alfred Howard Buck, B. M. E. (in Electricity), Foxcroft.

Isaac Glidden Calderwood, B. C. E., Vinalhaven.

Wendell Wyse Chase, B. C. E., Auburn.

Frank Damon, B. S. (in Science), Hampden.

Merton Eugene Ellis, B. M. E., North Guilford.

LeRoy Rowell Folsom, B. M. E. (in Science), Corinna.

Charles Albert Frost, B. C. E., Monmouth.

- Oscar Llewellyn Grover, B. M. E., (in Electricity,) Redlands, Calif.
- Gerardus Andries de Haseth, B. C. E., Curacao.
- Ora Willis Knight, B. S. (in Chemistry,) Bangor.
- James Willis Martin, B. C. E., Boston, Mass.
- Earl Clinton Merrill, B. C. E., East Eddington.
- Albion Moulton, B. M. E., Hiram.
- Walter Marshall Murphy, B. C. E., South Norridgewock.
- Clifford James Patten, B. C. E., Belfast.
- Halbert Gardiner Robinson, B. C. E., Patten.
- Mellville Frederick Rollins, B. C. E., Bangor.
- Charles Dura Thomas, B. C. E., Brownville.

The second degree was conferred upon the following persons, upon presentation of satisfactory theses and proof of professional and scientific work extending over a period of not less than three years :

- Fred Langdon Eastman, M. E., Lynn, Mass.
- Joseph Colburn Graves, M. E., New York, N. Y.
- George Patrick Maguire, C. E., Malden, Mass.
- Fred Charles Moulton, M. S., Orono, Me.
- Stanley Milton Timberlake, C. E., Boston, Mass.
- Daniel Carr Woodward, M. E., Winthrop, Me.

COLLEGE PUBLICATIONS.—The number of catalogues printed last year proved insufficient, and with the consent of the Governor and Council, we issued a "short catalogue" and several circulars to supply the deficiency. There were advantages in this method. The expense was less than would have been entailed by a sufficient increase in the number of catalogues, and in many cases, the short catalogues and circulars containing the information needed and nothing more, were better than the catalogue.

During the year the following documents have been issued: A Short Catalogue, Summer School Circular, Circular on the Course in Pharmacy, and a Circular on the Course in Electrical Engineering. THE ALUMNI LIST.—There will be printed with this report, a list of the alumni carefully revised by circulars sent to graduates and undergraduates. It is expected that the list will prove to be very nearly correct, but the college will be thankful to be informed of any errors. The alumni list will be printed on alternate years.

THE COMMONS.—The Commons, or college boarding-house, was in the charge of Miss Ida A. Moore, a graduate of the Boston Cooking School, during the spring term of 1895; the price of board was \$2.75 per week. During the fall term of 1895, it has been in charge of Mr. H. H. McLain whose management has given eminent satisfaction. The price of board has not been determined, but it is expected that it will not be more than \$2.75 per week. The number of boarders has been unusually large.

THE FARMERS' FIELD DAY came Wednesday, June 5th. The day was cold and windy, but the number of visitors was very large, probably about seventeen hundred. The buildings were open, the shops and laboratories were running, the students gave an exhibition drill, and in the afternoon, a public meeting was held in the chapel, at which addresses were made by distinguished visitors.

THE ELECTRIC ROAD.—One of the most important events of the year is the building of an electric road from Bangor through Orono, by the College, to Old Town. This gives the College connections, every half hour, with any one of these places. As the road does not run to the rail-road station at Orono, visitors will find it convenient to take the electric road at Bangor, Veazie, or Old Town.

Respectfully submitted,

A. W. HARRIS, President.

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REPORT OF THE TREASURER.

To the Trustees of the Maine State College:

The Treasurer of the College has the honor to submit the following report concerning the financial condition of the institution :

The ENDOWMENT FUNDS are invested at the present time as follows:

COBURN BEQUEST State of Maine bonds at 4% interest.	••••	\$100,000 00
UNITED STATES LAND GRANT FUND State of Maine bonds at 5% interest.		118,300 00
ACCUMULATED INTEREST ON LAND GRANT FUND Security Loan and Trust Company bonds at 6% interest Knox and Lincoln Railroad 5% bonds Trenton, N. J., Passenger Railway 6% bonds Portland and Rumford Falls Railroad 5% bonds	\$3,000 00 1,000 00 1,000 00	6,000 00
THE COBURN LOAN FUND College Treasurer Loaned	\$85 00	100 00
THE FRANK KIDDER SCHOLARSHIP FUND Bangor Savings Bank		675 00
THE KITTRIDGE LOAN FUND Bangor Savings Bank Loaned	132 00	837 00

The INCOME of the College from all sources for the next year will be as follows :

State Appropriation	\$20,000 00
Coburn Bequest	4,000 00
Land Grant Fund	5,915 00
Security Loan and Trust Company	
Knox and Lincoln Bonds	50 00
Trenton Passenger Railroad Company	60.00
Portland and Rumford Falls Railway Company	50 00
United States-Morrill Act	21,000 00
United States-Hatch Act for Experiment Station	15,000 00
From inspection of fertilizers, Experiment Station	850 00
From other sources, Experiment Station	325 93
Rent of houses on campus	614 00
	+40.044.04
	\$68,044 93

Net Expense of College from June 30, 1894, to Juae 30, 1895. _____

Advertising	$\begin{array}{c} 28\\ 74\\ 131\\ 12\\ 234\\ 80\\ 18\\ 80\\ 18\\ 87\\ 644\\ 127\\ 529\\ 2,649\\ 39\\ 4,157\\ 855\\ 877\\ 68\\ 1,663\\ 877\\ 68\\ 1,663\\ 30\\ 167\\ 25,596\\ 495\\ 30\\ 167\\ \end{array}$	$\begin{array}{c} 40\\ 13\\ 36\\ 5\\ 76\\ 3\\ 3\\ 8\\ 76\\ 3\\ 3\\ 8\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\ 5\\ 7\\ 3\\ 3\\ 4\\ 3\\ 6\\ 3\\ 6\\ 7\\ 2\\ 0\\ 8\\ 4\\ \end{array}$
	\$39,473	36

General Statement of Receipts and Expenditures for the Year Ending June 30, 1895.

RECEIPTS FROM JUNE 30, 1894, TO JUNE 30, 1895.

General Statement-Concluded.

EXPENDITURES FROM JUNE 30, 1894, TO JUNE 30, 1895.

Net expense of College from June 30, 1894, to June 30, 1895	\$39,473 3
Vector expense of conege from sure so, 1894, to sure so, 1895	φου,τιο α
S 3 50 Experiment Station, general account.	
Experiment Station, Hatch fund 15,000 00	
Fertilizer Control.	
United States Food Investigation 250 00	16,961 1
Amount due Treasurer, June 30, 1894, on notes	,
Boarding House	
Chemical Laboratory	
Construction of Kappa Sigma House 124 59	
Department of Horticulture	
Department of Mineralogy and Photography 27 25	
Department of Military Science 728 70	
Department of Physics	
Indowment Fund	
Farm	
Fuel account	
Prentiss Prize	
Prentiss Prize 45 00 Shop 381 43	
Special repairs Oak Hall 123 45	
Student account	
Text books	
Treasurer's notes 18,517 25	
	39,147 3
Balance on hand June 30, 1895	460
	\$96,041

Account with the Experiment Station for the Year Ending June 30, 1895.

RECEIPTS.		
Balance on hand June 30, 1894	\$362 93	
Experiment Station, from sale of produce, etc	406 05	
Fertilizer Control	1,100 00	
Fertilizer Control United States Government, Hatch Fund	15,000 00	\$16,868_98
Chited States dovernment, Haten F and	10,000 00	¢10,000_00
EXPENDITURES.		•
Creamery Inspection	\$ 3 50	
Creamery Inspection	638 16	
Fertilizer Control	371 65	
Fertilizer Control United States Food Investigation	$250 \ 00$	
Salaries	9,557 93	
Labor	765 65	
Publications	$208 \ 10$	
Postage and stationery	275 67	
Freight and express	180 97	
Freight and express Heat, light and water Chemical supplies Seeds, plants and sundry supplies	412 44	
Chemical supplies	286 11	
Seeds, plants and sundry supplies	531 80	
Fertilizers.	167 65	
Feeding stuffs	508 02	
Library	111 12	
Library Tools, implements and machinery	135 31	
Furniture and fixtures	118 35	
Scientific apparatus	417 78	
Live stock	150 00	
Traveling expenses	214 85	
Traveling expenses	$214 85 \\ 209 31$	
Puilding and uppairs	209 31	A10 000 01
Building and repairs	748 94	\$16,263 31
Balance on hand June 30, 1895	••••	605 67
		A10.000.00
		\$16,868 98
	1	

CATALOGUE OF THE GRADUATES.

* indicates deceased, and † indicates not heard from.

1872.

Gould, Benjamin Flint, C. E., Manager, Solidated Land and Water Co.,
Hollister, Calif.
Hammond, George Everett, C. E., Chief Clerk, Department Yards and
Docks, Navy Yard, Portsmouth, N. H.,
Haskell, Edwin James, B. S., General Manager, Haskell Silk Company,
Westbrook.
Hilliard, Heddle, C. E., Oldtown.
Thomas, Eber Davis, B. S., Farmer and Surveyor, Grand Rapids, Mich.
Weston, George Osmer, B. S., Farmer Madison.

1873.

Eaton, Russell William, C. E., Agent Cabot Manufacturing Company,
Brunswick.
Hamlin, George Herbert, C. E., Professor of Civil Engineering, Maine
State College,Orono.
Holt, Fred William, C. E., Civil Engineer, St. George, N. B.
Oak, John Marshall, B. S., Merchant, Bangor.
*Reed, Charles Emery, C. E., Dayton, O.
Scribner, Frank Lamson, B. S., Agrostologist, Agricultural Department,
. Washington, D. C.
Thayer, Harvey Bates, B. S., Druggist, Presque Isle.

1874.

*Allen, William Albert, C. E.,	Portland.
*Balentine, Walter, M. S.,	Orono.
Gerrish, William Herbert, B. S., M. D., City	Physician of Deering,
	Deering Centre.
Gurney, John Irvine, B. S., Florist, High	land Street, Dorchester, Mass.

Hunter, Rodney David, B. S., Insurance Agent,

535 Twenty-fifth Street, Oakland, Calif.

Ramsdell, Louise Hammond, B. S. (Mrs. Milton D. Noyes), Maple.

1875.

Bates, Solomon Wheaton, C. E., Patent Attorney, Portland.
Bumps, Wilbur A., C. E., M. D., Physician, Dexter.
*Clapp, Samuel Hervey, C. E.,
Coburn, Lewis Farrin, C. E., Lawyer, Eureka, Calif.
Colesworthy, Charles Franklin, B. S., Dealer in Coal and Wood,
Pendleton, Ore.
*Durham, Charles Frederic, C. E., Crescent City, Calif.
Goodale, Alfred Montgomery, B. S., Treasurer Boston Manufacturing
Company, Waltham, Mass.
Hitchings, Edson Forbes, C. E., M. S., Instructor in Natural Science,
East Maine Conference Seminary,Bucksport.
Jordan, Whitman Howard, M. S., Director, New York Agricultural
Experiment Station, Geneva, N. Y.
Mayo, Edward Doliver, M. E., with Barnett and Record Company,
315 Corn Exchange, Minneapolis, Minn.
Mitchell, Albert Eliphalet, M. E., Superintendent, Motive Power Machin-
ery and Stock of "Erie System" of Railroads,
21 Cortlandt St., New York, N. Y.
Mitchell, Allen Gilmore, C. E., Assistant Engineer, Pennsylvania Rail-
road,Pittsburg, Pa.
*Moore, Fred Lamson Visalia, Calif.
Rogers, Luther Woodman, B. S., Proprietor Atlanta Tea and Coffee
Store,Atlanta, Ga.
Sewall, Minott Wheelwright, M. E., with Babcock and Wilcox Co.,
29 Cortlandt St., New York, N. Y.
Shaw, George Moore, C. E., Member of Law Firm of Johnson & Shaw,
921 Broadway, Oakland, Calif.
Southard, Louis Carver, M. S., Lawyer, 27 School St., Boston, Mass.
Webb, Wesley, M. S., Partner in Peachland Nurseries, Dover, Del.
*Work, Edgar Alexander, C. E., Westpoint, N. Y.

1876.

Blanding, Edward Mitchell, B. S., Editor and Publisher Maine Industrial
Journal,Bangor.
*Brainard, Charles M., B. S., Skowhegan.
*Buker, George Haskell, B. S., Presque Isle.
Cowan, Florence Helen, B. S., Teacher, 46 Summer St., Lynn, Mass.
Crosby, Oliver, M. E., President and Engineer, American Hoist & Der- rick Co.,
Cyr, Vetal, B. S., Principal Madawaska Training School, Fort Kent.
Dike, James Edward, C. E., Engineering and Surveying, Orono.
*Dike, Willis Oliver, B. S.,
Estabrooke, Horace Melvin, M. S., M. A., Professor of English, Maine
State College, Orono. Farrington, Arthur Manly, B. S., B. V. S., Chief of Miscellaneous
Division, Bureau of Animal Industry, U. S. Department of Agri-
culture,
Foss, George Obed, C. E., Civil Engineering and Contracting,
410 E. 19th St., Minneapolis, Minn.
Haines, William Thomas, B. S., LL. B., Lawyer, Waterville.
Hamilton, Henry Fairfield, B. S., D. D. S., Dentist,
125 Marlboro St., Boston, Mass.
Haskell, Newall Prince, B. S., Farmer, New Gloucester.
How, Edward, M. E., Clerk, U. S. Treasury Department,
Washington, D. C.
Hubbard, Philip Wadsworth, B. S., Nurseryman, Alhambra, Calif.
Jones, Samuel Messer, M. E., Mechanical Engineer, Springfield, Mass.
Lewis, Albert Augustus, B. S., Clergyman,
Long, Herbert Augustine, M. E., Farmer,
Lothrop, Luther Ramsdell, C. E., Chief Engineer, Brainerd & Northern
Railroad,Lothrop, Minn.
Martin, Nelson Hussey, B. S., Merchant, Fort Fairfield.
Oak, Charles Edson, M. E., State Land Agent and Forest Commissioner,
Augusta.
Augusta. Parks, George Daniel, C. E., Lawyer,La Fayette, Ind.
Parks, George Daniel, C. E., Lawyer, La Fayette, Ind.
Parks, George Daniel, C. E., Lawyer, La Fayette, Ind. Peirce, Hayward, B. S., Proprietor Granite Works, Frankfort.
Parks, George Daniel, C. E., Lawyer, La Fayette, Ind. Peirce, Hayward, B. S., Proprietor Granite Works, Frankfort. Reed, Frank Radford, C. E., Assistant Resident Engineer for Rumford
 Parks, George Daniel, C. E., Lawyer, La Fayette, Ind. Peirce, Hayward, B. S., Proprietor Granite Works, Frankfort. Reed, Frank Radford, C. E., Assistant Resident Engineer for Rumford Falls Power Co., Rumford Falls.
 Parks, George Daniel, C. E., Lawyer,
 Parks, George Daniel, C. E., Lawyer,
 Parks, George Daniel, C. E., Lawyer,
 Parks, George Daniel, C. E., Lawyer,

1877.

Blackington, Alvah DeOrville, C. E., Chief Engineer, E. & W. V. R. R., and Sup't Dunmore Gas and Water Co.,.....Dunmore, Pa. Burns, Robert Bruce, C. E., Resident Engineer, Atlantic & Pacific R. R., Williams, Ariz.

Dakin, Eugene H., B. S., Business Manager Journal Publishing Co.,
Bangor.
Danforth, Edward Franklin, B. S., I.L. B., Lawyer, Skowhegan.
Elkins, Augustus Jerome, B. M. E., Book-keeper,
331 East 16th St., Minneapolis, Minn.
Emery, Alicia Town, B. S., Orono.
Gould, Samuel Wadsworth, B. S., LawyerSkowhegan.
*Lunt, Joseph Cony, B. C. E., El Paso, Texas.
Phillips, Fred Foster, B. S., Insurance Washington, D. C.
*Shaw, Samuel, B. M. E., Boston, Mass.
Stevens, Thomas J., B. M. E., Druggist, Portland.
Stone, Frank Pierce, B. S., Pharmacist,
Sturgis, George Eugene, B. C. E., Travelling Salesman, Portland, Ore.
Towne, Charles Elmer, B. C. E., Owner and operator of quartz mines,
(gold)Rocky Bar, Idaho.
Weeks, Nellie Estelle, B. S., (Mrs. Llewellyn Spencer), Orono.
†Weeks, James Walter, B. M. E., Architect, North Des Moines, Iowa.
Webster, Ivan Eldorus, B. S., Orono.

1878.

†Brown, Emma, B. S., (Mrs. Charles Gilman,) Supervisor of Schools,
Enfield.
Caldwell, Andrew James, B. M. E., Mechanical Engineer, with Henry R.
Worthington,
Chamberlain, Cecil Calvert, B. S., Lumber Merchant, Enderlin, N. D.
Fernald, George Everett, B. C. E., Commercial Salesman, Wilmette, Ill.
Heald, James, B. S.,
Locke, John, Jr., B. S., Chief Clerk, General Freight Office, Maine
Central R. R., Portland.
Oakes, Frank Judson, B. C. E., Mechanical Engineer, with Henry R.
Worthington,
Patterson, John Cameron, B. C. E., Assistant Engineer, Great Northern
R. R., Great Falls, Mont.
Tripp, Winfield Eastman, B. C. E., LL. B., U. S. Land Attorney and
Postmaster, Iron River, Wis.
Walker, Edward Colby, B. S., LawyerBridgton.
Webster, Otis Colby, B. S., Druggist Augusta.

1879.

[†] Bean, Harry Percy, C. E.,	San Jose, Calif.
Blake, Edward Josiah, C. E., Chief Engineer, Chie	eago, Burlington &
Quincy R. R.,	Chicago, Ill.
Crosby, Simon Percy, B. S., Attorney at Law	St. Paul, Minn.
†Cutter, John Dana, B. S., M. D., Physician	Tomahawk, Wis.

•

Decker, Wilbur Fisk, M. E., Loans,

913 Guaranty Loan Building, Minneapolis, Minn.
Decrow, David Augustus, B. C. E., Designing Engineer of Holly M'f'g
Co., Lockport, N. Y.
Ferguson, Willis Edwin, B. S., Nurseryman, Whittier, Calif.
Gibbs, Charles Wingate, C. E., Engineer, Suffolk Globe Mining and Mill-
ing Co.,Ophir, Colo.
Gould, Annie Mary, B. S., (Mrs. Loomis F. Goodale,) St. Joseph, Mo.
*Holt, Nellie Maud, B. S.,Orono.
Kidder, Frank Eugene, C. E., Ph. D., Architect and Consulting Engineer,
1362 California St., Denver, Colo.
†Libby, Mark D., B. C. E., Lawyer, Kingman, Kan.
*Loring, Charles Sewall, B. M. E., Lewiston.
Merrill, George Perkins, M. S., Ph. D., Curator Dept. Geology U. S.
National Museum, Professor of Geology, Corcoran Scientific School,
Washington, D. C.
Meserve, John William, B. M. E., Assistant General Manager, The Brown
Hoisting & Conveying Machine Co., Cleveland, Ohio.
Moore, Arthur Lee, B. S., Insurance, Bangor.
†Morse, Charles Adelbert, C. E., Assistant Engineer, Atchison, Topeka
& Santa Fe R. R., Mo.
Potter, Frederick David, B. M. E., Manager of the F. D. Potter Co.,
39 Cortlandt St., New York, N. Y.
*Shaw, Alton Jhacellous, B. M. E., Muskegon, Mich.
Vinal, Percia Ann, M. S., (Mrs. Albert White), Orono.
†Warren, George Otis, B. S., FarmerFryeburg.†Webster, Herbert, B. S., Nurseryman,

1880.

†Atwood, Horace Wood, B. S., D. V. S., Real Estate Broker,
Brockton, Mass.
Bartlett, James Monroe, M. S., Chemist of the Agricultural Experiment
Station of the Maine State College,Orono.
Brown, Albert Hinckley, B. S., Manager Oldtown Branch of the Eastern
Trust & Banking Co., Bangor, Me.,Oldtown.
†Davis, Marcia, B. S., (Mrs. Joseph D. Stevens), Denver, Colo.
†Elliot, Fred Burton, B. S., Farmer and Stock Breeder, Bowdoin.
*Farrington, Sarah Perkins, B. S., (Mrs. Geo. P. Merrill),
Washington, D. C.
Fernald, Charles Wilbur, B. S., Merchant and Lumberman, . South Levant.
Fickett, Fred Wilden, M. S., Attorney at Law, Galveston, Texas.
Lufkin, George William, B. C. E., Assistant Engineer, Wilmington and
Northern R. R., Coatesville, Pa.
†Mansfield, Frank Albert, M. S., B. D., Clergyman Boston, Mass.
Matthews, Annie Amelia, B. S., Teacher, Stillwater.
†Murray, Henry Wilson, B. C. E., Farmer and Teacher, Napa, Calif.

19 Maple St., Bath.

1881.

Andrews, Henry Harris, M. E., Bank Cashier, Callaway, Neb. Brown, Henry William, M. S., Professor of Metaphysics and Science,

New Hampton Literary Institution,
Buck, Clara Louise, B. S., (Mrs. Thos. W. Hine,) Phoenix, Arizona.
Colburn, Fanny Eliza, B. S., (Mrs. Arthur L. Fernald,) Teacher,
2219 Capitol Ave., Omaha, Neb.
Farrington, Edward Holyoke, M. S., Associate Professor of Dairy Hus-
bandry, University of Wisconsin,
Farrington, Oliver Cummings, M. S., Ph. D., Curator of Geology, Field
Columbian Museum, Chicago, Ill.
†Fogg, Charles Henry, B. C. E., Civil Engineer, Greensburg, Pa.
Ingalls, Aldana Theodoro, B. C. E., Mining, Winston, Mont.
*Johnson, Robert John, B. C. E.,Butte, Mont.
[†] Libby, Clara Alice, B. S., Millinery and Fancy Goods,Augusta.
[†] McIntyer, Horace Flanders, B. M. E., Miller,Waldoboro.
[†] Moor, Charles Lincoln, B. C. E., Book-keeper, Hartland.
*Murray, Benjamin Franklin, B. C. E, Stillwater.
Osborn, Edwin Winthrop, B. C. E., Chief Clerk General Superintendent's
Department, Northern Pacific Railroad, St. Paul, Minn.
Pease, Oscar Leroy, B. S., Agent W. F. & Co's., Express and S. P. Co.
Gila Bend, Ariz.
Plaisted, Harold Mason, M. E., Patents, Trade-marks, & Infringements,
724 Commercial Building, St. Louis, Mo.
Ring, Alice Isabel, B. S.,
Ring, Mary Lillian, B. S. (Mrs. H. H. Andrews,) Callaway, Neb.
*Smith, Roscoe Loring, B. S.,Lewiston.
Sturtevant, George Washington, B. C. E., Civil Hydraulic Engineer,
Y. M. C. A. Building, Chicago, Ill.

	• • •		'
Wade, Frank Swan, B. S., M. D., Physician & Surgeon	۱,		
Ν	ew Richn	nond,	Wis.
*White, Walter Adelbert, B. C. E., LL. B.,		. Neu	port.
*Wilson, John Barrows, B. S.,		0	rono.
Wyman, Levi Augustus, B. C. E.,	hland P ar	k, Ce	ulif.

1882.

Bickford,	Charles	Swan, B	. s., s	ecretary,	The Swai	and and	Sibley	Со.,
Whole	sale Gro	$cers, \ldots$					$\dots Be$	lfast.
+Boynton,	Jacob L	eighton,	в. ѕ.,.				Lynn, I	Mass.
Browne, C	harles '	Weston I	Iopkins	s, B. M. I	E., Acting	Exa	niner (J. S.
Patent	Office.				<i>T</i>	acoma	Park, I	D. C.

Buzzell, Stephen Jennings, B. C. E., City Engineer, Oldtown. [†]Dunton, Oscar Howard, M. E.,.... Cincinnati, O. Flint, Walter, M. E., Professor of Mechanical Engineering, Maine State College, Orono. Fuller, George Ripley, B. S., Attorney at Law, South West Harbor. Garland, Charles Clinton, B. S., Financial Broker, 413 Butler Exchange, Providence, R. I. Hine, Thomas Walton, B. S., Vice President and Manager of the Maricopa Loan and Trust Company Phoenix, Ariz. Howard, Will Russell, B. S., Manufacturer, Belfast. Hurd, Alonzo L., B. S., M. D., Physician, Somers, Conn. *Keith, Alfred Justin, B. C. E., Shoe Manufacturer, Oldtown. Kimball, Frank Issacher, C. E., Superintendent Ocean Coal Company, Herminie, Pa. Patten, James Herbert, B. S., M. D., Physician, Amherst. Reed, Frederick Martin, B. M. E., Draftsman, Providence, R. I. Snow, Gleason Cyprian, B. S., Farmer...... North Orrington. Starrett, Avery Palmer, B. S., Market Gardening, Warren. [†]Todd, Frank Herbert, B. C. E., Water Board, Boston, Mass. Webster, Eben Crowell, B. S., Treasurer, The Webster Paper Company, Orono. Wight, Willard Alberto, B. C. E., Superintendent Gas and Electric Light Works,..... Trinidad, Colo. Woodward, Daniel Carr, M. E., Draftsman,

24 Arlington Street, Lynn, Mass.

1883.

†Cain, James Henry, B. S.,.....Orono. Cilly, Jonathan Vernet, B. C. E., Inspector General of Railroads,

Buenos Ayres, Argentine Republic, S. A. Emery, Frank Edwin, M. S., Associate Professor of Agriculture, North Carolina College of Agriculture and Mechanic Arts, and Agriculturist to the North Carolina Experiment Station, Raleigh, N. C. Fernald, Arthur Liddell, B. S., Commercial Salesman,

2219 Capitol Avenue, Omaha, Neb. Kelleher, Bartholomew Patrick, B. S., M. D., Physician, Orono. Merrill, Lucius Herbert, B. S., Chemist of the Agricultural Experiment Station of the Maine State College, Orono. Michaels, Janie Chase, B. S., M. S., Teacher, Orono. Michaels, Janie Chase, B. S., M. S., Teacher, Orono. Michaels, Janie Chase, B. S., M. S., Teacher, Orono. Yeatten, Charles Ward, B. C. E., Civil Engineer, Oldtown. †Patten, Truman Miller, B. C. E., Civil Engineer, Sioux Falls, S. D. Powers, Harry Wilson, B. S., Confectioner, 2019 Washington Street, Boston, Mass.

31

1884.

Allen, George Herman, B. S., Lawyer,
*Burleigh, Will Hall, B. C. E., Vassalboro.
*Conroy, Mary Francis, B. S., (Mrs. A. R. Saunders), Pulman, Wash.
Cutter, Leslie Willard, B. C. E., Contractor and Builder Bangor.
Fernald, Harriet Converse, M. S., Librarian of the Maine State College,
Orono.
Hatch, Elmer Ellsworth, B. S., Sheep Raiser, Hathaway, Mont.
Hill, John Edward, B. C. E., In charge of survey, La Crosse, Black River Falls, and Neilsville, Electric Railroad,
Kelley, Joseph Grant, C. E., Consulting Engineer,
Ladd, Edwin Fremont, B. S., Professor of Chemistry, North Dakota Agricultural College and Chemist of the Agricultural Experiment Station,
Lunt, Clarence Sumner, B. C. E., Managing Editor "Commercial," Bangor.
Stevens, Fred Leroy, B. S., V. S., Veterinary Surgeon, Farmington.
Webber, William, N. E., Merchant, Guilford.

1885.

†Chamberlain, George Walter, B. S., Principal Grammar School, Augusta.
Dole, Asher, B. C. E., Civil Engineer, Superior, Wis.
†Dutton, Orion Jesse, B. S
Fernald, Henry Torsey, M. S., Ph. D., Professor of Zoology, Pennsyl-
vania State College, State College, Pa.
Goodridge, Elmer Orland, M. E., Chief Engineer, Haverhill Div. Lowell,
Lawrence & Haverhill St. Railway, Bradford, Mass.
Hanscom, George Loring, B. S., Clergyman, New Hampton, Iowa.
Hart, James Norris, C. E., Professor of Mathematics and Astronomy,
Maine State College, Orono.
†Hull, Frank Eugene, C. E., Civil Engineer, Bangor & Aroostook Rail-
road,
Keyes, Austin Herbert, B. C. E., Principal High School,Auburn, R. I.
Morey, William, Jr., B. C. E., Examiner of Surveys, General Land
Office, Washington, D. C.
Moulton, Joseph Perkins, B. S., Farmer,
Paine, Leonard Gregory, M. E., Agent State Engraving and Manufac-
turing Co.,Portland.
†Pennell, Elmer Ellsworth, B. M. E.,
Riggs, Louis Warner, B. M. E., Ph. D., Instructor in Chemistry and
Physics, Medical Department, University of the City of New York,
• 414 East 26th St., New York, N. Y.
Russell, Fremont Lincoln, B. S., V. S., Veterinarian of the Agricultural
Experiment Station of the Maine State College, Orono.

1886.

Allen, Bert John, B. C. E., Principal of Pratt Free School,

+Aver Losiah Murch B C E

Tryci, bostan mutch, D. C. E., Assistant Engineer, Doston and Maine
R. R., Somerville, Mass.
Barker, George Greenleaf, B. M. E., Bicycle Fittings and Sundries,
47 W. Washington St., Chicago, Ill.
Black, George Fuller, C. E., Assistant Engineer, M. C. R. R., Portland.
†Blagden, John Decker, B. C. E., Observer, U. S. Weather Bureau,
Wood's Holl, Mass.
†French, Heywood Sanford, C. E., Civil Engineer, Newtonville, Mass.
Graves, Edwin Dwight, C. E., Civil Engineer, Berlin Iron Bridge Co.,
East Berlin, Conn.
Jones, Ralph Kneeland, B. S., with Theodore Metcalf Co., 39 Tremont
St., Boston, Hotel Oxford, Boston, Mass.
Lenfest, Elmer, B. C. E., Surveyor, Snohomish, Wash.
†Lockwood, James Frederick, M. E., Chief Draftsman, Otis Brothers
& Co., New York, N. Y.
Lull, George Frederick, M. S., Chemist to Penobscot Chemical Fibre Co.,
Great Works.
Merriam, Willis Henry, B. C. E., Lawyer,
Third Floor of "The Rookery," Spokane, Wash.
[†] Merritt, Elmer Ellsworth, M. E., Merchant, Salt Lake City, Utah.
Page, Arthur Dean, C. E., Assistant Engineer, Great Northern R. R.,
St. Paul, Minn.
†Ray, Irving Burton, B. C. E., Merchant Boston, Mass.
Twombly, Sydney Smith, B. S., V. S., Veterinarian and Orange Grower,
Fullerton, Calif.

1887.

[†] Burleign, John Henry, B. C. E.,
Cilley, Louis Vernet Prince, C. E., on 2nd Commission of limits between
the Argentine Republic and Chilli, Cordilleras de los Andes, S. A.
Clark, Bertrand Elmer, M. S., Lawyer, Bar Harbor.
Coffin, Edwin Voranus, B. C. E., Clerk, Harrington.
Colby, David Wilder, B. S., Instructor in Chemistry, Maine State College,
Orono.
Hicks, Alice Albur, M. S., (Mrs. Geo. F. Black), Portland.
Lazell, James Draper, B. M. E., with the Fawcette Ventilated Fire-proof

Columbia, Mo. Merrill, Fenton, B. C. E., Lumberman, Laurence, Wash. Saunders, Addison Roberts, M. E., Professor of Mechanical Engineering, Washington Agricultural College, Pullman, Wash.

77

North Middleboro, Mass.

Assistant Engineer Boston and Maina

	37 Crescent St., Portland.
Webb, Howard Scott, B. M. E., Instructor in S	Shop Work, Maine State
College,	Orono.
Williams, John Sumner, B. S., LL. B., Lawye	r and Collector Internal
Revenue,	Guilford.

1888.

Andrews, Hiram Bertrand, B. C. E., Assistant Engineer, West End St.	
Railway Co., 439 Albany St., Boston, Mass.	
*Batchelder, George Stetson, B. M. E.,	
Blanchard, Charles DeWitt, B. C. E., with New England Sulphite Diges-	
ter Co.,	
Boardman, John Russell, B. S., Student, Theological Seminary, Bangor.	
Brick, Francis Stephen, M. S., Principal Powers Institute,	
Bernardston, Mass.	
Butler, Harry, B. S., M. D., Physician,	
Campbell, Dudley Elmer, C. E., Instructor Townsend Industrial School,	
18 Newport Ave., Newport, R. I.	
Eastman, Fred Langdon, M. E., Draftsman with General Electric Co.,	
208 South Common St., Lynn, Mass.	
Ellwell, Edward Henry, B. S., Journalist, Portland Daily Press, Portland.	
Hancock, William Jerome, M. S., Professor of Chemistry & Biology,	
Antioch College, Yellow Springs, Ohio.	
Hatch, John Wood, M. S., Pastor M. E. Church,	
Howes, Claude Loraine, M. E., Engineer for City of Boston,	
42 West Newton St., Boston, Mass.	
Lincoln, Harry Foster, B. S., Assistant Superintendent and Electrician	
of Blackstone Valley St., Railway Co., Millbury, Mass.	
Lord, Thomas George, M. S., Farmer,	
Marsh, Ralph Hemenway, B. S., M. D., Physician,	
*Miller, Seymore Farrington, B. C. E., Burlington.	
†Philbrook, William, B. C. E., Washburn Shop, Polytechnic Institute,	
Worcester, Mass.	
+Rogers, Seymour Everett, B. M. E., with National Pump Co.,	
Denver, Colo.	
Seabury, George Edwin, B. M. E., Draftsman, Hinckley & Egery Iron	
Co., 289 French St., Bangor.	
†Small, Frank Llewellyn, B. M. E., Engineer in charge of H. & O. P.	
BIERailroad,	
Smith, Frank Adelbert, C. E., City Engineer, St. Cloud, Minn.
Wilson, Nathaniel Estes, M. S., Professor of Agricultural Chemistry, Nevada State University and Chemist to Experiment Station,

Reno, Nev.

1889.

Briggs, Fred Percy, B. S., Farmer, Scarboro.
Cushman, Charles Granville, B. M. E., Engineer for Stringer & Co.,
351 Adams St., Brooklyn, N. Y.
Edgerly, Joseph Willard, B. C. E., Farmer, Princeton.
Ferguson, Jere Sweetzer, M. S., M. D., Instructor, University of the
City of New York, New York, N. Y.
Freeman, George Gifford, B. S., Supervisor of Schools, Cherryfield.
Gay, George Melville, B. S., Clerk, Damariscotta.
Haggett, Eben Raymond, B. S., Lumber,
518 East Pratt St., Baltimore, Md.
Leavitt, Nell Louise, B. S., Photographer, Deer Lodge, Mont.
Reed, Nellie Waterhouse, B. S., Stillwater.
*Stevens, Fred, B. M. E., Winter Harbor.
Vickery, Gilbert Scovil, B. C. E., City Engineer of Bangor, Bangor.
*White, Mark Elmer, B. C. E., Ashland.
†Wilson, Mortimer Frank, B. S., Orono.

1890.

Harvey, Chandler Cushman, C. E., Editor and Publisher of The Beacon,
and Superintendent of Schools Fort Fairfield.
Hayes, Samuel Henry Tewksbury, M. S., Chemist for Condensed Milk
Co., New York City, Deposit, N. Y.
Heath, Everett Ferino, B. M. E., Merchant, Monmouth.
Kelley, Edward Havener, B. S., Newspaper Correspondent,
Washington, D. C.
* Keyes, George Edwin, B. M. E., Orland.
Leavitt, Hannah Ellis, B. S., (Mrs. Walter Flint), Orono.
Morey, Elmer Lake, B. C. E., United States Vice and Deputy Consul for
Ceylon,
+ Morrill, Edmund Needham, B. S., Portland.
+ Owen, John Wesley, Jr., B. C. E., with Engineering Dept. of West
End RailwayBoston, Mass.
† Pierce, John Varner, B. M. E., Draftsman, Chicago, Ill.
Pierce, William Bridgham, B. M. E., Lawyer, Bangor.
Pierce, William Barron, B. M. E., 136 West Newton St., Boston, Mass.
Pillsbury, George Melville, B. S., Superintendent of Sulphite Pulp Mill,
Lisbon Falls.
Quincy, Frederick Grant, B. M. E., Surveyor of land and lumber,
Bangor.
† Rackliff, Joseph Riley, B. C. E., Assistant Engineer, Chicago, Burling-
ton and Quincy Railroad, Mo.
Reed, Fullerton Paul, B. C. E., Sheep Raiser, Bellmont, Ariz.
Sawyer, Frank Wade, B. S., M. D., Physician, Everett, Mass.
Swan, Clarence Buzzell, B. M. E., Merchant, Oldtown.
Wallace, Chester Jay, B. C. E., Assistant Engineer, Metropolitan Water
Board, No. 3 Mt. Vernon St., Boston, Mass.
Webb, Winfield Scott, C. E., Principal of Grammar School, Houlton.
Wight, Ralph Holbrook, C. E., Civil Engineer, G. B. W. & St. P. R. R.,
Green Bay, Wis.
Williams, Charles Sampson, M. S., Division Supt. Gypsy Moth Commis-
sion, 21 Broadway, Arlington, Mass.

1891.

Arey, Ralph Jesse, C. E., Merchant, Prescott, Ariz. Bailey, William Melvin, B. C. E., Assistant Engineer, City of Medford,

No. 2 Chestnut Street, Medford, Mass.

Clark, Edmund, B. S., Assistant Chemist in the Health Department of the City of New York,

Chemist's Office, Criminal Court Building, N. Y.

Highway Commission, 15 Court Square, Boston, Mass.

Flanagan, John Henry, B. M. E., Postal Clerk, Rockland. Graves, Joseph Colburn, M. E., Draftsman, with Otis Bros. & Co., 38 Park Row, New York, N. Y. + Hall, Bert Austin, C. E., Merchant, Prescott, Ariz. Hamlin, Cyrus, B. S., M. D., House Obstretician, Maternity Brooklyn Hospital,..... Corner Raymond aud Dekalb Avenues, Brooklyn, N. Y. Keves, Prescott, Jr., B. C. E., Principal High School, Bar Harbor. Kilbourne, Charles Herbert, B. S., City Milk Inspector, 178 West 97th St., New York, N. Y. Lord, Robert William, B. M. E., Plumbing and Steam Heating, Pittsfield. [†]Menges, Hugo Gustave, B. M. E., Inspector of Sewers, Somerville, Mass., Corner Winchester Ave. and Newburn St., Medford, Mass. [†]Merrill, True Lander, B. M. E., Lumberman, Laurence, Wash. Moulton, Fred Charles, B. S., Chemist, Agricultural Experiment Station, Maine State College, Orono. Patten, William Nickels. B. C. E., Chief Draftsman for I. H. Bickford, Starrett, Henry Vaill, B. S., Market Gardening, Warren. Steward, John White, B. M. E., Manufacturer, Skowhegan. Taylor, Charles Norton, B. C. E., Superintendent of Sewerage Construction, 125 West Central St., Natick, Mass. Thompson, George Edward, B. C. E., Assistant Engineer, Bangor and Valentine, William Alton, B. M. E., Draftsman with J. Henry Mitchell, 2018 Brandywine St., Philadelphia, Pa.

1892.

†Atherton, George Frederic, B. C. E., Cape Elizabeth.		
Atkinson, William Hacker, B. C. E., Draftsman for C. R. Makepeace &		
Co., Mill Engs. & Architects, 101 Chestnut St., Providence, R. I.		
Bristol, Mortimer Leonard, B. M. E., Draftsman, Colt's Armory,		
Hartford, Conn.		
Butterfield, William Rowe, B. C. E., with French and Bryant, Civil		
Engineers,		
Clark, Roscoe Conkling, B. M. E., Draftsman, Edgar Tomson Steel		
Works, Bessemer, Pa., Lock Box 263, Braddock, Pa.		
Danforth, Ernest Wilbur, B. C. E., Assistant Engineer, City of Somer-		
ville, Ave., Somerville, Mass.		
Doolittle, Herbert Edward, B. C. E., Merchant, Famaroa, Ill.		
Farrington, Mellen Edward, B. M. E., Draftsman, Penobscot Chemical		
Fibre Company, Great Works.		
Fernald, Robert Heywood, B. M. E., Assistant in Mathematics and		

Mechanical Engineering, Case School of Applied Science,

26 Cornell Street, Cleveland, O.

Gibbs, John Clinton, B. M. E., Principal High School, Steuben.

Grover, Arthur Curtis, B. C. E., Assistant City Engineer,Rutland, Vt.
Healey, Warren Evans, B. M. E., with Glencoe Lime and Cement Co.,
502 Odd Fellows Building, St. Louis, Mo.
Holden, William Cross, B. M. E., Director of Manual Training Depart-
ment, High School, Lynn, Mass.
Maguire, George, C. E., Assistant Engineer, Cambridge Water Works,
Hobbs Brook Basin, Waltham, Box 151, Waltham, Mass.
Randlette, Charles Maurice, B. S., Medical Student,Richmond.
Timberlake, Stanley Milton, C. E., Surveyor and Draftsman, Mutual
Association Fire Insurence,
Tolman, Frank Stevens, B. C. E., Insurance Agent, Bangor.
Tyler, Joseph Albert, B. C. E., Assistant Engineer, City Engineer's
Office, Portland, 19 North Street, Portland.

1893.

Buck, Hosea Ballou, B. C. E., Draftsman, with E. S. Coe, Bangor,
Columbia Building, Bangor.
Crosby, Walter Wilson, B. C. E., Resident Engineer, Portland and Rum-
ford Falls Railroad Gardiner.
Gannett, Charles Henry, B. C. E., City Engineer,
Hutchinson, George Weymouth, B. C. E, Assistant Engineer, Greens-
burg Coal Company Greensburg, Pa.
Jack, Walter Dows, B. S., Assistant Chemist in Laboratory of Agricul-
tural Experiment Station, Maine State College, Orono.
Kittredge, Charles Prentiss, B. S., Student at Newton Theological Semi-
nary, Newton Center, Mass.
Lewis, Hugh McLellan, B. C. E., Civil Engineer, South Berwick.
Murphy, Charles Clark, B. C. E., Inspector of Sewer Construction,
Medford, Mass.
Rowe, George Freeman, B. M. E., Night Superintendent, Katahdin Pulp
and Paper Company,Lincoln.
Shaw, Orrin John, C. E., Assistant to City Engineer, Medford,
68 Washington Street, Medford, Mass.
Smith, Harry Meaubec, B. M. E., Partner in the Geo. W. P. Jerrard
Seed Company, Caribou.
Webster, John Milton, B. S.,
Whitney, George Ansel, B. M. E., Hardware Merchant, Lewiston.
Williams, Hiram, B. S., Medical Student University of New York,
150 East Twenty-eighth Street, New York, N. Y.

1894.

Room 3, Boston and Albany Depot, Boston, Mass.

Cowan, George Parker, B. C. E., Teacher in High and Grammar Schools,
128 Essex St., Bangor.
Durham, Leroy Tolford, B. C. E., Surveyor, Boston and Albany R. R.,
Room 3, Boston and Albany Depot, Boston, Mass.
Gilbert, Charles Edward, B. M. E., Engineer for Katahdin Pulp & Paper
Company, Lincoln.
Gould, Frank Gilman, B. C. E., Assistant City Engineer, Bangor, Orono.
Gray, Jesse Alexander, B. S., Travelling for Bickmore Gall Cure Co.,
Oldtown.
Hall, George Harry, B. M. E., Draftsman with Builders Iron Foundry,
Providence,
Harvey, James Elmore, B. M. E., Member of Firm of William Harvey
& Sons,Readfield.
Hayes, Augustus Daniel, B. C. E., City Engineer, Belfast,
185 High St., Belfast.
Jose, Wallace Hight, B. S., Travelling Salesman for Diamond Glue Co.,
38 Pearl St., Boston, Mass.
Jordan, Alva Thomas, B. S., Assistant in Horticulture, New Jersey State
Experiment Station, New Brunswick, N. J.
Kimball, James Mayberry, B. C. E., Post Graduate Student at Maine
State College,
Murray, Herbert, B. S., Mining, Bolinas, Calif.
Norwood, Leon Orlando, B. C. E., with Rumford Falls and Rangeley
Lakes R. R. Co.,
Rumball, George Washington, Jr., M. E., Manufacturing,
40 Lincoln St., Boston, Mass.

Wood, Edward Butler, B. M. E., Draftsman with Lockwood Green & Co., 131 Devonshire St., Boston, .. 19 Cottage St., Cambridgeport, Mass.

Atwood, Gustavus Gilbert, B. C. E., South Carver, Mass.
Boardman, Harold Sherburne, B. C. E., Graduate Student of Massachu-
setts Institute of Technology,
Buck, Alfred Howard, B. M. E., Contractor for General Electric Work,
Foxcroft.
Calderwood, Isaac Glidden, B. C. E., Inspector of Sewer Construction,
Malden, Mass.
Chase, Wendell Wyse, B. C. E., Instructor in Drawing, Maine State
College,Orono.
Damon, Frank, B. S., Instructor in Physics, Maine State College, Orono.
Ellis, Merton Eugene, B. M. E., Guilford.
Folsom, LeRoy Rowell, B. S., Principal of Hampden Academy, Hampden.
Frost, Charles Albert, B. C. E.,
Grover, Oscar Llewellyn, B. M. E., in City Engineer's Office, Medford,
5 Dearborn St., Medford, Mass.
†de Haseth, Gerardus Andries, B. C. E., Curacao, W. I.

92 Weir St., Taunton, Mass.

CATALOGUE OF NON-GRADUATES.

* indicates deceased, and † indicates not heard from.

1872.

Bowler, John T., Register of Deeds, Bangor.
†George, William Harvey.
Norton, Charles Carroll, Rancher and Cattle Raiser,
Buffalo Meadows, Nev.
†Oleson, William Brewster, Clergyman and Principal Training School,
Honolulu.
+Sargent, Oren Shaw, M. D., Physician, Lawrence, Mass.
*Shorey, Marcus Peltiah, Oldtown.
+Watson, Benjamin Franklin, Farmer, Levant.

1873.

Clark, Joseph Eliot Payson, with the Werner Company (Book Business,)
1408 Fulton St., Chicago, Ill.
*Jackson, John,
Lane, Samuel, member of firm of Lane & Pearce, Dry Goods, Houlton.
Lovejoy, Wilbur Fremont, Supt. of Tanneries, Lincoln.
*Pease, Thomas Perley, Bridgton.
†Pullen, Clarence, on Editorial Staff New York Sun, New York, N. Y.

*Burnham, Mark Emery,	Garland.
*Curtis, Roland, M. D.,	Bowdoinham.
*Moore, Samuel Campbell,	Cherryfield.
†Osgood, Charles Frederick, Farmer,	Garland.
*Reed, William Henry,	Springfield.
Trickey, George Irving, President & Treasurer, Aroostook 7	Frust & Bank-
ing Co.,	Caribou.
Wood, William Ireland, Lawyer,	Corinna.

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1875.

Blossom, Leander Huzzy, Farmer Turner.
Gage, George Newton, M. D., Physician, East Washington, N. H.
*Ham, BensonBridgewater, Mass.
Jackson, Manley, Organ and Sewing Machine Business, Chelsea, Mass.
Jones, Freeland, Real Estate, Bangor.
Soule, Sidney Smith, Farmer,
*Spratt, George Wilbur,Bangor.
†Spring, Charles Herbert, Wool grower,
Buenos Ayres, Argentine Republic, S A.

1876.

Bacon, Francis Henry, Architect,
+Gurney, Frank Parish, Farmer, Brookharen, Miss.
*Hazeltine, Frank AdlamDexter.
Hopkins, Eugene L., Traveler for Frye Bushn Co. (Pork and Beef Pack-
ers,)1508 Randolph St., Seattle, Wash.
† Linnell, James Warren, Farmer, Exeter.
Moody, George Jameson, Attorney and Counsellor at Law,
209 Bank of Commerce Building, Tacoma, Wash.
+ Mudgett, Webster,Albion.
i mugett, webster,
Pillsbury, Edward Butler, Assistant Superintendent, Postal Telegraph
Pillsbury, Edward Butler, Assistant Superintendent, Postal Telegraph
Pillsbury, Edward Butler, Assistant Superintendent, Postal Telegraph Co.,220 Devonshire St., Boston, Mass.
 Pillsbury, Edward Butler, Assistant Superintendent, Postal Telegraph Co.,
 Pillsbury, Edward Butler, Assistant Superintendent, Postal Telegraph Co.,

[†] Andrews, Charles Frederic,Biddeford.
+ Bunker, Frederick Story, B. A., City Hospital, Boston, Mass.
* Chase, Edson Clifford, Stillwater.
† Dow, William Wheeler, Printer,
* Goud, Frank Herbert, Fort Fairfield.
Harvey, Austin Irving, M. D., Physician and Surgeon, Newport.
† Herring, Menzies Fessenden, Editor and Publisher, Dexter.
† Lovejoy, Ardean.
† Mallett, Fred Bartlett, Lumbering Business, Minneapolis, Minn.
† Partridge, Fred Lincoln,Stockton.
† Pullen, Fred Hubbard.
* Reed, Frank Radford, Springfield.
† Roberts, Woodbury Davis, Merchant, Cheney, Wyo.
Townsend, Henry Clay, Farmer, Fort Fairfield.

†Webb, Clara	Ella, Teacher,	Unity.
Wiggin, Fred	Sumner, Farmer,	Center.
† Whitney, W	illiam Butler,	· Iowa.

1878.

Benjamin, Charles Henry, M. E., Professor of Mechanical Engineering,
Case School of Applied Science, 89 Adelbert St., Cleveland, Ohio.
Berry, Eugene ManassehSumner.
Crocker, Nathaniel Appleton, Enfield.
Elwell, Charles Clement, C. E., Superintendent New England Railroad,
Norwich, Conn.
Hartwell, Howard Hampson, Granite Finisher, Montpelier, Vt.
Howe, Richard Scrope, Fryeburg.
Jameson, Samuel Carl, Merchant, Providence, R. I.
Leathers, Alva Willis, Dover.
Miller, Silas Niles, Fairplay, Colo.
Perkins, Frank Judson, Merchant, Oldtown.
Plumly, Charles Fremont, Merchant, Lincoln.
Richardson, John Oakes, Merchant, Oldtown.
stuart, Albert Harmon, Piano Manufacturer,
103 West Canton St., Boston, Mass.
Varriner, Edson,
Weeks, Erastus Gilmore,Jefferson.

1879.

Brown, Arthur Prentiss, Postmaster, Bradley.
Clergue, Francis Hector, President Sault Ste. Marie, Pulp & Paper Co.,
Sault Ste. Marie, Mich.
Colburn, Fred Alden, Commercial Salesman, Minneapolis, Minn.
Cousins, James William, Merchant, Stillwater.
+Curtis, John Andrew, Civil Engineer,Delta, Colo.
Goodale, Loomis Farrington, Chief Engineer, Hannibal & St. Joseph R.
R. Co., St. Louis, Keokuk & North-Western R. R. Co., Kansas City,
St. Joseph & Council Bluffs R. R. Co., and Chicago, Burlington
& Kansas City R. R. Co., St. Joseph, Mo.
Hawes, Edwin Augustus, Building Contractor, Pasadena, Calif.
*Johnson, Edwin Clinton, Gorham.
Jones, Oliver Leslie, Farmer, Corinna.
Knapp, John Nelson, Jr., Lumbering and Farming, Bradley.
+Merrill, Albert Young, Lawyer, Judge of Probate,Aitkin, Minn.
Morton, Asa Croxford, Bangor.
Peakes, Henry Wilson, Merchant, Charleston.
*Smith, Eugene Gardiner, Richmond.
+Titus, William Nelson, Lawyer, Boston, Woburn, Mass.
Webster, Howard Elmer, Lumberman, Orono.
Wellington, Arthur Lee, Rancher, Covina, Calif.

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1880.

Allen, Charles Morse, M. A., Instructor in Chemistry, Pratt Institute,
Pratt Institute, Brooklyn, N. Y.
*Buswell, Ada M. L., Minneapolis, Minn.
Cheney, Charles Eastman, Tuner for M. Steinert & Sons Co., Portland,
517 Congress St., Portland.
+Cleveland, Woodbury Fremont, M. D., Physician, Eastport.
Fuller, Osgood Everett, with Akron Felt Works, Akron, Ohio.
+Goodwin, Harry Herrick, Editor, Dension, Tex.
Horton, John Bancroft, Secretary and Treasurer Western Supply Co.,
Lincoln, Neb.
Jones, Daniel Sherman, County Superintendent of Schools, also in Cattle
Business, Pruden, Colo.
*Nash, Charles William, Addison.
Oak, Willis Laurens, Book-keeper, Caribou.
Ramsdell, Emily Isabel, Photographer, Bangor.
*Randall, Mortier Clement, Stillwater.
+Rich, William J., Chemist, Cambria Iron Co.,Johnstown, Pa.
Simpson, Charles Sumner, County Surveyor and Civil Engineer,
Florence, Wis.
Spratt, Frank Allen, A. B., Principal of the Johnstown High School,
Olneyville, R. I.
Webster, Daniel, Jr., American Express Co., 15 Central St., Bangor.

1881.

1882.

Bartlett, Joshua Burr, Surveyor of Lumber, and Farmer, Ashland.
+Chapin, Charles Edward, Salesman, Boston, Mass.
[†] Dunn, Charles Lincoln, Farmer,Ashland.
Keniston, Frederick Andrew, Salesman, Brockton, Mass.
Kent, Frederick Otis, Teacher, Bremen.
Nason, Walter Herbert, M. D., Physician & Surgeon, Hampden.
+Page, Parker James, Boston, Mass.
*Poole, Henry KelseyBremen.
Tilley, Louis Kossuth, Farmer, Castle Hill.

1883.

Currier, George Russell, M. D., Clerk, War Department,
509 2nd. St., N. E. Washington, D. C.
Drummond, Arthur T., Farmer, Waterville.
Emery, William Edward, M. D., Surry.
Kelsea, Norman Fay, Travelling Salesman,
12 Pleasant Place, Brockton, Mass.
Kendall, Edward Perdy, Fertilizer Manufacturer, Miller and Farmer,
Bowdoinham.
*Longfellow, Henry Whitney, Machias.
*Murray, Charles Sumner, Va.
Rich, George Avery, B. A., on Editorial Staff "Journal," Boston, Mass.
Rich Everett Frost, Assistant Treasurer, Bangor Savings Bank,
172 Hammond St., Bangor.
Starbird, Ralph, Lumberman,10 California St., San Francisco, Calif.
+Webster, Frank Carr, Clerk, American Express Co., Lewiston.
Webster, Frank Gilman, Orono.
White, Louis Henry, M. D., U. S. Examining Surgeon for Pensions,
Lincoln Centre.

Savage, Elmer Americus, Manager Herendeen Manufacturing Co., 137 2nd St., Milwaukee, Wis. † Smith, Charles F., Real Estate Dealer,.....Boston, Mass. * Trueworthy, Horace Griffin,....Orono. * Whipple, Jotham, Jr.,Solon.

1885.

Butler, Frederick Heywood, C. E., Civil Engineer, Bangor & Aroostook
R. R.,
Davis, Harry Wilbur, Cashier First National Bank, Guilford.
Hill, Samuel Warren, Master Mariner, Machias.
+ Libby, Willard A., Clerk, Denver, Colo.
* Manter, Frank Ellsworth, Milo.
† Merrill, Dennis D., Steam Laundry, Auburn.
+ Prince, Carl Hersey, Farmer, Turner.

1886.

Merriam, Charles Herbert, Attorney at Law, *Rookery Building, Spokane, Wash.* Moor, Dudley Watson, Jr., Real Estate, Loans and Insurance, *Toledo, Ohio.*

1887.

Benjamin, Alice,	Oakland.
Clark, Irving Mason, Civil Engineer, Homestead I	ron Works,
	Homestead, Pa.
* Harris, William John,	Groton, Mass.
Houghton, Austin Dinsmore, General Manager Furnace Co.,	
Ruth, Alfred Smith, City Engineer,	Olympia, Wash.
Sherburne, William Percival, Foreman of shipping ing's Perfection Dye Manufactory, Foxcroft,	
† Tucker, Frank Lincoln, Farmer,	Andover, Mass.
Wentworth, Charles Williams, Principal City Gran	mmar School,
	Westbrook.
† Young, Rodney Albert Buxton,	Baltimore, Md.

Buker, Albion Henry,	44 Tremont St., Boston, Mass.
†Chamberlain, James Kent, Sanitary Engi	neer, Guilford.
*Collins, Frank Percy,	Fort Fairfield.
Lord, Edwin Byron, Publisher,	3 Globe Building, Boston, Mass.
Marsh, Alfonso Frank, Druggist,	Oldtown.

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Page, Frank Jackson, Merchant, Orono
Perkins, Henry Fred, Baggage Master, Oakland
Rolfe, Charles Callamore, Farmer, Maysville Center.
†Sargent, Abram Woodard, Superintendent Parlor Car Department, N.
Y. & Hudson River R. R., Grand Central Depot, New York, N. Y.
True, Joseph Sumner, Merchant, Intervale.
Trumbull, Ernest H., Farmer, St. John, N. B.

1889.

Clark, Benjamin R., Merchant,	Haverhill, Mass.
Fernald, Gardiner George,	
*Folsom, Arthur Melville,	Oldtown.
Gould, Charles Benjamin, Merchant,	Caribou.
Greenwood, Elmer E.,	
Leavitt, Cora Annie (Mrs. Frank L. Parker),	
Lyford, Albert Lewis, Principal Commercial Departm levan Seminary,	ent, Maine Wes-
*Matthews, Maude Arnold,	Stillwater.
Rogers, Clara, Assistant, Hampden Academy,	
Sargent, William Henry, Book-keeper,	South Brewer.
Tripp, Norman, Traveling Salesman,	Helena, Mont.

1890.

+Cargill, Carroll David, Livermore Falls.
Dillingham, Charles Albert, Merchant, Oldtown.
Hastings, Albert Mills, Traveling Salesman for The Sprague & Hathaway
Co., West Somerville, Mass., Rockland.
Jones, Leon Houston, Draftsman,
Kenniston, Irving Chase, Sheep Raiser, Ash Fork, Ariz.
+Lewis, John W., Clerk, Newburyport, Mass.
*Rowell, Herbert, St. Paul, Minn.
+Webber, Gilman Hodgdon, Book-keeper, Boston, Mass.

1891.

†Andrews, Arthur Willington, Saco.
Boadway, Leslie Albert, Merchant,
Davis, James Walker, Civil Engineer, L. S. & M. S. R. R., La Porte, Ind.
+Fernald, Henry E.,Brunswick.
[†] Fuller, Robert Warren, Principal Grammar School, Natick, R. I.
+Hodgdon, Edwin Wyman, Druggist, Whitinsville, Mass.
+Hodgkins, Byron Cony, Clerk, Stillwater.
†Jackson, Joseph Maddocks, Electrical Engineer, Boston, Mass.
Merrill, Edwin Reuel, M. E., Head Draftsman, Mining Department, The
Jeffrey Manufacturing Co., 1271 Hunter St., Columbus, Ohio.

Ailler, Albert Morton, Newspaper Business, Waldoboro.
Morris, William Allen, Bangor.
ackard, Robert Messer, New England Telegraph & Telephone Co.,
Rockland.
Pillsbury, Clifford Irving,
Scott, Clarence, Lawyer, Oldtown.
firrill, Leonard Alexander, Draftsman for E. E. Winkley, Electrical and
Mechanical Engineer,
Webster, Alden Palmer, with The Webster Paper Co.,Orono.

1892.

Bailey, George Albert, Machinist, 272 Dudley St., Roxbury, Mass.
Bourne, Frank Augustus, S. B., Mass. Institute Technology, Boston, Mass.
Clergue, Bertrand Joseph, Sault Ste Marie, Mich.
Clifford, Edwin True, Superintendent of Schools, Winthrop.
Cobb, Charles Edward, Engineer, P. & S. R. R., Patten.
Hamilton, George Curtis, Brakeman on Maine Central R. R., Dexter.
Hatch, Ernest Stearns, Carpenter & Builder, Lovell Center.
Hersey, Jacob Frye, Clerk, Patten.
†Mckechnie, Willard Erastus, Princeton.
Nealley, Calvin Henry, Clerk, Casco National Bank,
34 Deering Ave., Portland.
Prentiss, Harry Mellen, Railway Postal Clerk, Belfast.
+Prince, Job, Farmer,
Rich, George Frank, LL. B., Judge of Police Court, Berlin, N. H.
Williams, Laforest Charles, Principal Somerset Academy, Athens.

1893.

*Alexander, James Almore, Richmond.
Alford, Abbott Edwin, Draftsman, Boston Blower Co.,
14 Central Ave., Hyde Park, Mass.
Atkinson, Timothy Ralph, Chief Engineer, Sebasticook & Moosehead
R. R.,Pittsfield.
Chapman, Clarence, Clerk, Bangor House, Bangor.
Cooper, Walter, Cooper & Co., Lumber and Mason Materials, Belfast.
†Hamlin, Edwin Thompson, Ithaca, N. Y.
Haynes, Charles Irving, Engineer, Washington Co. R. R., Bangor.
†Hammatt, William Cushing.
Jerrard, John F., Partner in firm The Geo. W. P. Jerrard Co., Seedsmen,
Caribou.
Johnson, Chesley Metcalf, 17 Bowdoin St., Boston, Mass.
Morris, John Richard, Retail Groceries,
Cor. Springfield and Washington Sts., Boston, Mass.
Robinson, Harry Orman, B. E. E., Division Engineer, Sewer Depart-
ment,

+Smith, Lizzie Louise,	••• Veazie.
Smith, Ralph Kendrick, Boston Journal, Bos	ton, Mass.
†Wilson, Pearly Rupert,	Solon.
†Young, Thomas Jefferson, Lawyer,	· · Athens.

1894.

*Blagden, Judson Billings,	Bluehill.
*Bradford, Charles Frank,	
Fernald, Merritt Lyndon, Assistant in Herbarium, 1	Harvard College,
	Cambridge, Mass.
†French, Charles Frederick,	Glenburn.
Horne, Ralph Edwin,	Stillwater.
Ricker, John Hale, Rumball & Ricker, Eyelet Tool	Со.,
40 <i>Line</i>	coln St., Boston, Mass.

Achorn, Davis	Tillson,	· • • • • Ro	ckland.
Dolley, Harry	Adelbert, Draftsman, Hollingsworth & W	hitney	Paper
and Pulp Mil	ls,	···· Wat	erville.
French, Frank	Luther, Tool Maker for Eyelet Tool Co.,		
	60 Bowdoin St.		
Hincks. Charle	s Trask. Clerk with Nealev & Co.,	<i>E</i>	Bangor.

ALPHABETICAL LIST OF GRADUATES.

Name.	Address.	Class.
Abbott, Edmund,	148 Broadway, Providence, R	. I.,1876
Allen, Bert John,	North Middleboro, Mass.,	
Allen, George Herman,	93 Exchange St., Portland, M	le.,1884
Allen, Charles Plummer,	Presque Isle, Me.,	
	Attleboro, Mass.,	
	Callaway, Neb.,	
	d,439 Albany St., Boston, Mass	
	Prescott, Ariz.,	
• •	ick,Cape Elizabeth, Me.,	
	r,101 Chester St., Providence, I	
	Brockton, Mass.,	
	Somerville, Mass.,	
Babb Gaarge Harbort	009 High St. Doutlond Mo	1000
	2 Chestnut St., Medford, Mass	
	e,47 West Washington St., Ch	
barker, George Greenleal	Ill.,	
Bartlett James Munree	Orono, Me.,	
	son,	
	,Portland, Me.,	
	1431 Monadnock Bl'dg, Chicag	
	Belfast, Me.,	
	Rockland, Me.,	
	······ Cleburne, Texas, ······	
	······Portland, Me., ·····	
	ville,Dunmore, Pa.,	
	ey,Rockland, Me.,	
	Chicago, Ill.,	
	tt, Oldtown, Me.,	
-	ll, Bangor, Me.,	
0,	urne,57 Chandler St., Boston, Mas	
* Deceased.		,
Deceased.		

Name.	Residence.	Class.
Boardman, John	Russell,Bangor, Me.,	1888
	Irving,Hingham, Mass.,	
Bowler, Frank Co	olburn,148 Ohio St., Bangor, Me.,	1894
	Leighton, Lynn, Mass.,	
* Brainard, Charl	es M.,	1876
	ephen,Bernardston, Mass.,	
	cy,Scarboro, Me ,	
	Leonard, Hartford, Conn.,	
	inckley, Oldtown, Me.,	
Brown, Emma,	(Mrs. Charles	
	······Enfield, Me.,·····	
Brown, Henry W	., New Hampton, N. H.,	1881
Browne, Charles	-	
$kins, \dots$	······ Tacoma Park, D. C., ·····	1882
Buck, Alfred Hov	vard,	1895
Buck, Clara Louis		
Hine),	·····Phoenix, Ariz.,····	1881
Buck, Hosea Ball	ou,Room 2, Columbia Bld'g, Bango	or,
	Me.,	
* Buker, George	Haskell,	1876
	.,	
Burleigh, John H	lenry,Vassalboro, Me.,	1887
* Burleigh, Will H	Iall,	1884
Burns, Robert Br	ruce, Williams, Ariz.,	1877
	Bangor, Me.,	
	am Rowe, 334 Washington St., Brooklin	
	Mass.,	
Buzzell, Stephen	Jennings, Oldtown, Me.,	
	ry,Orono, Me.,	
	c Glidden, Malden, Mass.,	
	v James, 86 Liberty St., N. Y.,	
	Elmer	
	il Calvert, Enderlin, N. D.,	
	orge Walter,Augusta, Me.,	
	yse,Orono, Me.,	
	Vernet,Buenos Ayres, Argentine Republi	
emey, oonachan	S. A.,	
Cilley Louis Ver	net Prince, Cordilleras de los Andes, S. A.,	
*Clapp, Samuel F	Iervey,	1875
	Ilmer,Bar Harbor, Me.,	
	Safe Deposit B'ld'g, Seattle, Wash.	
	nkling,Braddock, Pa.,	
Clayton, Charles.		1891
Cohurn, Lewis Fa	urrin,Eureka, Cal.,	1875
	·····, ·····, ·····,	

Name.	Residence.	Class.
Coffin, Alphonso J	ohn,Philadelphia, Pa.,	
Coffin, Edwin Vora	nus,Harrington, Me.,	
Colburn, Fannie El		
L. Fernald),	2219 Capitol Ave., Omaha, Ne	eb.,1881
	er,Orono, Me.,	
Charlesworthy, Cha	arles Franklin Pendleton, Ore.,	
*Conroy, Mary Fra		
	enry,Room 3, Boston & Albany	
Cowan, Euwaru me	Boston, Mass.,	
Corren Elenence E		
,	Ielen,	
	rker, 128 Essex St., Bangor, Me.,	
	St. Paul, Minn.,	
	rey,St. Paul, Minn.,	
	lson, Gardiner, Me.,	
	Everett Charlestown, Mass.,	
	Granville,351 Adams St., Brooklyn, N. Y	
	Tomahawk, Wis.,	
	ard, Bangor, Me.,	
Cyr, Vetal,	Fort Kent, Me.,	
Dakin, Eugene H.,	Bangor, Me.,	
Damon Frank,	Orono, Me.,	
Danforth, Edward	Franklin,Skowhegan, Me.,	
	Vilbur, 21 Warren Ave., Somerville, 1	
Davis Marcia (Mrs.	J.D.Stevens), Denver, Colo.,	1880
	sk, Minneapolis, Minn.,	
Decrow, David Au	gustus, Lockport, N. Y.,	
Dike, James Edwa	rd, Orono, Me	
	r, · · · · · · · · · · · · · · · · · · ·	
	····· Superior, Wis., ·····	
	Edward, Tamaroa, Ill.,	
Dow, Fred Todd,	Pullman, Wash.,	
	on,Newport News, Va.,	
	ummond,Boothbay Harbor, Me.,	
	ward,Cincinnati, O.,	
	Frederic	
Durham, Leroy To	lford,Room 3, Boston & Albany	
	Boston, Mass.,	
Dutton, Orion Jess	se,Boston, Mass.,	
Eastman, Fred Lar	ngdon,208 South Common St., Lynn,	Mass.,1888
Eaton, Russell Will	iam,Brunswick, Me.,	1873
Edgerly, Joseph W	illard, Princeton, Me.,	
	Jerome,331 E. 16th St., Minneapolis, M	
Elliot, Fred Burton	,Bowdoin, Me.,	
* Decosed		

Deceased.

Name.	Residence.	Class.
Ellis, Merton Euge	ene,Guilford, Me.,	
	nry, Portland, Me.,	
Emery, Alicia Tow	мОгопо, Me.,	
	vin, Raleigh, N. C.,	
	Melvin,Orono, Me.,	
	Manly,1436 Chapin St., Washington	
Farrington, Edwar	d Holyoke, University of Wisconsin, 1	
	Wis.,	
	e Parker, · · · · · Portland, Me., · · · · · · · · · ·	
	Edward,Great Works, Me.,	
Farrington, Oliver	Cummings,Chicago, Ill.,	
* Farrington, Sar		
	rill),	
	e Rider,Honolulu, Sandwich Ids.,	
	n Rowe,15 Court Square, Boston, M	
	eetzer,New York, N. Y.,	
	dwin,Whittier, Cal.,	
	ddell,2219 Capitol Ave., Omaha, N	
	ilbur, South Levant, Me.,	
	verett,Wilmette, Ill.,	
	Converse,Orono, Me.,	
	rsey,State College, Pa.,	
	eywood,26 Cornell St., Cleveland, O	
	en, Galveston, Texas,	
	enry,Rockland, Me.,	
	Orono, Me.,	
	ry, Greensburg, Pa.,	
	well,	
	,	
	Gittord, Cherryfield, Me.,	
	Sanford, Newtonville, Mass., ert, Monmouth, Me.,	
· · · · · · · · · · · · · · · · · · ·	ley, Southwest Harbor, Me.,	
. 0 -		
	Ienry, Augusta, Me.,	
,	linton,413 Butter Ex'ge, Providenc	, ,
	lle, Damariscotta, Me.,	
	Ierbert, Deering Center, Me	
	ngate,Ophir, Colo.,	
	n,Steuben, Me.,	
	lward, Lincoln, Me.,	
	ontgomery,Waltham, Mass.,	
	Orlando, Bradford, Mass.,	
Gould, Annie M.	(Mrs. L. F.	
Goodale),	St. Joseph, Mo.,	

^{*} Deceased.

Name.	Residence.	Class.
Gould, Benjamin Flint, H		
Gould, Frank Gilman,		
Gould, George Pendleton,2		
Gould, Joseph French,		
Gould, Samuel Wadsworth,S	, ,	
Graves, Edwin Dwight,E	0	
Graves, Joseph Colburn,		
Gray, Jesse Alexander,		
Grover, Arthur Curtis,		
Grover, Nathan Clifford,		
Grover, Oscar Llewellyn,5		
Gurney, John Irvine,		
Haggett, Eben Raymond,5	18 East Pratt St., Baltimore, Md	l., 1889
Haines, William Thomas,	Vaterville, Me.,	1876
Hall, Bert Austin,	rescott, Ariz.,	1891
Hall, George Harry, 2	3 Hammond St., Providence, R. 1	[., 1894
Hamilton, Harry Fairfield,1	25 Marlboro St., Boston, Mass., -	1876
Hamlin, Cyrus, H	rooklyn Hospital, Brooklyn, N. Y	7.,1891
Hamlin, George Herbert,)rono, Me.,	1873
Hammond, George Everett,	Cliot, Me.,	$\dots 1872$
Hancock, William Jerome,	Tellow Springs, O.,	1888
Hanscom, George Loring,		
Hardison, Allen Crosby,	anta Paula, Cal.,	1890
Hart, James Norris,)rono, Me.,	1885
Harvey, Chandler Cushman,		
Harvey, James Elmore,I	Readfield, Me.,	1894
Haskell, Edwin James,		
Haskell, Newall Prince,		
Hatch, Elmer Ellsworth,		
Hatch, John Wood,I		
Hayes, Augustus Daniel,1	85 High St., Belfast, Me.,	1894
Hayes,Samuel HenryTewksbury,I		
Heald, James,4		
Healley, Warren Evans,5		
Heath, Everett Farino,	Ionmouth, Me.,	···1890
Hicks, Alice Albur (Mrs. G. F.		
	Portland, Me.,	
Hill, John Edward,		
Hilliard, Heddle,		
Hine, Thomas Walton,		
Hitchings, Edson Forbes,]		
Holden, William Cross,		
Holt, Fred William,		
* Holt, Nellie Maud,	•••••••••••••••••••••••••••••••••••••••	1879
How, Edward,	Washington, D. C.,	1876
* Deceased.		

Name.	Residence.	Class.
Howard, Will Russell,	Belfast, Me.,	
Howes, Claude Lorraine,	42 West Newton St., Boston,	Mass., 1888
Hubbard, Philip Wadsworth,		
Hull, Frank Eugene,		
Hunter, Rodney David,		
Hurd, Alonzo L.,		
Hutchinson, George Weymouth,		
Ingalls, Aldana Theodore,	Winston, Mont.,	····1881
Jack, Walter Dows,	. Orono, Me.,	
* Johnson, Robert John,		
Jones, Ralph Kneeland,		
Jones, Samuel Messer,		
Jordan, Alva Thomas,		
Jordan, Whitman Howard,		
Jose, Wallace Hight,		
Keith, Alfred Justin,		
Kelleher, Bartholomew Patrick,		
Kelly, Edward Havener,		
Keyes, Austin Herbert,		
*Keyes, George Edwin,		
Keyes, Prescott Jr.,	Bar Harbor, Me.,	
Kidder, Frank Eugene,	Denver, Colo.,	· · · · · · 1879
Kilburn, Charles Herbert,	.178 West 97th St., N. Y. City	·, ····· 1891
Kimball, Frank Issacher		
Kimball, James Mayberry,	• Medway, Me., • • • • • • • • • • • • • • • • • • •	
Kittredge, Charles Prentiss,	Newton Ctr., Mass.,	
Ladd, Edwin Fremont,		
Lazell, James Draper,		., Pa., 1887
Leavitt, Hannah Ellis (Mrs. Wal	- Orono, Me.,	1000
Leavitt, Nell Louise,		
Lenfest, Elmer,		
Lewis, Albert Augustus,		
Lewis, Huge McLellan		
Libby, Clara Alice,		
Libby, Mark D.,		
Lincoln, Harry Foster		
Locke, John Jr.,		
Lockwood, James Frederic,		
Long, Herbert Augustine,		
Lord, Robert William,		
Lord, Thomas George,	Skowhegan, Me.,	
*Loring, Charles Sewall,		
Lothrop, Luther Ramsdall,	Lothrop, Minn.,	

Name.	Residence.	Class.
Lufkin, George William,	Coatesville, Pa.,	
	Great Works, Me.,	
Lunt, Clarence Sumner,	Bangor, Me.,	
*Lunt, Joseph Cony,		····· 1877
	Waltham, Mass.,	
	Boston, Mass.,	
	y,Guilford, Me.,	
	····· Fort Fairfield, Me., ·····	
Mason, Charles Ayers, .	····· Portland, Ore., ···· ···	
	, Stillwater, Me.,	
Mayo, Edward Doliver,		apolis,
	Minn.,	
McIntyer, Horace Fland	ers,Waldoboro, Me.,	
McNally, Henry Allen,	····· Columbia, Mo., ···· ···	
Menges, Hugo Gustave,	Medford, Mass.,	
Merriam, Willis Henry,	The Rookery, Spokane, Wash	.,1886
	·····East Berlin, Conn., ·····	
	····· Laurence, Wash., ·····	
	Washington, D. C.,	
	Orono, Me.,	
	Laurence, Wash.,	
	h,Salt Lake City, Utah,	
	····· Cleveland, Ohio, · · · · · ·	
	Stillwater, Me.,	
	gton,	
	et,52 High St., Passaic, N. J., .	
	······ Monongahela, Pa.,····· .	
	······ Orono, Me., ·····	
Morey, Elmer Lake	····· Colombo, Ceylon, ·····	
	······Washington, D. C.,·····	
	am, Portland, Me.,	
	,Carrollton, Mo.,	
	Orono, Me.,	
	s, Springvale, Me.,	
	Oldtown, Me.,	
Murphy, Charles Clark,	Medford, Mass.,	
Murphy, Walter Marsha	ll,South Norridgewock, Me.,	···· 1895
*Murray, Benjamin Fran	ıklin,	
	Napa, Calif.,	
	·····Bolinas, Calif., ·····	
Norwood, Leon Orlando,	Houghton, Me.,	1894

Name.		lass.
Oak, Charles Edson,	Augusta, Me.,1	1876
Oak, John Marshall,	Bangor, Me.,1	1875
Oakes, Frank Judson,	86 Liberty St., New York City, 1	878
	St. Paul, Minn.,1	
Owen, John Wesley, Jr.,	Boston, Mass.,1	.890
	Portland, Me.,1	
	St. Paul, Minn.,1	
	Lafayette, Ind., 1	
	Belfast, Me., 1	
	70 Kilby St., Boston, Mass.,1	
	Amherst, Me.,	
	Sioux Falls, S. D.,1	
	Salem, Mass.,1	
	Great Falls, Mont.,1	
	Rico, Colo.,1	
	Gila Bend, Ariz.,1	
	Frankfort, Me.,1	
	Saccarappa, Me., 1	
	Worcester, Mass.,1	
	Washington, D. C.,1	
	Chicago, Ill.,1	
	136 West Newton St., Boston, Mass.,1	
-	Bangor, Me.,1	
	Lisbon Falls, Me.,1	
	724 Commercial Bldg.,St. Louis, Mo.,1	
	39 Cortlandt St., N. Y. City1	
•	2019Washington St., Boston, Mass., 1	
	19 Maple St., Bath, Me.,1	
	Franklin Park,Jamaica Plains,Mass.,1	
	Bangor, Me.,1	
	St. Joseph, Mo.,1	.890
Ramsdell,Louise Hammond(Mrs.		
	Maple, Me.,1	
	Richmond, Me.,1	
	Boston, Mass.,1	
	1 Dumfand Falls Ma	
	Rumford Falls, Me.,1	
Reed, Frederick Martin,	Providence, R. I.,1 Bellmont, Ariz.,1	.004 .004
	Stillwater, Me., 1	
	Eastport, Me.,1	
	414 East 26th St., N. Y. City,1	
	Orono, Me.,1.	
		100
Ring, Mary Lillian, (Mrs. H. H. Andrews),	Callaway, Neb.,1	.881
* Deceased.		

Name.	Residence.	Class.
Robinson, Lewis, Jr.,	Carmel, Me.,	
	., Chicago, Ill.,	
Rogers, Luther Woodm	an,Atlanta, Ga.,	
	tt, Denver, Colo.,	
	rick,Bangor, Me.,	
	n,Lincoln, Me.,	
	nington, .40 Lincoln St., Boston, M	
	oln, Orono, Me.,	
	erts, Pulman, Wash.,	
	Everett, Mass.,	
•		
	on,Washington, D. C., h,Bangor, Me.,	
	Lyman, Wash.,	
	vright,29 Cortlandt St., N. Y. Ci	
	18,	
	n,	
	,St. Cloud, Minn.,	
	,Caribou, Me.,	
	g,	
	n, North Orrington, Me.,	
	r,27 School St., Boston, Ma	
	r, Warren, Me.,	
	eth,Fort Fairfield, Me.,	
Stevens, Fred Leroy,	······ Farmington, Me., ·····	
Stevens, Thomas J.,	Portland, Me.,	
	s, Minneapolis, Minn.,	
	····· Skowhegan, Me., ·····	
	Norway, Me.,	
	e,Portland, Ore.,	
	emont,800 North Second St., St. I	
	shington, Y. M. C. A. Building, Ch	
	r, Orono, Me.,	
Swan, Clarence Buzzel	ll,Oldtown, Me.,	
	n, 125 West Central St., Nat	
Taylor, Levi William,	······Calais, Me., ·····	
Thayer, Harvey Bates,	, Presque Isle, Me.,	
Thomas, Charles Dura	.,	ss.,1895
	Grand Rapids, Mich.,	
	ward, Houlton, Me.,	
Timberlake, Stanley N	lilton,31 Milk St., Boston, Mass	5.,1892
* Deceased.		

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Name.	Residence.	Class.
Todd, Frank Herbert,	Boston, Mass ,	1882
Tolman, Frank Stevens,	Bangor, Me.,	1892
Towne, Charles Elmer,	. Rocky Bar, Idaho,	1877
Trask, Frank Ellsworth,	Ontario, Calif.,	1887
	. Iron River, Wis.,	
	.Fullerton, Calif.,	
	. 19 North St., Portland, Me.,	
	2018 Brandywine St., Phila., Pa	
Vickery, Gilbert Scovil,	Bangor, Me.,	1889
Vinall, Percia Ann (Mrs. Alber	rt	
	• Orono, Me.,	
Vose, Charles Thatcher,	37 Crescent St., Portland, Me.,.	$\dots 1887$
Wada Frank Swan	•• New Richmond, Wis., •••••	1991
	Bridgton, Me.,	
	3 Mt. Vernon St., Boston, Mass.	
	Fryeburg, Me.,	
	.Orono, Me.,	
	Dover, Del.,	
	Houlton, Me.,	
	Guilford, Me.,	
	Orono, Me.,	
	··· Alhambra, Calif., ·····	
	Orono, Me.,	
	··Augusta, Me.,	
	North Des Moines, Ia.,	1877
Weeks, Nellie Estelle, (Mrs.		
	Orono, Me.,	
	·· Madison, Me., ·····	
	• • • • • • • • • • • • • • • • • • • •	
	·····	
	Lewiston, Me.,	
	Green Bay, Wis.,	
	Trinidad, Colo.,	
	21 Broadway, Arlington, Mass.,	
	Elk River, Minn.,	
	Guilford, Me.,	
	150 East 28th St., New York Cit	
	•••••••••••••••••••••••••••••••••••••••	
	. Orono, Me.,	
	Reno, Nev.,	
	19 Cottage St., Cambridgeport, M	
	24 Arlington St., Lynn, Mass., .	
	• • • • • • • • • • • • • • • • • • • •	
Wyman, Levi Augustus,	Highland Park, Calif.,	1881
* Decessed		

* Deceased.

ALPHABETICAL LIST OF NON-GRADUATES.

Name.	Address.	Class.
Abbott, Edward Sewall	,Bridgton, Me.,	1884
Achorn, Davis Tillson,	• •••••• Rockland, Me.,•••••	
*Alexander, James Alm	10re	
Alford, Abbott Edwin.		Mass., 1893
	Pratt Institute, Brooklyn, N.	
	ngton,Saco, Me.,	
-	eric, Biddeford, Me.,	
	ph,Pittsfield, Me.,	
Bacon, Francis Henry,	96 Washington St., Boston, M	Iass.,1876
Bailey, Edward Mansfie	eld,Bangor, Me.,	
	272 Dudley St., Roxbury, Ma	
	ury, East Derry, N. H.,	
Bartlett, Joshua Burr,	Ashland, Me.,	····· 1882
Benjamin, Alice,	· · · · · · · · · Oakland, Me., · · · · · · · · · · · · · · · · · · ·	
Benjamin, Charles Hen	ry,89 Adelbert St., Cleveland, O	$hio, \dots 1878$
*Berry, Eugene Manass	eh,	
Berry, William Alanson	,	·····1884
*Blagden, Judson Billi	ngs,	····· 1894
Blossom, Leander Huzz	y,Turner, Me.,	
Boadway, Leslie Albert	.,	····· 1891
Bourne, Frank Augustu	s, Mass. Inst. Tech., Boston, M	ass.,1892
Bowler, John T.,	· · · · · · · · Bangor, Me., · · · · · · · · · ·	
	pson,	
*Bradford, Charles Fran	nk,	
Brown, Arthur Prentiss	s,Bradley, Me.,	
Buker, Albion Henry, .	44 Tremont St., Boston, Mass	s.,1888
Bunker, Frederick Stor	y,Boston, Mass.,	
	y,	
*Buswell, Ada M. L., .	· · · · · · · · · · · · · · · · · · ·	
Butler, Frederick Heyv	vood,Houlton, Me.,	
Chamberlain, James Ke	nt,Guilford, Me.,	
	g, New Gloucester, Me.,	
	d,Boston, Mass.,	
* Deceased.		

Name.	Residence.	Class.
Chapman, Clarence,	•Bangor, Me., •••••	1893
*Chase, Edson Clifford,		1877
Cheney, Charles Eastman,	517 Congress St., Portland, Me.,	1880
	. Patten, Me.,	
Colburn, Fred Alden,	. Minneapolis, Minn.,	1879
Cooper, Walter,	.Belfast, Me.,	1893
Cousens, James William,	. Stillwater, Me.,	1879
Cargill, Carroll David,	. Livermore Falls, Me.,	1890
	.Haverhill, Mass.,	
-	.Homestead, Pa.,	
Clark, Joseph Eliot Payson,	.1408 Fulton St., Chicago, Ill.,	. 1873
	. Sault Ste Marie, Mich .,	
	Sault Ste Marie, Mich .,	
	Eastport, Me.,	
	.Winthrop, Me.,	
	.509 Second St., N. E., Washington	
, , , , , , , , , , , , , , , , , , , ,	D. C.,	
Curtis, John Andrew,	. Delta, Colo.,	.1879
*Curtis, Roland,	•••••••••••••••••••••••••••••••••••••••	. 1874
Davis, Harry Wilbur,	. Guilford, Me.,	.1885
Davis, James Walker,	La Porte, Ind.,	.1891
	.Oldtown, Me.,	
	.16 Boutelle Ave., Waterville, Me.,	
	.Rehoboth, Mass.,	
	.Waterville, Me.,	
	Ashland, Me.,	
	Stockton, Calif.,	
Ellis, Freeland,	. Worcester, Mass.,	.1884
Elwell, Charles Clement,	Norwich, Conn.,	.1878
Emery, William Edward,	.Surry, Me.,	.1883
Fernald, Gardiner George,	.Wilton, Me.,	.1889
	Brunswick, Me.,	
	Cambridge, Mass.,	
	••••••••••••••••••	
	. 149 East Brown St., Waltham, Mass	
	·Glenburn, Me.,	
	.60 Bowdoin St., Boston, Mass.,	
	Akron, O.,	
	Natick, R. I.,	
	, .	
	East Washington, N. H.,	
Gee, Archy Stuart,	. Minneapolis, Minn.,	.1881
* Deceased.		

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Name.	Residence.	Class.
George, William Harvey,	Residence.	1872
Goodale, Loomis Farrington, .	St. Joseph, Mo.,	1879
Goodwin, Harry Herrick,	Dension, Texas	1880
*Goud, Frank Herbert,		1877
	Caribou, Me,	
	· · · · · · · · · · · · · · · · · · ·	
	··Presque Isle, Me., ·····	
	Brookhaven, Miss.,	
	Dexter, Me.,	
Hamlin, Edwin Thompson,	Ithaca, N. Y.,	1893
Hammett, William Cushing,	··Bangor, Me.,	1893
	•••••••••••••••••••••••••••••••••••••••	
	Montpelier, Vt.,	
	Newport, Me.,	
Hastings, Albert Mills,	Rockland, Me.,	1890
Hatch, Ernest Stearns,	. Lovell Ctr., Me.,	$\dots 1892$
	Pasadena, Calif.,	
Haynes, Charles Irving,	Bangor, Me.,	1893
*Hazeltine, Frank Adlam		1876
Herring, Menzes Fessenden	. Dexter, Me.,	1877
	.Patten, Me.,	
	Machias, Me.,	
Hincks, Charles Trask,	Bangor, Me.,	
	. Whittensville, Mass.,	
	.Stillwater, Me.,	
Hopkins, Eugene L.,	.1508 Randolph St., Seattle, Wash	.,1876
Horne, John Francois,	.96 Pleasant St., Auburn, Me.,	1881
	.Stillwater, Me.,	
Horton, John Bancroft,	.Lincoln, Nev.,	1880
Houghton, Austin Dinsmore,	.Terre Haute, Ind.,	1887
Howe, Richard Scrope,	.Fryeburg, Me.,	1878
	• • • • • • • • • • • • • • • • • • • •	
	Boston, Mass.,	
	Chelsea, Mass.,	
	Providence, R. I.,	
	. Caribou, Me.,	
	.17 Bowdoin St., Boston, Mass.,	
	~ ~ ~ ~	
	.Pruden, Colo.,	
	Bangor, Me.,	
Jones, Leon Houston,	.79 Poplar St., Roslindale, Mass.,	1890
Jones, Oliver Leslie,	·Corinna, Me.,	$\dots 1879$
Kelsea, Norman Fay,	.12 Pleasant Place, Brockton, Mas	s., 1883

^{*} Deceased.

Name.	Residence.	Class.
	Bowdoinham, Me.,	
	Brockton, Mass.,	
	Ash Fork, Ariz.	
, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Bremen, Me.,	
	···Bradley, Me., ·····	
Lane, Samuel,	Houlton, Me.,	
	•••••••••••••••••••••••••••••••••••••••	
Leavitte, Cora Annie, (Mrs.		
	Norridgewock, Me.,	
	Newburyport, Mass.,	
	Denver, Colo.,	
	Exeter, Me.,	
	•••• Exeler, me., ••••••••••••••••••	
	33 Globe Building, Boston, Mas	
	·· Lincoln, Me., ·····	
	Biddeford, Me.,	
Lyford, Albert Lewis,	Kent's Hill, Me.,	
Macomber, Charles Sumner,	Ida Grove, Ia.,	1881
	Minneapolis, Minn.,	
	······································	
	Oldtown, Me.,	
	······································	
	Princeton, Me.,	
	Rookery Building, Spokane, W	
	Aitkin, Minn.,	
	•• Auburn, Me., ••••	
	1271 Hunter St., Columbus, O.,	
	Waldoboro, Me.,	
	Fairplay, Colo.,	
	··· Tacoma, Wash., ·····	
Moor, Dudley Watson, Jr.,	Toledo, O.,	1886
Morris, John Richard.	··Boston, Mass	1893
*Morris, William Allen,		1891
Morton, Asa Croxford,	Bangor, Me.,	1879
Mudgett, Webster,	Albion, Me.,	1876
*Murray, Charles Sumner,	••••••	$\dots 1883$
*Nash, Charles William		1880
	Hampden, Me.,	
	Hollis, Me.,	
	Buffalo Meadows, Nev.,	
	Quincy, Mass.,	
	··· quincy, mass., ·····	•••••1001

	Desidence	(1) - a -
Name. Ook Willig Laurong	Residence. Caribou, Me.,	Class.
Oak, while Laureus,	Honolulu, S. I.,	1070
Oleson, william Brewster,		1072
Osgood, Unaries Frederic,	Garland, Me.,	•• 1874
Packard, Robert Messer,	Rockland, Me.,	··1891
Page. Frank Jackson,	Orono, Me.,	1888
	Boston, Mass.,	
	Stockton, Me.,	
	Machias, Me.,	
	313 East 10th St., St. Paul, Minn.,	
	Charleston, Me.,	
	Charleston, me.,	
	Oldtown, Me.,	
	Oakland, Me.,	
	Rockland, Me.,	
	220 Devonshire St., Boston, Mass.,	
	Lincoln, Me.,	
	Belfast, Me.,	
	. Turner, Me.,	
	South Turner, Me.,	
	New York, N. Y.,	
Pullen, Fred Hubbard,		1877
Ramsdell, Emily Isabel,	Bangor, Me.,	1880
*Reed, Frank Radford,	•••••••••••••••••••	1877
*Reed, William Henry,		1874
Rich, Everett Frost,	. Bangor, Me.,	1883
Rich, George Avery,	Boston, Mass.,	1883
Rich, George Frank,	Berlin, N. H.,	1892
	Auburndale, Mass.,	
Rich, William J.,	Johnstown, Pa.,	1880
Richardson, John Oakes,	Oldtown, Me.,	1878
Ricker, John Hale,	40 Lincolu St., Boston, Mass.,	1894
Rines, Randall Wight,	.11 Chauncy St., Boston, Mass.,	1876
	Cheney, Wyo.,	
Robinson, Harry Orman,	Everett, Mass.,	1893
Robinson, Walter Franklin,	Richmond, Me.,	.1876
Rogers, Clara,	Hampden Cor., Me.,	1889
Rolfe, Charles Collamore,	Maysville Center, Me.,	1888
	St. Stephen, N. B.,	
Rowell, Herbert,	St. Paul, Minn.,	1890
	Olympia, Wash.,	
	rand Central Depot, N. Y. City, .	
Sargent, Aren Shaw	Lawrence, Mass.,	.1879
*Descel and an and a second se	- 1.0.1.101,00, 111,001,	1014

^{*} Deceased.

,

Name.	Residence.	Class.
Sargent, William Henry,		
Savage, Elmer Americus,		
Scott, Clarence,	Oldtown, Me	
Sherburne, William Percival,		
*Shorey, Marcus Peltiah,		
Simpson, Charles Sumner,		
Smith, Charles F.,		
*Smith, Eugene Gardiner,		
Stuart, Albert Harmon,		
Smith, Lizzie Louise,		
Smith, Ralph Kendrick,		
Soule, Sidney Smith,		
Southard, Clara(Mrs.Hammo		
Southard, Frank Edwin,		
Spratt, Frank Allen,		
*Spratt, George Wilbur,		
Spring, Charles Herbert,		
	S. A.,	
Starbird, Ralph,	10 California St., San Fra	ncisco, Cal., 1883
*Tidd, Charles Plummer,		
Tidd, Harry Powell,		
Tilley, T. Louis Kossuth,		
Tirrill, Leonard Alexander,		
Titus, William Nelson,		
Townsend, Henry Clay,		
Trickey, George Irving,		
Tripp, Norman,		
True, Joseph Sumner,		
*Trueworthy, Horace Griffin		
Tucker, Frank Lincoln,		
Turnbull, Ernest H.,	St. John, N. B.	
Vinall, William Albert,	Ashland, Me.,	
Wales, William Gorton,	Monticello, Ia.,	
Warriner, Edson,		
Watson, Benjamin Franklin,.		
Webb, Clara Ella,		
Webber, Gilman Hodgdon,		
Webster, Alden Palmer,	Orono. Me	
Webster, Daniel, Jr.,		Me
Webster, Howard Elmer,	Orono Me	
Webster, Frank Carr,	Lewiston Me	
Webster, Frank Gilman,	Orono Me	
Weeks, Frank Benjamin,		
* Weeks, Frank Benjamin,		
weeks, mastus,		

* Deceased.

65

+

Name. Residence. Class.
Welch, Flora Etta,
Wellington, Arthur Lee, Covina, Calif.,
Wentworth, Charles Williams, Westbrook, Me.,
*Whipple, Jotham, Jr.,1884
White, Louis Henry, Lincoln Ctr., Me.,
Whitney, William Butler1877
Whittiker, Frank Pierce, Hermon, Me.,
Wiggin, Fred Sumner, Maysville Ctr., Me.,
Williams, Laforest Charles, Athens, Me.,
Wilson, George Henry, Wilcox, Ariz.,
Wilson, Perley Rupert,
Wood, William Ireland,Corinna, Me.,1874
Young, Rodney Adelbert, Baltimore, Md.,
Young, Thomas Jefferson, Athens, Me.,

.

* Deceased.

N . . .



VIEW FROM THE KAPPA SIGMA HOUSE.
CATALOGUE

OF THE

Maine State College



1895-1896

ORONO, MAINE

AUGUSTA Burleigh & Flynt, Printers to the State 1896 .

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CALENDAR.

FALL TERM, 1895.

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September	2,	Monday,	Before-term examinations begin.
September	3,	Tuesday,	Entrance examinations begin.
September	4,	Wednesday,	Fall term begins.
October	4,	Friday,)	Annual military encampment.
October	11,	Friday, J	initial minitary encampment.
November	22,	Friday,	Senior Debate.
November	26,	Tuesday,	Meeting of the Board of Trustees.
November	28,	Thursday,)	Thanksgiving recess.
December	1,	Sunday, J	rhanksgiving recess.
December	6,	Friday,	Sophomore prize declamation.
December	17,	Tuesday,	Term examinations begin.
December	19,	Thursday,	Term ends.

SPRING TERM, 1896.

February	3, Monday,	Before-term examinations begin.
February	4, Tuesday,	Entrance examinations begin.
February	5, Wednesday,	Spring term begins.
February	22, Saturday,	Washington's birthday.
April	30, Thursday,	Fast day.
May	8, Friday,	Arbor day.
May	30, Saturday,	Decoration day.
May	30, Saturday,	Senior vacation begins.
June	1, Monday,	Ivy day.
June	3, Wednesday,	Farmers' field day.
June	13, Saturday,	Junior exhibition.
June	14, Sunday,	Baccalaureate sermon.
June	15, Monday,	Convocation.
June	15, Monday,	Class day.
June	15, Monday,	Commencement oration.
June	16, Tuesday,	Meeting of the Board of Trustees.
June	16, Tuesday,	Exhibition drill.

June	16, Tuesday,	Receptions by the fraternities.
June	16, Tuesday,	Reception by the President.
June	17, Wednesday,	Commencement.
June	17, Wednesday,	Commencement dinner.
June	17, Wednesday,	Meeting of the Alumni Association.
June	17, Wednesday,	Commencement concert.
June	18, Thursday,	Entrance examinations begin.

FALL TERM, 1896.

August	31,	Monday,	Before-term examinations begin.
September	1,	Tuesday,	Entrance examinations begin.
September	2,	Wednesday,	Fall term begins.
November	20,	Friday,	Senior debate.
November	24,	Tuesday,	Meeting of the Board of Trustees.
November	26,	Thursday,)	Thanksgiving recess.
November	29,	Sunday, ^f	Indukigiting recessi
December	4,	Friday,	Sophomore prize declamation.
December	22,	Tuesday,	Term examinations begin.
December	24,	Thursday,	Term ends.

SPRING TERM, 1897.

February	1, Monday,	Before-term examinations begin.
February	2, Tuesday,	Entrance examinations begin.
February	3, Wednesday,	Spring term begins.
June	23, Wednesday,	Commencement.

ESTABLISHMENT.

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 in 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 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 principal or interest of this fund, for the purchase, erection, or maintenance of any building or buildings; and the several States claiming and taking the benefit of the provisions of the Act were required, "to provide within five years not less than one college" for carrying out the purposes of the Act.

In 1863, the State accepted this grant, and in 1865, Samuel F. Perley, Hannibal Hamlin, and fourteen other persons were "constituted a body politic and corporate, by the name of the Trustees of the State College of Agriculture and the Mechanic Arts," with power to establish and maintain such a college as is provided for in the Act of Congress. To the Trustees was granted the right to receive and hold donations or benefactions, to select the professors and other officers of the college, to establish the conditions for admission, to lay out courses of study, to grant degrees, and to exercise other usual powers and privileges.

To the Governor and Council was granted the power, "to examine into the affairs of the college, and the doings of the trustees, and to inspect all their records and accounts, and the buildings and premises occupied by the college." It was provided that the college should teach such studies, in addition to those especially required by the Act of Congress, as the facilities would permit. Military instruction was explicitly ordered.

Tuition was made free, and the trustees were directed to make the expenses of students as small as possible.

ENDOWMENT AND INCOME.

The State of Maine received, under the Act of Congress, two hundred and forty thousand acres of public land, from which the college has realized an endowment fund of about \$131.000. To this have been added \$100,000, by the bequest of Abner Coburn of Skowhegan, who was for many years president of the Board of Trustees.

The town of Orono contributed \$8,000, and the town of Oldtown \$3,000 for the purchase of the site on which the college buildings stand. The State has appropriated about \$250,000, mostly for the material equipment.

Under an Act of Congress approved March 2, 1887, the college receives \$15,000 annually for the maintenance of its experimental work in agriculture. This is in charge of the department known as the Agricultural Experiment Station.

Under an Act of Congress approved August 30, 1890, the college received for its more complete endowment and maintenance "the sum of fifteen thousand dollars for the year ending June thirtieth, eighteen hundred and ninety." The Act provided that this amount should be increased by one thousand dollars each year until the annual appropriation should reach twenty-five thousand dollars, and then remain at this sum.

The college receives, during 1895 and 1896, \$20,000 annually from the State for current expenses.

THE BOARD OF TRUSTEES.

 THE HON. HENRY LORD, President,
 Bangor.

 THE HON. WILLIAM THOMAS HAINES, B. S., LL. B.,
 Secretary, Waterville.

 THE HON. CHARLES PLUMMER ALLEN, B. S.,
 Presque Isle.

 THE HON. CHARLES PLUMMER ALLEN, B. S.,
 Presque Isle.

 THE HON. BENJAMIN FRANKLIN BRIGGS,
 Auburn.

 GREENVILLE JEFFERSON SHAW,
 Hartland.

 THE HON. RUSSELL BENJAMIN SHEPHERD, Skowhegan.
 ARTHUR LEE MOORE, B. S.,

 Limerick.
 THE HON. ELLIOTT WOOD,
 Winthrop.

EXECUTIVE COMMITTEE.

TRUSTEES LORD, HAINES, AND ALLEN.

THE EXPERIMENT STATION COUNCIL.

_

BENJAMIN FRANKLIN BRIGGS,Auburn.
ARTHUR LEE MOORE, B. S.,Limerick.
ELLIOTT WOOD, Winthrop.
Committee of the Board of Trustees.
ABRAM WINEGARDNER HARRIS, Sc. D., President, Orono. President of the College.
WHITMAN HOWARD JORDAN, M. S., Secretary, Orono.
Director of the Station.
BENJAMIN WALKER MCKEEN, Fryeburg.
Representative of the State Board of Agriculture.
ORA OTIS CROSBY, Albion.
Representative of the Maine State Grange.
CHARLES S. POPE,
Representative of the State Pomological Society.
JAMES MONROE BARTLETT, M. S.,Orono.
LUCIUS HERBERT MERRILL, B. S.,Orono.
FRANCIS LEROY HARVEY, Ph. D.,Orono.
FREMONT LINCOLN RUSSELL, V. S.,Orono.
WELTON MARKS MUNSON, M. S.,Orono.
Members of the Station Staff.

THE FACULTY AND OTHER OFFICERS.

.

ABRAM WINEGARDNER HARRIS, Sc. D.,Campus. President.
GEORGE HERBERT HAMLIN, C. E.,Main Street. Professor of Civil Engineering.
ALFRED BELLAMY AUBERT, M. S.,Campus. Professor of Chemistry.
ALLEN ELLINGTON ROGERS, M. A.,College Street. Professor of Civics and Logic.
WALTER FLINT, M. E.,Bennoch Street. Professor of Mechanical Engineering.
WHITMAN HOWARD JORDAN, M. S.,
JAMES MONROE BARTLETT, M. S.,College Street. Chemist in the Experiment Station.
LUCIUS HERBERT MERRILL, B. S.,
FRANCIS LEROY HARVEY, Ph. D.,Forest Avenue. Professor of Natural History and Ento- mologist of the Experiment Station.
JAMES NORRIS HART, C. E.,Campus. Professor of Mathematics and Astronomy.
HOWARD SCOTT WEBB, B. M. E.,North Main Street. Instructor in Shop-Work.
FREMONT LINCOLN RUSSELL., V. S.,College Street. Instructor in Biology and Veterinarian in the Experiment Station.

-

- *NATHAN CLIFFORD GROVER, B. C. ECampus. Assistant Professor of Civil Engineering.
- HARRIET CONVERSE FERNALD, M. S.,....North Main Street. Librarian.

*WELTON MARKS MUNSON, M. S.,.... Campus. Professor of Horticulture and Horticulturist of the Experiment Station.

- HORACE MELVYN ESTABROOKE, M. S., M. A.,..... Main Street. Professor of English.
- *JAMES STACY STEVENS, Ph. D.,....Bennoch Street. Professor of Physics.
- GILBERT MOTTIER GOWELL, M. S.,....Campus. Professor of Animal Industry.
- DAVID WILDER COLBY, B. S.,Campus. Instructor in Chemistry.
- HARRIS PERLEY GOULD, B. S.,....Campus. Assistant in Horticulture in the Experiment Station.
- ALBERT JOSEPH DURGIN,Pine Street. Assistant in Wood-Work.
- FRED CHARLES MOULTON, M. S., North Main Street. Chemist in the Experiment Station.
- ELMORE DAVID CUMMINGS, C. E.,Bennoch Street. Instructor in Civil Engineering.
- WILBUR FISK JACKMAN, B. S., Ph. C.,....Bennoch Street. Instructor in Pharmacy.
- BURTON SMITH LANPHEAR, B. S., Instructor in Electrical Engineering.
- EDWIN BRYANT NICHOLS, B. A.,Bennoch Street. Instructor in Modern Languages.
- WINFIELD SCOTT EDGERLY, Captain U. S. Cavalry, Bangor. Professor of Military Science.
- WENDELL WYSE CHASE, B. C. E.,.....Campus. Tutor in Drawing.

^{*}On leave.

FRANK DAMON, B. S.,Bennoch Street. Tutor in Physics.
HALBERT GARDINER ROBINSON, B. C. E.,Mill Street. Tutor in Mathematics.
ORA WILLIS KNIGHT, B. S.,Bangor. Assistant in Natural Science.
ELIZABETH ABBOTT BALENTINE,Campus. Secretary to the President.

ADMISSION.

Applicants for admission to the college must pass the required examinations, or present satisfactory certificates of fitness, and file with the Treasurer a bond for \$150 signed by two bondsmen, as security for the payment of dues to the college. No distinction is made in regard to sex or place of residence. Candidates for advanced standing, unless they present certificates of fitness, are examined in the preparatory studies in addition to those previously pursued by the classes they propose to enter, or in other equivalent studies.

A student who has accomplished half or more of the preparatory course may be examined on that part, and receive credit therefor. In such a case, he will be examined, in any subsequent year in which he may present himself, only on those studies on which he has not already passed.

As the required work of the college includes an unusually large amount of mathematics, and since success in the engineering courses requires the ability to make easy use of the higher mathematics, it is desirable that students preparing for admission to the college be subjected to the most rigorous drill in this subject. High schools fitting for the college should give a part of the work in geometry and algebra, or a review of these subjects, during the last year.

Attention is called to the need of careful preparation in English. This should include the rapid reading of numerous standard works of fiction, the careful reading of other standard works, the writing of themes based upon this reading, and the frequent writing of themes on simple and familiar subjects, with exercises in punctuation, capitalization, etc.

Persons who are not candidates for a degree, and who wish to take special studies, will be permitted to do so upon giving satisfactory evidence that they are prepared to take the desired studies. If they subsequently desire to become candidates for a degree, or to take a regular course, they may be required to pass the entrance examinations. No examinations are required for admission to the winter short courses.

College graduates who have received the degree of B. A. or B. S. and wish to enter a technical course, will be admitted to the Junior class as candidates for degrees, without examination. Students in classical or literary courses, who expect to pursue technical courses after graduation, should avail themselves of all opportunities for the study of mathematics, physics, chemistry, and drawing, as a preparation for engineering courses; and of physics, chemistry, and drawing, for chemical and biological courses.

ADMISSION BY EXAMINATION.

Examinations are held at the college, beginning on the day before the opening of each term, and on the day after commencement. Examinations are also held, if desired, in each county of the State and in other places. The examinations in other places than the college are held on the day after commencement, and persons desiring examinations at such places must notify the President of the college not later than June 1.

To save expense to candidates, special local examinations will be given when satisfactory arrangements can be made. Upon request, questions will be sent to any principal, or other satisfactory person who will consent to conduct the examination for the accommodation of the candidate. The questions are to be submitted under the usual restrictions of a written examination, and the answers returned to the college accompanied by the indorsement of the examiner that the examination has been properly made. The student desiring to take advantage of this provision must secure the consent of a satisfactory person to take charge of the examination, and make early request to the President of the college to have examination questions sent.

Candidates for the CHEMICAL, AGRICULTURAL (four years), PREPARATORY MEDICAL, PHARMACY (four years), CIVIL ENGI-NEERING, MECHANICAL ENGINEETRING, ELECRICAL ENGINEER-ING (four years), and ELECTRICAL ENGINEERING (two years) COURSES are examined on—

Elementary Subjects :	Mathematics:
Arithmetic.	Geometry.
English Grammar.	Algebra.
Physiology.	Science: Two of the following:
Language :	Botany.
English.	Chemistry.
History:	Physical Geography.
United States.	Physics.

Elementary Subjects :	NTIFIC COURSE are examined on — History :
	United States.
Arithmetic.	Roman.
English Grammar.	
Physiology.	Mathematics:
Language:	Geometry.
English.	Algebra.
Latin.	
French or German.	red in 1897.
Candidates for the SCIENTIFIC	COURSE are examined on-
Elementary Subjects:	Mathematics :
Arithmetic.	Geometry.
English Grammar.	Algebra.
Physiology.	Science: Two of the following:
Language :	Botany.
English.	Chemistry.
French or) First requir	red Physical Geography.
German. 🚶 in 1897.	Physics.
History :	-
United States and one o the following: General. Roman. English.	f
8	URSES IN AGRICULTURE (one and
two years), are examined on-	URSES IN AGRICULTURE (One and
Elementary Subjects :	
	Mathematico :
	Mathematics:
Arithmetic.	Algebra through simple
Arithmetic. English Grammar.	Algebra through simple equations of the first
Arithmetic. English Grammar. Physiology.	Algebra through simple equations of the first degree.
Arithmetic. English Grammar. Physiology. Language :	Algebra through simple equations of the first degree. Science : Two of the following :
Arithmetic. English Grammar. Physiology. Language : English.	Algebra through simple equations of the first degree. Science: Two of the following: Botany.
Arithmetic. English Grammar. Physiology. Language : English. History :	Algebra through simple equations of the first degree. Science: Two of the following: Botany. Chemistry.
Arithmetic. English Grammar. Physiology. Language : English.	Algebra through simple equations of the first degree. Science: Two of the following: Botany.
Arithmetic. English Grammar. Physiology. Language : English. History : United States.	Algebra through simple equations of the first degree. Science: Two of the following: Botany. Chemistry. Physical Geography.
Arithmetic. English Grammar. Physiology. Language: English. History: United States. Candidates for the COURSE	Algebra through simple equations of the first degree. Science: Two of the following: Botany. Chemistry. Physical Geography. Physics. IN LIBRARY ECONOMY are ex-
Arithmetic. English Grammar. Physiology. Language: English. History: United States. Candidates for the COURSE amined on—	Algebra through simple equations of the first degree. Science: Two of the following: Botany. Chemistry. Physical Geography. Physics.
Arithmetic. English Grammar. Physiology. Language: English. History: United States. Candidates for the COURSE amined on— Elementary Subjects:	Algebra through simple equations of the first degree. Science: Two of the following: Botany. Chemistry. Physical Geography. Physics. IN LIBRARY ECONOMY are ex- Science: Two of the following: Botany.
Arithmetic. English Grammar. Physiology. Language: English. History: United States. Candidates for the COURSE amined on— Elementary Subjects: Arithmetic. English Grammar.	Algebra through simple equations of the first degree. Science: Two of the following: Botany. Chemistry. Physical Geography. Physics. IN LIBRARY ECONOMY are ex- Science: Two of the following: Botany. Chemistry.
Arithmetic. English Grammar. Physiology. Language: English. History: United States. Candidates for the COURSE amined on— Elementary Subjects: Arithmetic.	Algebra through simple equations of the first degree. Science: Two of the following: Botany. Chemistry. Physical Geography. Physics. IN LIBRARY ECONOMY are ex- Science: Two of the following: Botany.
Arithmetic. English Grammar. Physiology. Language: English. History: United States. Candidates for the COURSE amined on— Elementary Subjects: Arithmetic. English Grammar. Physiology.	Algebra through simple equations of the first degree. Science: Two of the following: Botany. Chemistry. Physical Geography. Physics. IN LIBRARY ECONOMY are ex- Science: Two of the following: Botany. Chemistry. Physical Geography.

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Candidates for the SHORT COURSE IN PHARMACY (two years) are examined on-

Descriptive Geography.	United States History.
Arithmetic.	Algebra, through simple equa-
English Grammar.	tions of the first degree.
Physiology.	

SUBSTITUTES.—The requirements for the Latin-Scientific Course will be accepted for any other course. One year of Latin will be accepted as a substitute for one of the following:

(a) Arithmetic, English Grammar and Physiology.

(b) French or German.

(c) One Science.

French or German will be accepted as a substitute for one of the following:

(a) Arithmetic, English Grammar, Physiology.

(b) One Science.

Other real substitutes will be accepted for any part of the requirements except Mathematics, English, and Latin.

GENERAL COURSES.			SCIENTIFIC COURSES.			Engineering Courses.			SHORT COURSES.				
Studies.	Latin-Scientific.	Scientific.	Chemical.	Agricultural, 4 years.	Preparatory Medical.	Pharmacy, 4 years.	Civil Engineering.	Mechanical Engineering.	Electrical Engineering.	Pharmacy, 2 years.	Agricultural, 1 or 2 years.	Library Economy, 1 year.	Electrical Engi- neering, 2 years.
Elementary: a Geography Arithmetic English Grammar Physiology	*	* * *	*	* *	•••• * *	*	••••• * *	*	* * *	* * *	*	*	* * *
Language: English French b { German b } Latin	* * ^C	* * ^c	*	*	*	*	* ••••	*	*		*	*	*
History: United States General Roman English	*	${}^*_{*^d}$	*	*	*	*	*	*	*	*	*	*	*
Mathematics: Geometry Algebra	*	*	*	* *	* *	* *	*	* *	* *	 *е		· · · · · ·	* *
Science : f Botany Chemistry Physical Geography Physics		*g *	*g *	• *g *	*g *	*g *	*g *	*g *	*g *		*g *	*g *	*g *
Current events.		••••			•••••			••••	•••••		• •••	*	

ENTRANCE REQUIREMENTS FOR ALL COURSES,

a-One year of Latin, or one modern language will be accepted as a substitute for all the elementary studies.

b-One year of Latin will be accepted as a substitute for one modern language.

c-Either French or German. This requirement will not be enforced in 1896.

d-The requirements for the Scientific Course include either General, or Roman, or English History in addition to United States History.

*e*_Through simple equations of the first degree only.

f—One year of Latin, or one modern language will be accepted as a substitute for one science.

 g_{-} For all courses, except the Latin-Scientific, and the Short Course in Pharmacy, two sciences, from the list of four, are required.

The following statements will show in detail, the requirements in each subject.

ELEMENTARY SUBJECTS.

DESCRIPTIVE GEOGRAPHY.—Location of continents, mountain ranges, peninsulas, isthmuses, islands, capes; location of oceans, bays, sounds, straits, lakes and rivers; location and boundaries of countries and states; location of important seaports, commercial cities and capitals; approximate latitude and longitude of important places. Required for short course in pharmacy only.

ARITHMETIC.—Simple and denominate numbers; ratio and proportion; common and decimal fractions; percentage; metric system of weights and measures; square root. A satisfactory treatment of these subjects may be found in Wentworth and Hill's, Greenleaf's, or the Franklin Arithmetic. It is important that definite ideas of the units of the metric system should be obtained. A thorough drill in mental arithmetic with a book like Colburn's is recommended

ENGLISH GRAMMAR.—Definition of terms; formation of plural number and possessive case of nouns; inflection of pronouns; comparison of adjectives and adverbs; the agreement of verbs with their subjects, and of pronouns with their antecedents; the synopsis of the verb; the analysis of sentences; the application of the rules of syntax. Special attention should be given to punctuation and use of capital letters.

PHYSIOLOGY.—Cells and tissues, skeleton, muscles, blood and circulation, respiration, nutrition and digestion, lymphatic system, excretory organs, nervous system, special senses, hygiene.

LANGUAGE.

ENGLISH.—I. Reading and Practice. Each candidate will be required to present evidence of a general knowledge of the substance of the books mentioned below and to answer simple questions on the lives of their authors. The examination will usually be the writing of one or two paragraphs on each of several topics. The treatment of these topics is designed to test the power of clear and accurate expression, and will call for only a general knowledge of the substance of the books. In place of this test, the candidate may present an exercise book, certified by his instructor, containing compositions or other written work done in connection with the reading of the books.

In 1896, this part of the examination will be based upon: Shakspere's Midsummer Night's Dream, Defoe's History of the Plague in London, Irving's Tales of a Traveller, Scott's Woodstock, Macaulay's Essay on Milton, Longfellow's Evangeline, George Eliot's Silas Marner.

In 1897, it will be based upon: Shakspere's As You Like It, Defoe's History of the Plague in London, Irving's Tale of a Traveller, Hawthorne's Twice Told Tales, Longfellow's Evangeline, George Eliot's Silas Marner.

In 1898, it will be based upon: Milton's Paradise Lost, books I and II, Pope's Iliad, books I and XXII, the Sir Roger de Coverley Papers in the Spectator, Goldsmith's Vicar of Wakefield, Coleridge's Ancient Mariner, Southey's Life of Nelson, Carlyle's Essay on Burns, Lowell's Vision of Sir Launfal, Hawthorne's House of the Seven Gables.

II. Study and Practice. This part of the examination presupposes a careful study of the works named below. The examination will be upon subject-matter, form, and structure; and will also test the candidate's ability to express his knowledge with clearness and accuracy.

In 1896, this part of the examination will be based upon: Shakspere's Merchant of Venice, Milton's L'Allegro, Il Penseroso, Comus, and Lycidas, Webster first Bunker Hill Oration.

In 1897, it will be based upon Shakspere's Merchant of Venice, Burke's Speech on Conciliation with America, Scott's Marmion, Macaulay's Life of Samuel Johnson.

In 1898, it will be based upon Shakspere's Macbeth, Burke's Speech on Conciliation with America, DeQuincey's Flight of a Tartar Tribe, Tennyson's Princess.

FRENCH.—The candidate offering French, should have: (a) an accurate knowledge of the grammar, and especially of the regular and irregular verbs; (b) an elementary knowledge of French composition; (c) the ability to read at sight French novels of average difficulty.

GERMAN.—The candidate offering German should have: (a) an accurate knowledge of the essentials of the grammar; (b) an elementary knowledge of German composition; (c) the ability to read with fair ease, a classical play.

LATIN.—The grammar, including prosody; Cæsar's Gallic War, books I, II, III, and IV; Cicero's four orations against Cataline. and those for Archias and for the Manilian Law; Virgil's Ecloguues and the Æneid, books I, II, III, IV, V, VI; translation at sight into English of passages of Latin of average difficulty; translation into Latin of simple English sentences, and easy narrative passages based on the prose authors read. For the last, a vocabulary of unusual words will be furnished. Equivalent readings will be accepted for those prescribed.

HISTORY.

UNITED STATES HISTORY.—The voyage and discoveries of Columbus and of the other early navigators and adventurers; the circumstances that led to the founding of the different colonies; the causes, leading events, and results of the War of the Revolution; the Articles of Confederation and the causes leading to the adoption of our present Constitution; the extent of the United States at the close of the Revolution and additions made to our national territory since; the National and State governments; the causes and results of the second war with England, and of the war with Mexico; the causes, leading events and results of the war of the Rebellion; history of the United States since the close of this war.

GENERAL HISTORY .- Myer's General History.

ROMAN HISTORY.—Allen's Short History of the Roman People, to the death of Marcus Aurelius.

ENGLISH HISTORY.—An elementary knowledge such as may be obtained from Montgomery's History of England.

MATHEMATICS.

PLANE GEOMETRY.—The first five books of Chauvenet's,Wells', or Wentworth's Geometry. The preparation should include the solution of numerical exercises, the demonstration of original propositions, and the construction of geometrical figures in a neat and careful manner with dividers and ruler. The examination will include some propositions for original demonstration or construction.

ALGEBRA.—Fundamental operations; use of parentheses; factoring; highest common factor; lowest common multiple; fractions, simple and complex; simple equations, with one or more unknown quantities; * involution of monomials and polynomials; evolution of monomials and polynomials; the theory of exponents, with applications; radicals, including rationalization, imaginary quantities, properties of quadratic surds, square root of a binomial surd, and solution of equations containing radicals; quadratic equations; ratio and proportion; arithmetical progression; geometrical progression. A satisfactory treatment of these topics may be found in Greenleaf's Elementary, Newcomb's, Wells' Academic or Wentworth's School Algebra.

^{*} Candidates for the short courses in agriculture (one and two years), and the short course in pharmacy (two years) are not examined on the following topics in algebra.

SCIENCE.

BOTANY.—Any course will be satisfactory which brings the pupil into contact with plants. In schools possessing compound microscopes work should be done such as is presented in Bessey's Essentials of Botany, Arthur, Barnes and Coulter's Handbook of Plant Dissection, or Campbell's Structural and Systematic Botany. In case no compound microscopes are available such a text as Gray's Text Book, revised edition, should be used, as both recitation book and laboratory guide.

CHEMISTRY.—The necessary ground is covered by the following elementary text-books: Fisher, Remsen, Williams, Shepard, Storer and Lindsay, Roscoe (inorganic part).

PHYSICAL GEOGRAPHY.—Definition of terms; motions, form, size of the earth; magnetic action; physical features of the continents; relief forms; currents of air and water; volcanoes, earthquakes, geysers, etc.; forms of water; climate; drainage; tides; meteorology, clouds, rain, dew, etc.; glaciers and icebergs; races; metals and minerals; fauna and flora.

PHYSICS.—Avery's, Gage's, or Ganot's Physics.

CURRENT EVENTS.

A fair understanding of the politics, history, and literature of the times, such as may be obtained from the intelligent reading of the newspapers, journals, and magazines, and standard works. Required of candidates for the Library Economy Course only.

ADMISSION BY CERTIFICATE OF FITNESS.

Any preparatory school whose course of instruction covers in a satisfactory manner the requirements for admission to the college, may be admitted to its list of approved schools. Application for such approval should be made to the President of the college, and must be accompanied by a detailed statement of the course of study.

Candidates for admission to the college from these schools will be admitted to the Freshman Class upon the certificate of the principals, showing that the required studies have been completed satisfactorily. Certificates must be made out on blanks furnished by the college.

A school once entered upon the approved list, will remain there until the college gives notice of unsatisfactory results.

APPROVED SCHOOLS.

Bangor High School, Bangor, Henry K. White, M. A., Principal. Bar Harbor High School, Bar Harbor, Prescott Keyes, Jr., B. C. E., Principal. Bath High School, Bath, H. E. Cole, M. A., Principal. Boynton High School, Eastport, J. B. Warren, M. A., Principal. Brewer High School, Brewer, R. R. Goodell, M. A., Principal. Bridgton Academy, North Bridgton, Elmer E. French, M. A., Principal. Cherryfield Academy, Cherryfield, Leroy E. Dewey, B. A., Principal. Coburn Classical Institute, Waterville, Frank W. Johnson, M. A., Principal. Cony High School, Augusta, A. H. Brainerd, M. A., Principal. Corinth Academy, East Corinth, A. W. Meserve, M. A., Principal. Deering High School, Deering, Edgar H. Crosby, M. A., Principal. Dexter High School, Dexter, E. L. Sampson, M. A., Principal. Dover High School, Dover, W. J. Rideout, Principal. East Maine Conference Seminary, Bucksport, Rev. A. F. Chase, Ph. D., President. Edward Little High School, Auburn, J. F. Moody, M. A., Principal. Ellsworth High School, Ellsworth, W. H. Dresser, B. A., Principal. English High School, Boston, Mass., F. A. Waterhouse, Head Master. Foxcroft Academy, Foxcroft, W. F. Sims, B. A., Principal. Framingham High School, Framingham, Mass., J. H. Parsons, M. A., Principal. Gardiner High School, Gardiner, William L. Powers, M. A., Principal. Greeley Institute, Cumberland Center, Edgar L. Pennell, B. A., Principal. Hampden Academy, Hampden, Fred W. Flood, B. A., Principal.

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Limington Academy, Limington, Charles L. Orton, B. A., Principal. Lincoln Academy, West Poland, F. E. Hanscom, Principal. Maine Weslevan Seminary, Kent's Hill, Rev. G. W. Gallagher, D. D., President. Milo High School, Milo, George H. Gould, Principal. Monson Academy, Monson, L. E. Moulton, Principal. North Yarmouth Academy, Yarmouth, Rev. B. P. Snow, M. A., Principal. Norway High School, Norway, A. G. Wiley, Principal. Orono High School, Orono, S. H. Powell, M. A., Principal. Parsonsfield Seminary and Piper Free High School, North Parsonsfield, Isaiah Trufant, M. A., Principal. Portland High School, Portland, Albro E. Chase, Principal. Ricker Classical Institute, Houlton, A. M. Thomas, M. A., Principal. Rockland High School, Rockland, George F. Kenney, Principal. Skowhegan High School, Skowhegan, W. N. Donovan, M. A., Principal. South Paris High School, South Paris, Henry Fletcher, M. A., Principal. Thornton Academy, Saco, Edwin P. Sampson, M. A., Principal. Topsham High School, Topsham. Principal. Victor Union School, Victor, N. Y., George Ray Wicker, B. A., Principal. Waterville High School, Waterville, Dennis E. Bowman, B. A., Principal. Washington Academy, East Machias, G. F. Simpson, B. A., Principal. Westbrook High School, Westbrook, F. W. Freeman, M. A., Principal. Yarmouth High School, Yarmouthville, H. M. Moore, B. A., Principal.

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VIEW IN THE CAMPUS.

THE BUILDINGS AND THEIR EQUIPMENT.

WINGATE HALL.-The most conspicuous building on the campus, Wingate Hall, named in honor of William P. Wingate of Bangor, who was long an honored member of the board of trustees, is a three-story brick structure rectangular in form, with a handsome tower furnished with a clock. It was erected for the departments of civil and mechanical engineering, but is at present occupied in part by other departments. On the ground floor are two large designing rooms, recitation rooms, armory, instrument rooms, and private offices for the professors of civil and mechanical engineering. On the second floor is a handsome room occupied by the Young Men's Christian Association, the offices and recitation rooms of the professors of mathematics, and physics, the physical laboratory and apparatus room. On the third floor are the large drawing rooms, well lighted, and said to be the best of their kind in New England. In the basement are the testing room of the department of civil engineering and the laboratory for electrical measurements and optics. The testing room contains a Riehlé testing machine of 60,000-pounds capacity, a cement testing machine, etc. The testing machines are driven by the engine used for forcing air through the building. The electrical laboratory contains a dark room, solid stone tables, and working accommodations for twenty students.

OAK HALL.—North of Wingate Hall is Oak Hall, a substantial four-story brick building used as a dormitory, named in honor of Lyndon Oak of Garland, for many years a useful member of the board of trustees. It contains forty-nine rooms for students, bath rooms, and reading room, is heated by steam, supplied with water, and lighted by electricity. It was remodeled and re-finished in 1895.

FERNALD HALL.—This building, named in honor of Merritt C. Fernald, Ph. D., president of the college from 1879 to 1893, is a two-story brick building, situated south of Wingate Hall. It contains twelve large, well lighted and well arranged rooms devoted to the needs of the department of chemistry. On the first floor are the qualitative and quantitative laboratories, supplied with fume closets, water, and gas; and the quantitative laboratory has in addition, steam cups for evaporation, and drying closets. On this floor are a recitation room, a balance room, supplied with an assay balance and eight fine analytical balances. a stock room containing all necessary apparatus, and the office and private laboratory of the professor of chemistry. On the second floor are a large lecture room, the museum of chemistry, the laboratory of mineralogy, equipped with the apparatus necessary for the determination of minerals, and a room for use in spectroscopic and sugar work, gas analysis, water analysis, and original investigation. In this room is also an outfit for bacteriological examination of water, including two Reichert's microscopes, with six objectives, thermostats, and heating apparatus, and sterilizers for steam and dry heat, together with all necessary accessories. A room under the roof is fitted up for photographic work; adjoining this is a well equipped dark room. The photographic outfit includes a burnisher, copying camera, an 8 by 10 inch camera with Zeiss anastigmatic lens for use in preparing topographical maps for engineers from photographs. In the basement is an assay laboratory supplied with large and small furnaces, a crusher, grinding plate, etc.

The department of chemistry is well supplied with lecture apparatus for illustrative purposes. The greater part of the chemical library, including the current and bound volumes of magazines, is kept in this building.

COBURN HALL.-Directly south of Fernald Hall is Coburn Hall, named in honor of Abner Coburn of Skowhegan, the chief benefactor of the college. It is a brick building, three stories in height and finished in hard woods. On the first floor are located the laboratory and recitation room of the professor of agriculture, the recitation room of the professor of English, the reading room, and the library. The latter is a well lighted room about forty feet square, fitted up with the best modern library furniture. About 10,000 volumes, exclusive of pamphlets, are on its shelves, and the number of books is rapidly increasing. On the walls are portraits of Governor Coburn, President Allen, and President Fernald. On the second floor are the botanical and entomological laboratories and recitation rooms of the professors of natural history, civics, and modern languages. Directly over the library is the museum, a handsome room extending through two stories. The collections exhibited here, already large and constantly increasing, will soon outgrow their present quarters. On the third floor is the college chapel capable of seating four hundred persons. In the basement is the college office.

THE MACHINE SHOP.—In the rear of Fernald Hall is the Machine Shop, a wooden building 125 feet long, and two stories high, containing a foundry, forge shop, carpenter shop, machine shop, and tool room. The shop is thoroughly equipped with one 18-inch cupola furnace, ladles, slickers, trowels, rammers, shovels, bellows, etc., power blast forges, anvils, tongs and cutters, heading tools, blower, exhaust fan, sledges, etc., engine lathes, planers, shaper, milling machine, drills, double head emery grinder, taps, dies, reamers, mandrels, drills, milling cutters, wrenches, chucks, and lathe dogs, benches and vises, saw benches with attachments, jig saw, planers, lathes, tool grinder, carpenter's tools, work benches, vises, and cases for tools. Power for running the machinery is furnished by a 60-horse-power steam engine.

THE EXPERIMENT STATION.—South of the Machine Shop stands a substantial two-story brick building which is devoted to the uses of the Agricultural Experiment Station. On the ground floor are the journal room, reagent room, the director's private laboratory, nitrogen room, and the laboratory used in the analyis of fertilizers, and in original investigation. On the second floor are the general office, the director's private office, the bacteriological laboratory, and a storage room for books and pamphlets. The building is heated by steam, lighted by gas, and thoroughly equipped with apparatus.

THE HORTICUL/TURAL BUILDING.—East of the Experiment Station is the Horticultural Building, consisting of a headhouse and three greenhouses. In the head-house are the office of the professor of horticulture, a working room, a seed storage room, a photographing room, an attendant's room, and a room used for storage. The main greenhouse, 20 feet by 100 feet, is devoted to the use of the Experiment Station, and to the instruction of students. A second structure, 20 feet by 80 feet, running parallel to the main greenhouse, is divided, one-half being used for growing plants, and the remainder as a potting and storage room. The third greenhouse is designed for investigations in plant nutrition. In the south end of this building is the conservatory.

THE DAIRY BUILDING.—The Dairy Building, 50 feet by 42 feet, contains a milk room, a butter room, a cheese room, a cold storage room, a cheese curing room, a lecture room, the office of the professor of animal industry, and a laboratory. It is supplied with a Sharpless cream separator, a United States separator, a De Laval hand cream separator, creamers, churns, butter workers, cream and cheese tempering vats, weighing tanks, Babcock testers, and other appliances necessary for teaching the most approved methods of handling milk, cream, butter, and cheese. The building is heated with steam and supplied with hot and cold water. Power is furnished by a 6-horse power engine, and by a baby tread horse power.

OTHER BUILDINGS.—In addition to the buildings already described, there are nine others devoted to various college purposes. These include the President's house, three fraternity club houses, a chapter house, the farm house, and two large barns.

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DEPARTMENTS OF INSTRUCTION.

A-ENGLISH.

PROFESSOR ESTABROOKE.

A 1. RHETORIC.—The classification of sentences—rhetorical, grammatical; analysis of the sentence with reference to punctuation; exercises in punctuation; diction, with special reference to purity, propriety, and precision of language; clearness, strength, and unity of sentences; extended study of the paragraph; themes—including the narrowing of the subject from general to particulars; construction of outline, etc.; fortnightly exercises in extemporaneous speaking; frequent exercises in extemporaneous writing; formal essays.

The text-book is Mead's Rhetoric. Five hours a fortnight for sixteen weeks.

A 2. RHETORIC.—Extended study of narration and description, argumentative composition, and persuasion; construction of analytical outlines of selections from Burke, Webster, Macaulay, and others; practice in different kinds of composition; exercises in extemporaneous speaking and writing as in A 1.

The text-book is A. S. Hill's Principles of Rhetoric. *Five* hours a fortnight for twenty weeks.

A 3. ANGLO-SAXON.—Elements of Anglo-Saxon grammar; reading of easy prose, such as the Gospel of St. John, selections from Ælfric's Homilies, the Voyages of Wulfstan and Othere, selections from the Anglo-Saxon Chronicle. Constant reference is made to the relation of Anglo-Saxon to modern English.

The text-books are Cook's Grammar and Corson's Handbook of Anglo-Saxon and Early English. *Five hours a fortnight for twenty weeks.*

A 4. LIBRARY WORK.—Work in the history of the origin and development of the English language. Lounsbury's History of the English Language will be taken as the nucleus of that work, and while reading this the student will also read, in whole or in part, Marsh's Lectures on the English Language, Whitney's Life and Growth of Language, Farrar's Language and Languages, Earl's Philology of the English Tongue, Matthews' Words, their Use and Abuse, Wheeler's Byeways of Literature, the works of Muller, White, Latham, and others.

† Five hours a week during the fall term and *†* four hours a week during the spring term.

A 5. ENGLISH LITERATURE.—The text-book used in Painter's Introduction to English Literature, which is supplemented by frequent lectures. Some of the masterpieces of our language, together with the historical and social conditions under which they were produced, are studied in detail. The student prepares frequent essays upon the times and characters studied, makes analyses of the books, and writes critical reviews of the same. The work of the classroom is supplemented by study in the library.

Five hours a week for sixteen weeks.

A 6. DECLAMATIONS.—An attempt is made to train the student to study his author intelligently, to deliver his voice correctly, to use appropriate inflections and emphasis, to illustrate his thought by fitting gestures, to gain self control, and to acquire a good stage presence. During his freshman year he is required to give before his class ten declamations—four in the fall and six in the spring. A like number of declamations is required during his sophomore year. When he becomes a junior he speaks before the whole student body—two declamations in the fall, three in the spring. In his senior year he gives three public orations, each containing 1500 words or more. In the fall term of the senior year he takes part in a prize debate.

A 7. THEMES.—During his sophomore year the student writes five themes, each containing from 1200 to 1500 words. The themes are historical in character—the results of the student's reading on special epochs of history, or of his study of the lives of historic men. In his junior year he prepares the same number of themes, each containing from 1.500 to 2,000 words. He also submits a theme for a prize at the close of the year.

A 8. EUROPEAN LITERATURE.—This course is designed to give an outline of the best literature of the principal European nations, since the revival of learning. The prominent authors of each nation are studied, chronologically to bring out the mutual relations of the different literatures. The class-room work is supplemented by work in the library. No text-book is used.

Five hours a week for twenty weeks. MISS FERNALD.

B-MODERN LANGUAGES.

MR. NICHOLS.

B 1. FRENCH.—The object of this course is to enable the student to acquire not only the essentials of the grammar, but also the ability to read moderately easy novels. Composition and phonetics are used as aids to grammar and pronunciation.

The books used at present are: Van Daell, Introduction to the French Language; Erckmann-Chatrian, Le Conserit de 1813; Molière, L'Avare.

Five hours a week for sixteen weeks.

B 2. FRENCH.—It is aimed in this course to increase [the vocabulary of the student and at the same time to give him a glimpse at the literature of the 19th and 17th centuries. References to the more subtle parts of grammar.

The text-books are: Merimée, Colomba; Maupassant, Contes et Nouvelles; Musset, Selections; Hugo, Hernani; Corneille, Polyeucte; Racine, Andromaque; Molière, Le Bourgeoise Gentilhomme.

Five hours a week for twenty weeks.

B 3. FRENCH.—Readings in one or two authors of the 18th century, especially Voltaire and Rousseau.

Five hours a fortnight for sixteen weeks.

B 4. FRENCH.—At least one of the chefs-d'oeuvre of the classicists will be read. Corneille, Le Cid; Racine, Phedre; Molière, Les Precieuses Ridicules, etc.

Five hours a fortnight for twenty weeks.

B 5. GERMAN.—A general introductory course covering the main parts of the grammar. Otis, Elementary German; Stern, Studien und Plaudereien; Storm, Immensee.

Five hours a week for sixteen weeks.

B 6. GERMAN.—Riehl, Burg Neideck; Lessing, Minna von Barnhelm; Schiller, Wilhelm Tell; Goethe, Egmont.

Five hours a week for twenty weeks.

B 7. GERMAN.—A course in Goethe's Faust. Five hours a fortnight for sixteen weeks.

B 8. GERMAN.-Schiller's Wallenstein.

Five hours a fortnight for twenty weeks.

B 9. SPANISH.—The object of this course is the acquisition of the ability to read easy Spanish with facility. A brief study of Spanish literature is included. Students must have pursued previously the courses in French. This course alternates with Italian, beginning in the spring term of even years.

The text-books are: Ollendorff's Method, and Don Quixote. *Five hours a fortnight for twenty weeks*. **PROF. ROGERS.**

B 10. ITALIAN.—The object of this course is the acquisition of the ability to read easy Italian with facility. A brief study of Italian literature is included. Students must have pursued previously the courses in French. This course alternates with Spanish, beginning in the spring term of odd years.

The text-books are Grandgent's Italian Grammar and Pellico's Le Mie Pregione.

Five hours a fortnight for twenty weeks. PROF. ROGERS.

There will be sight and collateral reading in all the modern language courses.

Such attention will be given to phonetics and conversation as shall be found possible.

C-LOGIC AND CIVICS.

PROFESSOR ROGERS.

C 1. PSYCHOLOGY.—Psychology is taken up as a preliminary to logic. In the brief time allotted to this subject only its out– lines can be considered.

Five hours a week for ten weeks.

C 2. LOGIC.—The object of this course is to give the student a just appreciation of the functions of language as a means of expressing thought, and familiarity with the principles of deductive and inductive reasoning. The student is given frequent drill in the application of logical principles, with the idea that not only should these principles be comprehended, but that they should be so digested and assimilated as to make them a part of his intellectual fibre.

The instruction is given mainly by lectures.

Five hours a week for ten weeks.

C 3. GENERAL HISTORY.—The text-book is Myer's General History.

One hour a week for thirty-six weeks.

C 4. ENGLISH HISTORY.—The text-book is Green's Shorter History of the English People.

Five hours a fortnight for sixteen weeks.

C 5. AMERICAN HISTORY.—Lectures, supplemented by topical investigation and study. Two hours a week for twenty weeks.

C 6. POLITICAL ECONOMY.—Instruction is given by lectures. Topical readings and investigation are required. Recognizing that the basis of economics is in the advancing civilization and changing conditions of the people, that its objective point is not ultimate principles, but the most advantageous adaptation of present means to these conditions, the aim of the instruction given is not to supply the student with references ready made,
but to teach him to think for himself. With the habit of logical and systematic thought upon these subjects once acquired, the best sources for information upon economic matters are not the text-books of ten, fifteen, or fifty years ago, but the daily newspaper; for it is in comprehending the questions of public policy of the present day that the study of political economy does its work in making men better fitted for the responsible duties of citizenship.

Five hours a week for twenty weeks.

C 7. MUNICIPAL LAW.—Lectures, setting forth the general principles of law. Among the topics discussed are the general principles of contracts, sales, notes and bills, conveyancing, agency, bailments, and insurance. These subjects are considered very briefly and generally; but it is believed that the instruction given, in addition to its educational value, will be useful in preventing vexatious and expensive litigation.

One hour a week for twenty weeks.

C 8. CONSTITUTIONAL LAW AND HISTORY.—Instruction is given mainly by lectures on which the student is required to make copious notes and to take weekly examinations. The course includes an outline of Anglo-Saxon institutions, the development of the English Constitution until modern times, the growth and political conditions of the American colonies prior to their independence, the Articles of Confederation, the causes leading to the adoption of the Constitutions, clause by clause, from historical and legal standpoints. The political history of the United States is discussed as fully as time permits. Many of the principles of international law are discussed in connection with this subject.

Five hours a week for sixteen weeks.

C 9. INTERNATIONAL LAW.—The text-book is Wolsey's International Law.

Four hours a week for twenty weeks.

C 10. THE PHILOSOPHY OF HISTORY.—The literature, learning, political and economic conditions of the great historic nations are discussed, and the growth of the institutions carefully considered. Fisher's Outlines of General History serves as a basis for the work done, and is supplemented by lectures and topical studies.

Five hours a fortnight for sixteen weeks.

C 11. HISTORY OF PHILOSOPHY.—Schwegler's History of Philosophy is used as a text-book.

Five hours a fortnight for sixteen weeks.

C 12. ANTHROPOLOGY.—A study of primitive institutions and customs.

The text-book is Tylor's Anthropology. Two hours a week for twenty weeks.

C 13. LIBRARY WORK.—The aim of this course is to familiarize the student with not only general literature, but also the literature of history and economics and to teach him to make critical and independent investigation of questions arising in connection with these subjects.

+ Five hours a week for twenty weeks.

D-MATHEMATICS AND ASTRONOMY.

PROFESSOR HART; MR. ROBINSON.

D 1. SOLID GEOMETRY.—Books 6, 7, 8, of Wells' Solid Geometry, including applications to the mensuration of solids, and original demonstrations.

Five hours a week for eight weeks. MR. ROBINSON.

D 2. ALGEBRA.—Review of quadratic equations and of the binomial theorem with integral, fractional, and negative exponents; variation; progression; convergence and divergence of series; undetermined co-efficients; partial fractions; permutations and combinations; probability; logari hms, including the solution of arithmetical problems and application to compound interest and insurance; exponential and logarithmic series and computation of logarithms; the theory of equations.

The text-book is Wells' College Algebra. Five hours a week for sixteen weeks. PROF. HART; MR. ROBINSON.

D 3. TRIGONOMETRY.—Plane trigonometry. Proof of formulas by means of the ratio definitions of the functions; the application of the formulas to the solution of trigonometric equations; solution of right triangles and of oblique triangles, both by natural values of the functions and by logarithms. Spherical trigonometry. Elementary formulas, and solution of right triangles.

The text-book is Bowser's Elements of Trigonometry. Five hours a week for twelve weeks. PROF. HART, MR. ROBINSON.

D 4. ANALYTICAL GEOMETRY.—An elementary course, including the study of the point, right line, circle, ellipse, parabola, and hyperbola referred to rectangular axes.

The text-book is Nichols' Analytic Geometry. Five hours a fortnight for sixteen weeks. PROF. HART.

D 5. ANALYTICAL GEOMETRY.—A more extended course; treatment of the straight line and conic sections, including

polar and oblique co-ordinates; equation of the second degree; introduction to solid analytic geometry.

The text-book is Nichols' Analytic Geometry. Five hours a week for sixteen weeks. PROF. HART.

D 6. CALCULUS.—Differentiation of algebraic, trigonometric, anti-trigonometric, exponential, and logarithmic functions; successive differentiation. Integration by fundamental formulas; integration regarded as a summation; definite integrals.

The text-book is Osborne's Integral and Differential Calculus. Five hours a fortnight for twenty weeks. PROF. HART; PRESI-DENT HARRIS; MR. ROBINSON.

D 7. CALCULUS.—The application of differentiation to the development of functions in series; to the study of plane curves in determinate forms; maxima and minima. Integration of rational fractions; integration by rationalization, by parts, and by reduction formulæ; successive integration; applications to finding the length of curves, areas, volumes, and to problems in mechanics and physics.

The text-book is Osborne's Differential and Integral Calculus. Five hours a week for sixteen weeks. PROF. HART.

D 8. DESCRIPTIVE ASTRONOMY.—The text-book is supplemented by informal lectures, and illustrated by the Trouvelot drawings of celestial objects, lantern slides, and observations with a 4-inch Clark equatorial telescope.

The text-book is Young's Elements of Astronomy. *Five hours* a fortnight for twenty weeks. **PROF. HART.**

D 9. PRACTICAL ASTRONOMY.—Problems in the conversion of time, the determination of terrestrial latitudes and longitudes, and the establishment of meridian lines. The instruments used are the sextant and artificial horizon, a portable chronometer, theodolite, and verticle circle. The problems are, for the most part, made up from data taken from the students' own observations.

Five hours a fortnight for twenty weeks. PROF. HART.

D 10. ADVANCED ALGEBRA.—Determinants and the solution of higher equations.

Five hours a fortnight for twenty weeks. PROF. HART.

D 11. MODERN ANALYTIC GEOMETRY.—An introduction to the use of trilinear co-ordinates, determinants, and the abridged notation in the study of the conic sections and solid geometry.

The text-book used this year is W. B. Smith's Co-ordinate Geometry. This course and the three following will be varied from year to year to meet the needs of those who wish to take them. Given in 1895–6 and aliernate years. *Five hours a fortnight for sixteen weeks*. PROF. HART. D 12. ADVANCED INTEGRAL CALCULUS. Chapters from Byerly's Integral Calculus, with lectures. Given in 1895-6 and alternate years. *Five hours a fortnight for twenty weeks*. PROF. HART.

D 13. THEORY OF EQUATIONS.—Given in 1896–7 and alternate years. Five hours a fortnight for sixteen weeks. PROF. HART.

D 14. DIFFERENTIAL EQUATIONS.—Given in 1896-7 and alternate years.

Five hours a fortnight for twenty weeks. PROF. HART.

D 15. PRACTICAL ASTRONOMY.—The theory and use of the sextant, universal instrument, transit and zenith telescope. Given in 1896–97, and alternate years.

Five hours a fortnight for sixteen weeks and five hours a week for twenty weeks. PROF. HART.

E-PHYSICS.

PROFESSOR STEVENS*; MR. LANPHEAR; MR. DAMON.

E 1. GENERAL PHYSICS.—Recitations and problems; experiments before the class and lectures on modern physical theories, and subjects not discussed in the text-book.

The text-book is Sheldon's revision of Olmsted's College Philosophy. Three hours a week for sixteen weeks and four hours a week for twenty weeks. MR. LANPHEAR; MR. DAMON.

E 2. ELEMENTARY PHYSICS.—A non-mathematical course, covering the ground of course 1, intended for students in the short course in pharmacy. The recitations are supplemented by lectures and illustrated with experimental demonstrations.

The text-book is Ganot's Physics. Three hours a week for thirty-six weeks. MR. DAMON.

E 3. LABORATORY PHYSICS.—Introductory measurements, including the theory and use of such instruments as the vernier, spherometer, kathetometer, and the hook-gauge; the determination of the co-efficient of friction, the breaking strength of wires, the deflection of beams, the laws of the common and torsion pendulum, and the specific gravity of solids and liquids; the determination of the pitch of a tuning-fork; of specific heat; the use of meteorological instruments; photometry; spectroscopy; measurements of the angle of a prism by Babinet's and Wollaston's goniometers; microscopic measurements and drawings with the camera lucida; various elementary electrical measurements.

† Four hours a week for thirty-six weeks. MR. DAMON.

* On leave.



THE PHYSICAL LABORATORY.

E 4. LABORATORY PHYSICS.—This course is arranged with special reference to the needs of students in the short course in pharmacy, and includes calibration, thermometry, distillation, the theory and use of balances, the determination of specific gravity and the specific heat of solids and liquids by the usual methods.

† Six hours a week for ten weeks. MR. DAMON.

E 5. MECHANICS — This course is designed to give students in the agricultural course, more extended work in mechanics than that offered in course 1. The text-book is Peck's Mechanics. *Two hours a week for ten weeks*. MR. DAMON.

E 6. ADVANCED OPTICS.—This course continues the work in optics done in course 1. It is partly lectures and partly laboratory work. The lectures are based upon such works as Glazebrook, Heath, and Lommel. The laboratory work is chiefly the determination of indices of refraction and wave-lengths of light.

Five hours a fortnight for sixteen weeks. PROF. STEVENS.

E 7. ADVANCED ACOUSTICS.—This course is similar to course 6. Stone's text-book is used. The work of this course is likely to change from year to year. Five hours a fortnight for twenty weeks. PROF. STEVENS.

E 8. MATHEMATICAL PHYSICS.—One course in mathematical physics is offered each year.

Five hours a fortnight for sixteen weeks. PROF. STEVENS.

F-DRAWING.

MR. CHASE.

F 1. DRAWING.—Free-hand work in perspective and model drawing. The text-books for the first eight weeks are Van Foster's Drawing Books U 1–4 and V 1–4. During the last eight weeks the work is carried on by lectures and individual instruction.

+ Five hours a week for sixteen weeks.

F 2. MATHEMATICAL DRAWING.—A short course in the plotting of functions, and in the solution of equations by the graphic method. Lectures and exercises in the drawing-room.

+ Three hours a week for ten weeks.

F 3. MECHANICAL DRAWING.—Instruction and practice in the care and use of drawing instruments, in the drawing of geometrical problems and in the use of water colors. Especial attention is given to accuracy and neatness.

†Five hours a week for twenty weeks.

F 4. MECHANICAL DRAWING.—Problems in shades and shadows, and dimension drawing.

The text-book is Faunce's Mechanical Drawing. *†Seven hours* a week for sixteen weeks.

F 5. GENERAL DRAWING.—Isometric and cabinet projections, and perspective, and the preparation of working drawings. Lectures and exercises in the drawing room.

+Six or ten hours a week for twelve weeks.

F 6. DESCRIPTIVE GEOMETRY.—The time of this course is divided equally between the recitation room and the drawingroom. The work in the drawing-room consists of thirty-six independent problems, of which sixteen are elementary, twelve are tangent problems, and eight are problems in working out the curves of intersection of planes, cylinders, cones, spheres, etc.

The text-book is Church's Descriptive Geometry. Five exercises (counting as four hours) a week for twenty weeks.

F 7. STEREOTOMY—A practical application of the methods of descriptive geometry. The student prepares the drawings required by the stone cutter and mason in building different kinds of masonry structures, such as retaining walls, bridge abutments, piers, and arches. Lectures and exercises in the drawing room.

†Seven hours a week for ten weeks.

G.-CHEMISTRY.

PROFESSOR AUBERT; Mr. COLBY; MR. JACKMAN.

G 1. GENERAL CHEMISTRY.--Recitations and lectures on the general principles of chemistry, illustrated by charts, experiments, etc. This course is designed to give the student a general survey of the theories of chemistry, the preparation and properties of the most important elements and their compounds, and of some of the important chemical industries. It serves as a basis for the other courses. One exercise in each week is given to introductory laboratory work, consisting of the preparation of the more common elements and inorganic compounds, a study of their properties, and of elementary qualitative analysis. The text-books are Fischer's Lessons in Elementary Chemistry, and Hart's Laboratory Exercises for Beginners in Chemistry, supplemented by lectures on qualitative analysis. Five hours a fortnight for thirty-six weeks. PROF. AUBERT; MR. COLBY; MR. JACKMAN.

G 2. CHEMICAL THEORY.—The text-book is Walker and Dobson's Chemical Theory and Serres Principes de Chemie, vols. 1 and 2. *Five hours a fortnight for sixteen weeks*. MR. COLBY.

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G 3. ADVANCED INORGANIC CHEMISTRY.—The text-book is Serres Principes de Chemie, vols. 1 and 2. *Five hours a fortnight* for twenty weeks. MR. COLBY.

G 4. ORGANIC CHEMISTRY.—Lectures and recitations, illustrated by specimens from the collection of organic chemicals; and supplemented by a course in the preparation of organic compounds. The text-book is Serres Principes de Chemie, vol. 3. *Five hours a fortnight for thirty-six weeks.* PROF. AUBERT.

G 5. ORGANIC CHEMISTRY.—A short course setting forth the properties of organic compounds, the general methods of preparing them, and special methods for preparing some of the most important. The text-book is Turpin's Organic Chemistry. *Five hours a fortnight for sixteen weeks.* PROF. AUBERT.

G 6. CHEMICAL READING.—Study and translations of foreign words, reading of the chemical journals, etc.

One hour a week for sixteen weeks. PROF. AUBERT.

G 7. TECHNICAL PROCESSES.—These processes include laboratory methods as well as processes used in the arts. Lectures and notes.

Five hours a fortnight for sixteen weeks. PROF. AUBERT; MR. COLBY.

G 8. THE PREPARATION OF ORGANIC CHEMICALS.—This course is designed to make the student familiar with the more common forms of apparatus and processes used in the preparation and synthesis of organic substances.

Cohen's Practical Organic Chemistry is used for reference. Eleven hours a week for four weeks. PROF. AUBERT.

G 9. PHOTOGRAPHY.—Lectures on photography and photographic chemistry, and practical work in the field and photographic laboratory.

† Two hours a week for sixteen weeks. MR. COLBY.

G 10. MINERALOGY.—A course in determinative mineralogy and blow pipe analysis, designed to make the student familiar with the more common minerals by the use of the working collection, and to teach him to determine unknown minerals by the blow pipe.

The text-books are Dana's Manual of Mineralogy and Petrography and Crosby's Tables for Determination of Minerals.

† Three hours a fortnight for sixteen weeks. MR. COLBY.

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G 11, ANALYTICAL CHEMISTRY.—Qualitative Analysis —The qualitative determination and separation of the acids and bases, supplemented by occasional lectures, the writing out of the reactions involved, and other exercises.

Quantitative Analysis.—Gravimetric determinations of Fe in iron wire—Mg in magnesium wire—Al₂ O_3 and SO₃ in alum—CaO in calcic carbonate—Cl in salt—Cu in copper sulfate—As in arsenious oxyd—Hg in mercuric chlorid—Pb and Sn in solder— Pb, Cu and Zn in brass—SiO₂, Al₂O₃, Fe₂O₃, CaO, MgO and CO₂ in dolomite—complete analysis of feldspar, water analysis, etc. This course is extended in some cases, and for students in agriculture, pharmacy, and preparatory medicine, some of the determinations are replaced by others of greater usefulness to these students.

Agricultural Analysis.—The analysis of fodders, fertilizers, milk, butter and other agricultural products. The methods used are those recommended by the Association of Official Agricultural Chemists. This course is particularly designed for agricultural and chemical students.

Volumetric Analysis and Assaying.—Determinations in acidimetry, alkalimetry, oxydimetry, etc. Special attention is paid to processes used in technical work. A short course in the assay of gold and silver ores is given. The complete course is taken by chemical students. A partial course in volumetric analysis is taken by agricultural and pharmaceutical students.

Toxicology and Biological Analysis.—Determinations of the commoner poisons will be given to preparatory medical, pharmaceutical, and some chemical students.

A short course in biological analysis may be given to preparatory medical and pharmaceutical students. This course includes urine analysis and that of other animal secretions and products, normal and pathological.

The text-books are: Craft's Qualitative Analysis, Appleton's Quantitative Analysis, Medicus Einleitung in die Analyse, Fleisher's Volumetric Analysis, Clark's Assay Notes, Ricketts' Assay Notes.

The time devoted to analytical chemistry varies. It is stated in the tables. PROF. AUBERT; MR. COLBY.

G 12. THESIS WORK.—Each student is required, as a condition of graduation, to prepare a thesis on some chemical subject embodying the results of original work in analysis or research.

† Twenty-two hours a week for sixteen weeks.

H-NATURAL HISTORY.

PROFESSOR HARVEY.

H 1. CRYPTOGAMIC BOTANY.—A detailed study of about thirty type forms of the prominent groups of non-flowering plants. Special attention is given to useful and injurious forms. Fungicides and spraying apparatus receive attention. Students are required to collect specimens and prepare them for the herbarium. The text-book is Bessey's Botany. Martin and Huxley's Biology, Arthur, Barnes and Coulter's Plant Dissection, Campbell's Structural and Systematic Botany, Sedgwick and Wilson's General Biology, Bentley's Botany, Spaulding's Introduction to Botany, Dodge's Practical Biology, Bennet and Murray's Cryptogamic Botany are used for reference. Special articles and monographs are in constant use. The facilities are a convenient laboratory, a herbarium of five thousand species, a set of Brendel models, charts, and a rich local cryptogamic flora.

Five hours a fortnight for sixteen weeks.

H 2. LABORATORY BOTANY.—Instruction in the use of the microscope, micrometers, camera lucida and microtome. The preparation of slides. Analysis, description, classification, illustration of cryptogams, and their preparation for the herbarium.

 \dagger Two hours a week for sixteen weeks for the agricultural, preparatory medical, pharmacy, and short pharmacy courses, or \dagger four hours a week for ten weeks, for the scientific course.

H 3. ADVANCED PHYSIOLOGY.—Lectures on the anatomy, physiology, hygiene and pathology of the human body. The work is illustrated by the use of a skeleton, manikin, models of the human larynx, ear, eye, and brain, charts, microscopic slides, fresh, dried, and alcoholic material.

Five hours a fortnight for twenty weeks.

H 4. LABORATORY PHYSIOLOGY.—Examination of skeleton, manikin, charts, models, microscopic slides, and the dissection of lower animals.

† Two hours a week for twenty weeks.

H 5. INVERTEBRATE ZOOLOGY.—A detailed study of type forms of all the branches of invertebrates.

Packard's Zoology is used as a guide. Martin and Huxley's, Brooks', Colton's, Bumpus', Dodge's and Osborne's laboratory manuals, when applicable, are followed in laboratory practice. The student uses the compound microscope in examining minute form's and tissues, makes dissections and careful drawings, and classifies the forms studied. Fresh, dried, and alcoholic materials, charts, models, and the working library of reference books are in constant use.

Five hours a fortnight for sixteen weeks.

H 6. LABORATORY ZOOLOGY.—This course is a continuation of course 5. Preparatory medical students give especial attention to helminthology.

† Five hours a week for sixteen weeks, in the fall term, or four hours a week for twenty weeks in the spring term.

H 7. COMPARATIVE VERTEBRATE ZOOLOGY.—A comparative study of type forms of vertebrate animals. The methods and

facilities for work are the same as in course 5. The department is provided with a set of Auzoux's models and a good working collection of type forms. Special attention is given to the zoology of the domestic animals.

Packard's Zoology is used as a guide. Laboratory manuals and monographs are used in addition. Seven hours a fortnight for sixteen weeks.

H 8. LABORATORY ZOOLOGY.—Museum work; study of charts, and models, and of the life history of special forms; dissections of a fish, frog, turtle, bird, and rat; methods of preparing specimens for collections.

† Four hours a week for twenty weeks.

H 9. ENTOMOLOGY.—A study of the anatomy, physiology, classification, and economic importance of insects. Especial attention is given to injurious and beneficial insects. Insecticides and approved methods of destroying insects are considered. The department has for illustration a collection of insects, charts, models, and an abundant insect fauna.

The text-books are Packard's Entomology for Beginners, and Comstock's Entomology. Riley's, Fitch's, and Lintuer's Reports, the Illinois Reports, the entomological publications of the U.S. Department of Agriculture, and various other State and experiment station reports and current literature are used for reference. Five hours a fortnight for twenty weeks.

H 10. GEOLOGY.—Especial attention is given to the origin and formation of soils, to the method of conducting a geological survey, and to the geology of Maine. Excursions are made to points of interest. The course is illustrated by mineral, rock, and fossil specimens, and by charts, maps, and diagrams.

The text-book is Le Conte's Elements of Geology. Five hours a fortnight for sixteen weeks.

H 11. HUMAN ANATOMY.—A detailed study of the human skeleton. Examination of a manikin showing details of the respiratory, digestive, circulatory, reproductive, depurgatory, nervous, and muscular systems, and of the organs of the special senses.

The text-book is Gray's Anatomy. Five hours a fortnight for twenty weeks.

I—AGRICULTURE.

PROFESSOR JORDAN; PROFESSOR GOWELL; DR. RUSSELL.

I 1. BIOLOGICAL CHEMISTRY.—Lectures and recitations on the chemical changes in nature important to agriculture, the composition of air, soils, natural waters, and plants, the sources and assimilation of plant food, and the chemical processes and methods of investigation by which these subjects are studied. Haliburton's Chemical Physiology and Pathology. Five hours a fortnight for sixteen weeks. PROF. JORDAN.

I 2. BIOLOGICAL CHEMISTRY.—A continuation of course 1. Lectures and recitations in physiological chemistry, including the composition of cattle foods and human foods, the composition of the animal body, the chemical changes involved in the digestion and assimilation of food; also the chemistry of milk and dairy products, and the chemical processes and methods of investigation by which these subjects are studied.

Haliburton's Chemical Physiology and Pathology. *Five hours* a week for twenty weeks. **PROF. JORDAN.**

I 3. AGRICULTURAL CHEMISTRY.—Lectures on the origin, composition, preparation and use of commercial fertilizers, the supply, composition, care and use of farm manures, and the general considerations which pertain to the maintenance of soil fertility.

Five hours a fortnight for eight weeks. PROF. JORDAN.

I 4. AGRICULTURAL PHYSICS.—Lectures on the relation of soils to heat and moisture, the mechanical condition of soils best suited to plant growth, and the objects to be gained by cultivation.

Five hours a fortnight for ten weeks. PROF. JORDAN.

I 5. AGRICULTURAL ENGINEERING.—Lectures on farm drainage, irrigation, water supply for stock and household, farm implements and machinery, handling crops, and construction of farm buildings, sites, etc.

Five hours a fortnight for ten weeks. PROF. GOWELL.

I 6. STOCK FEEDING.—Lectures on the production of cattle foods and their composition, on formulating rations for milk and meat production, and application of the lectures to the animals in the herd.

The text-books are Armsby's Cattle Feeding, Stewart's Feeding Animals, and experiment station reports. *Five hours a fortnight for eight weeks.* PROF. GOWELL.

I 7. DAIRYING.—Lectures upon the formation and composition of milk; sources of infection; bacteria and their relation to dairying; ferments and their effects.

The text-books are Grotenfelt and Woll's Principles of Modern Dairy Practice, Stewart's Dairyman's Manual, Flint's Milch Cows and Dairy Farming, and Arnold's American Dairying. *Five hours a week for six weeks.* **PROF.** GOWELL.

I 8. STOCK BREEDING.—Lectures upon animal reproduction, the principles of breeding, and the means of improvement and development. Practice is given in judging animals by a scale of points.

The text-books are Miles's Cattle Breeding, Saunders's Horse Breeding, and Curtis' Breeds.

Five hours a week for eight weeks. PROF. GOWELL.

I 9. POULTRY INDUSTRY.—Lectures, with practice in handling poultry, and judging by a scale of points; in breeding; in hatching by natural and artificial processes; and in the use of machinery. Caponizing, and the construction and arrangement of buildings receive careful attention.

Five hours a week for six weeks. PROF. GOWELL.

I 10. DAIRY PRACTICE.—The treatment and handling of milk and cream; milk testing for fat and other solids; aeration, pasteurization and sterilization of milk and cream; the application of acid tests and ferments to butter and cheese making; operating and caring for the boiler, engine, gravity creamers, centrifugal separators, churns, workers, vats, presses, and the making, curing and judging of butter and cheese, together with the business management of factories and creameries.

Each student must provide himself with two suits of clothes made of white drilling.

† Five hours a week for twenty weeks. **PROF. GOWELL.**

I 11. VETERINARY SCIENCE.—Lectures, demonstrations and clinics, illustrated by models, natural preparations, and living animals. Particular attention is given to means of preserving health, the nursing of sick animals, the prevention of contagious diseases, and the treatment of the most common and simple diseases of cattle and horses.

Five hours a fortnight for twenty weeks. DR. RUSSELL.

I 12. VETERINARY PRACTICE.—As far as there is opportunity students will make practical application of the instruction given in the lectures on veterinary science. They will prescribe and administer simple remedies and have the care of sick animals.

† Two hours a week for twenty weeks. DR. RUSSELL.

I 13. BACTERIOLOGY.—Methods of cultivating bacteria, the morphological and biological character of bacteria and fungi, particularly of those relating to disease, and of those of importance from an economic standpoint, the methods of making biological examinations of air, water, etc.

† Five hours a week for ten weeks. DR. RUSSELL.

I 14. LABORATORY BACTERIOLOGY.—An advanced course. *† Ten hours a week for twenty weeks.* DR. RUSSELL.

J-HORTICULTURE.

PROFESSOR MUNSON.

J 1. POMOLOGY. A discussion of the economic importance, methods of culture, and marketing of fruits; also a consideration of the principles and practice of spraying plants.

Five hours a fortnight for ten weeks.

J 2. OLERICULTURE, OR VEGETABLE GARDENING.—Lectures concerning the leading garden vegetables, with directions for their culture in the field and under glass; also practical demonstrations.

Five hours a fortnight for ten weeks.

J 3. PLANT VARIATION.—A discussion of the underlying principles of horticulture. The course includes a consideration of the origin and distribution of cultivated plants; their variation as affected by soil, climate, and cultivation; also a systematic study of plant breeding, including the methods and effects of crossing, the principles of selection, and the influence of heredity. Students in this course must have taken course 6.

Five hours a fortnight for eight weeks.

J 4. LANDSCAPE GARDENING.—A discussion of the principles of landscape art and their application to the embellishment of rural surroundings.

Five hours a fortnight for eight weeks.

J 5. LABORATORY HORTICULTURE.—Practical work in the propagation and culture of plants, the construction and management of forcing structures, and the making of plans for rural improvements.

†Four hours a week for twenty weeks, and † five hours a week for sixteen weeks, in the junior and senior years respectively.

J 6. GENERAL BOTANY.—Lectures and other class work. A study of the structure and functions of the organs of plants; the relation of the plant to soil and atmosphere; the description, classification, and naming of plants; the relationship of plants of the greatest economic importance. The lectures will be supplemented by a study of charts and Brendel plant models, also by work in the general herbariums, the greenhouses and the field. Gray's Lessons and Manual of Botany is used for reference.

†Five hours a week for twenty weeks.

J 7. HISTOLOGY OF PLANTS.—A description and comparison of tissues with investigation of the minute anatomy of vegetable organs and studies in the phenomena of cell development and fertilization.

†Five hours a week for ten weeks.

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K-PHARMACY.

MR. JACKMAN.

K 1. PHYSICAL AND OFFICIAL PHARMACY.—The history of pharmacopœias, dispensatories, etc.; weights and measures, specific gravity, the pharmaceutical uses of heat, distillation, solution, filtration, etc.; official preparations such as aquæ, liquores, syrupi, glycerita, etc.; pharmaceutical problems, involving percentage solutions, parts by weight, and parts by measure, conversion from one to the other, chemical principles, and equations, actual pharmacy operations.

The text-book is Remington's Practice of Pharmacy. Five hours a week for sixteen weeks

K 2. INORGANIC, ORGANIC, AND EXTEMPORANEOUS PHAR-MACY.—The elements, the official salts, and inorganic acids, their preparation and classification. Organic compounds, their classification, official preparations, official drugs of the Materia Medica classified according to their proximate principles, the preparations of these drugs, etc., animal preparations. Extemporaneous pharmacy; emulsions, capsules, cachets, suppositories, etc.; the principles of dispensing, store management, etc.

The text-book is Remington's Practice of Pharmacy. Five hours a week for sixteen weeks.

K 3. LABORATORY PHARMACY.—Official preparations and tests. The operations of manufacturing pharmacy, including the preparation of granular and scale salts, infusions, syrups, tinctures, etc. Official tests of chemicals, drugs, and preparations, for identity, strength, adulterations, etc.

The text-book is Remington's Practice of Pharmacy, or the U. S. Pharmacopœia. *†Ten hours a week for sixteen weeks*.

K 4. PHARMACOPŒIA AND PRESCRIPTIONS.—A complete review of the pharmacopœia, with especial reference to the chemical and pharmaceutical principles involved in processes and preparations; critical examination of copies of prescriptions from actual files, with reference to inelegance, physiological, pharmaceutical, and chemical incompatibility; doses; methods and order of compounding, etc.

The text-book is Remington's Practice of Pharmacy. Three hours a week for twenty weeks.

K 5. INORGANIC PHARMACOGNASY.—Official and common names, practical exercises in the identification of specimens.

The text-book is the Era Key to the U. S. Pharmacopœia. Three hours a week for sixteen weeks.

K 6. ORGANIC PHARMACOGNASY.—Official and common names, practical exercises.

The text-book is the Era Key to the U. S. Pharmacopœia. Four hours a week for twenty weeks.

K 7. MATERIA MEDICA.—Chemicals and drugs, their nature, uses, classification, therapeutic action, and doses; poisons, and antidotes.

The text-book is White and Wilcox's, or Sayre's Materia Medica. Three hours a week for sixteen weeks.

K 8. THESIS WORK.—Each student is required, as a condition of graduation, to prepare a thesis, embodying the results of original work in analysis or research.

†Ten hours a week for twenty weeks.

L-CIVIL ENGINEERING.

PROFESSOR HAMLIN; ASSISTANT PROFESSOR GROVER*; MR. CUMMINGS.

L 1. PLANE SURVEYING.—This course includes recitations on the general principles of land surveying, the laying out of land, the dividing of land, surveying of public lands, direct leveling, and the variation of the magnetic needle.

The text-book is Staley's Gillespie's Surveying. Five hours a fortnight for twenty weeks. MR. CUMMINGS.

L 2. FIELD WORK IN SURVEYING.—The student is made familiar with the uses of the chain, compass, transit, and level, working with each in the field. Instruments are adjusted, original surveys made, and old lines retraced. Deeds are examined, and descriptions of property traced back in the Penobscot County Registry of Deeds. In the drawing room plats are prepared of the surveys made in the field.

†Two hours a week for ten weeks and †six hours a week for ten weeks. MR. CUMMINGS.

L 3. RAILROAD ENGINEERING.—Lectures and recitations on the theory of railroad curves, switches, turnouts, and slope stakes, the calculation of earth works, and the resistance to trains offered by grades and curves, and the theory of economic location.

The text-book is Searles's Field Engineering. Seven hours a fortnight for twelve weeks. MR. CUMMINGS.

L 4. RAILROAD FIELD AND OFFICE WORK.—The basis of this course is the location and detailed survey of a railroad several miles long. The curves are laid out, levels taken, and all the necessary measurements made to enable the student to compute the excavations and embankments and estimate the cost of construction.

Five or ten hours a week for sixteen weeks. MR. CUMMINGS.

* On leave.

L 5. HIGHWAY ENGINEERING.—Attention is given chiefly to country highways and relates to the location, construction, and improvement of roads under different conditions of soil, climate, and traffic. The text-book is supplemented by lectures.

The text-book is Gillespie's Roads and Railroads. Seven hours a fortnight for four weeks. PROF. HAMLIN; MR. CUMMINGS.

L 6. MECHANICS.—This course consists of problems in the composition and resolution of forces, followed by exercises in finding the moment of inertia, the center of gravity, the shearing force and bending moment.

The text-book is Church's Mechanics of Engineering. Five hours a week for sixteen weeks and five hours a week for twelve weeks. MR. CUMMINGS.

L 7. GRAPHIC STATICS.—The principles involved in the graphical resolution of forces are given by lectures. The stresses in the different parts of various trusses, under uniform or concentrated loads, are determined graphically in the drawing room. Lectures and exercises in the the drawing room.

Five hours a week for eight weeks. MR. CUMMINGS.

L S. SANITARY ENGINEERING.-Land drainage, drainage of houses and towns, plumbing of houses, sewerage of towns and cities, and the ventilation of houses are considered. Lectures.

Seven hours a fortnight for ten weeks. PROF. HAMLIN.

L 9. HIGHER SURVEYING.—The student is taught the use of the plane table, solar compass,—as applied to the survey of public lands—stadia measurements, topographical surveying, and the elements of geodesy, such as the correct measurement of base lines, calculation of triangulation. No text-book is used.

† Ten hours a week for eight weeks. PROF. HAMLIN.

L 10. HYDRAULICS.—The weight, pressure, and motion of water; the flow of water through orifices and through pipes under pressure; the measuring of weirs and weir gauging; the flow of water in open channels, mains and distribution pipes; distribution systems; the construction of water works for towns and cities. The measurement of the flow of rivers is illustrated by the application of the current meter and the various forms of floats to the Penobscot river or some of its large branches. The department is well supplied with apparatus. The course includes frequent lectures and the solution of numerous problems.

The text-books are Fanning's Hydraulics and Church's Mechanics of Engineering. Five hours a week for seven weeks devoted to lectures and †seven hours a week for eight weeks devoted to field work. PROF. HAMLIN.

L 11. MECHANICS OF MATERIALS.—A detailed study of the properties of materials used in engineering structures, such as

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ENTRANCE TO THE CAMPUS.

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iron, steel, wood, and their resistance to bending, breaking, extension, and compression, under the various conditions of practice. The testing laboratory is well equipped.

The text-books are Lanza's Mechanics, Merriman's Mechanics, Church's Mechanics of Material, and lectures. *Five hours a week* for nine weeks. PROF. HAMLIN.

L 12. FOUNDATIONS, MASONRY CONSTRUCTION, AND CEMENTS. —Attention is given to the testing and use of the materials of masonry construction, building stone, brick, cement, and lime. Among the subjects considered are different classes of foundations, natural and artificial; the stability of dams and retaining walls; the designing of bridge piers and abutments. The class room work is supplemented by exercises in the laboratory.

The text-book is Baker's Masonry Construction. Seven hours a fortnight for twenty weeks. MR. CUMMINGS.

L 13. DESIGNING AND THESIS WORK.—The student is taught the method of calculating the stresses in the various forms of roof and bridge trusses, the methods of loading, and makes complete designs for bridges in wood and in iron, working out the dimensions of the parts, and preparing the drawings for the shop.

The text-book is Johnson's Modern Framed Structures. † Seven hours a week for eight weeks and †twelve hours a week for twenty weeks. PROF. HAMLIN.

M-MECHANICAL ENGINEERING.

PROF. FLINT; MR. WEBB; MR. DURGIN.

M 1. MACHINE DESIGN.—This subject is studied in the most practical way. The theoretical rules and formulas are applied to existing machines of standard manufacture for the comparison of the actual and theoretical dimensions. The rules for the dimensions of brackets, beams, posts, etc., are investigated and compared with results obtained by experiments. The subject of riveted joints is fully considered, the student being required to solve numerous problems on the efficiency of the various kinds. Attention is given to the designing of bolts, keys, etc. Lubricants are studied and their adaptability to different kinds of machinery discussed. The subject of work in its various forms is investigated. The work done in the cylinder of an engine is determined by means of the indicator and compared with that done on the crank-pin at the same time. The diameter of line shafting, size of pulleys and crank shafts, weight of fly wheels, size of connecting rods, etc., are calculated in accordance with the best modern practice. In connection with this work the student is required to design a complete speed lathe and make working drawings for its construction. The course includes numerous other exercises of a similar character.

†Seven hours a fortnight for twenty weeks. **PROF. FLINT.**

M 2. CARPENTRY.—Instruction and practice in the care and sharpening of tools, the squaring of stock, and taking work out of wind; followed by practice in making the different joints in soft and hard wood. Particular attention is paid to accuracy of workmanship. Instruction is given in wood turning, intended to acquaint the student with the use of the tools and the ordinary operations of wood turning. The tools are furnished by the department. The charge for materials is \$5.00 a term.

†Six hours a week for sixteen weeks. MR. DURGIN.

M 3. FORGE WORK.—The work begins with the simple operations of drawing and upsetting. Then follow the welding of straight pieces of various sizes, the making of rings, and chain links, the welding of eye bolts and bolt heads, etc. Each student makes from steel a center punch, cold chisels, and a full set of lathe tools, which are finished and tempered for future use in the machine shop. Each student is required to furnish a forging hammer, calipers and square at a cost of \$2.50. The charge for materials is \$5.00 per term. As a part of this course instruction is given in foundry work. Moulding and pouring are done by the student under the instruction of a practical foundryman. The tools are furnished by the college. No extra charges are made.

†Eight hours a week for twenty weeks. MR. WEBB.

M 4. ANALYTIC MECHANICS.—Elementary principles and definitions, composition and resolution of forces, center of gravity, friction, virtual velocities, elementary machines, work and energy, moment of inertia.

The text-book is Bowser's Analytic Mechanics. *Five hours a week for thirty-six weeks*. MR. WEBB.

M 5. KINEMATICS.—This subject is studied with reference to the construction of cams, lobed wheels and gear teeth. The various methods by which one kind of motion may be transformed into another are investigated and analyzed, and illustrated by the solution of practical problems. The construction of cycloidal and involute gears is studied, both theoretically and practically by means of problems and models.

Lectures. *†Five hours a week in the mechanical engineering course,* and *†three hours a week, in the electrical engineering courses, for sixteen weeks.* PROF. FLINT.

M 6. LINK AND VALVE MOTION.—The design and proportion of engine cylinders, steam pipes, and ports, the design and working of engine valves, the setting of eccentrics, adjustable eccentrics, the design and working of the locomotive link motion with its connections. Problems in slide valve and locomotive link motion are worked out in the drawing room.

The text-book is Auchincloss's Link and Valve Motion. Four hours a week in the mechanical engineering course, and two hours a week in the electrical engineering course for sixteen weeks. MR. WEBB.

M 7. MACHINE WORK.—This course commences with exercises in filing and chipping, which occupy from thirty to forty hours. The work then consists of ordinary lathe work, drilling, boring and threading in the lathe, making cut gears, machinist's taps, finished bolts, and exercises on the planers and shaper. In addition to the tools procured and made while in the forge shop, each student is required to provide himself with center guage, steel scale, and a set of files at a cost of \$2.50. The charge for materials is \$5.00 a term.

The time devoted to machine work varies. It is stated in the tables. MR. WEBB.

M 8. STEAM ENGINE.—The steam engine is studied with referenence to its adaptability as a prime mover or source of power. The various details of a steam engine are calculated and drawings of them are made. The results are compared with those of the best practice. The student is given a thorough drill with the indicator. By means of diagrams he is taught to determine the setting of valves, to calculate the horse power, and to estimate the water consumption, and the number of pounds of coal required per horse-power per hour. This study makes the student familiar with the indicator and planimeter, and the method of making efficiency tests of steam plants. One-third of the time is given to recitations and two-thirds to drawings.

Two hours a week for twenty-six weeks in the mechanical engineering course, and for sixteen in the electrical engineering courses. PROF. FLINT.

M 9. HYDRO-MECHANICS.—The behavior of liquids in motion and under pressure, flowing through pipes and in open channels, with problems involving a large number of different conditions, is studied for its usefulness in determining the size of pipes suitable for various purposes.

The text-book is Bowser's Hydromechanics. Three hours α fortnight for twenty weeks. PROF. FLINT.

M 10. STEAM BOILERS.—The characteristics of steam and its behavior in pipes and boilers, with particular attention to its action in the cylinders of engines are considered. Problems involving the properties of saturated steam are solved. The student is required to design a boiler to run an engine under given conditions, and to make a complete set of detailed drawings for its construction. He is also required to calculate sizes of steam pipes and safety valves.

Five hours a week for twenty weeks, or for those who elect D 13 or D 15, five hours a fortnight for twenty weeks. PROF. FLINT.

M 11. STEAM BOILERS.—A brief course, similar to M 10, for the electrical engineering course.

Two hours a week for twenty weeks. PROF. FLINT.

M 12. TESTING.—Instruction is given in testing steam guages, boilers, etc. The properties of the various metals and their behavior under tension and compression, are illustrated by the use of the testing machine.

Two hours a week for ten weeks. PROF. FLINT.

M 13. STEAM ENGINE DESIGNING.—Drawings are made of the more important parts of the design worked out in course 8. *† Ten hours a week for sixteen weeks.* PROF. FLINT.

M 14. STEAM BOILER DESIGNING—Drawings are made in detail from the calculations worked out in course 10.

†Ten hours a week for ten weeks. **PROF. FLINT.**

M 15. THESIS WORK.—Each student is required to prepare a thesis, as a condition of graduation, which is to consist of a design of some piece of machinery.

† Ten hours a week for ten weeks. **PROF.** FLINT.

N-ELECTRICAL ENGINEERING.

PROFESSOR STEVENS*; MR. LANPHEAR.

N 1. ELECTRICITY AND MAGNETISM.—This course continues the subject of electricity and magnetism begun in physics. Lectures are given, and laboratory methods and results are discussed with the class.

The text-book is Silvanus Thompson's Electricity [and Magnetism. Two hours a week for sixteen weeks.

N 2. ELECTRICITY AND MAGNETISM.—A continuation of course 1. The work is more directly connected with the dynamo and apparatus connected with its operation.

Three hours a week for twenty weeks.

N 3. ELECTRICAL MEASUREMENTS AND TESTING.—This is the usual junior laboratory course. The work consists of the measurement of resistance, potential, capacity, and current, the testing of galvanometers, electrolysis, etc. The charge for this course is \$2.00.

*†*Four hours a week for sixteen weeks.

* On leave

N 4. ELECTRICAL TESTING.—A continuation of course 3. Introductory work on the dynamo is begun. Students taking this course work in the shop six hours a week. This arrangement gives them an opportunity to construct for themselves many electrical devices including small dynamos and motors. The charge for this course is \$2.00.

*†*Four hours a week for twenty weeks, or in the civil engineering course for twelve weeks.

N 5. ELECTRICAL MACHINERY.—Lectures on the theory and construction of dynamos, motors, etc.

Two hours a week for sixteen weeks.

N 6. ELECTRICAL ENGINEERING.—The designing, construction, and operating of alternating current machinery, and the use of direct and alternating current machinery in lighting, and the transmission of power.

Two hours a week for twenty weeks.

N 7. ELECTRICAL DESIGN.—This course corresponds to the course in machine design given to the students in mechanical engineering. Each student is required to make the computations and complete drawings for a dynamo.

†Six hours a week for sixteen weeks.

N 8. ELECTRICAL DESIGN.—A study of the problems involved in designing alternating current machinery, in the electrical transmission of power, and in the distribution of electric light.

†Five hours a week for twenty weeks.

N 9. LABORATORY ELECTRICITY.—Tests of electrical instruments; experimental work with dynamos, motors, etc.; tests of efficiency; photometric tests of electric lamps; the practical management of the electric light plant. The charge for this course is \$2.00.

*†*Four hours a week for sixteen weeks.

N 10. LABORATORY ELECTRICITY AND THESIS WORK.—A continuation of course 9. The student devotes a large part of his time to some special investigation selected as the subject for his graduating thesis. The charge for this course is \$2.00.

†Six hours a week for twenty weeks.

N 11. THE HISTORY OF ELECTRICAL ENGINEERING.—Lectures on the development of electrical engineering and its applications to various industries.

One hour a week for twenty weeks.

O-MILITARY SCIENCE AND TACTICS.

CAPTAIN EDGERLY.

O 1. MILITARY DRILL.—(a.) Infantry exercises begin with setting-up exercises and military gymnastics, and continue with manual of arms and bayonet exercise. School of the company, school of the battalion, and extended order movements follow. (b.) Target practice at known distances up to six hundred yards, and skirmish firing over range of six hundred yards. Marksman's buttons are awarded to cadets who qualify. (c.) Military signalling with flag, lantern, heliograph, and field telegraph. (d.) Band practice. (e.) One week is spent in camp. Cadets are instructed in the duties of a sentinal, learn advance guard and outpost duties, and work out practically the problems of minor tactics.

†Three hours a week for the first thirteen and last thirteen weeks of each year.

O 2. MILITARY SCIENCE.—Recitations on U. S. Infantry Drill Regulations, and the Manual of Guard Duty.

Three hours a fortnight for ten weeks of the sophomore and junior years.

O 3. MILITARY SCIENCE.—Lectures and recitations on military science, including organization, administration, discipline and instruction of armies; logistics; security and information; manufacture and use of gunpowder; high explosives; small arms; cannon; projectiles; armor; mines and torpedoes; construction of military bridges, and destruction of bridges, roads, etc.; coast defences; military law and military history; studies on campaigns illustrating the principles of the art of war.

The text-book is Mercur's Elements of the Art of War. Three hours a fortnight for ten weeks.

ESSAYS.—Each member of the senior class is required to submit an essay at the beginning of the spring term on a military subject. preferably allied to his other college work.

REQUIREMENTS.—Each man student is required to take military drill, unless physically unfit, and to attend recitations in military science.

The drill, course 1, occupies the first thirteen weeks of the fall term, and the last thirteen weeks of the spring term, one hour a day, and three days in the week, counting as one hour and a half in reckoning the student's total time. The remaining three weeks in the fall term, and seven weeks in the spring term, are given:—by the senior class, to recitations in military science, course 3, three recitations a fortnight; by the junior and sophomore classes, to recitations in military science, course 2, three hours a fortnight; by the freshman class, to mathematical drawing.

THE COURSES OF STUDY.

The Maine State College is a school of science, and technology, and the courses of study are conveniently arranged in three groups: one group including the general courses; a second including the chemical and other scientific courses; the third including the technical courses. The courses of study leading to degrees, occupy four years. In some lines shorter courses are provided.

The studies of the freshman year are nearly the same for all courses, and are intended to furnish the foundation for the work of the later years. All courses include many studies which are especially useful for general training and culture.

THE GENERAL COURSES.

THE LATIN-SCIENTIFIC COURSE is designed for those who seek the college for general culture and training, and especially for those who expect to become teachers.

THE GENERAL SCIENTIFIC COURSE differs from the Latin-Scientific Course, in substituting modern languages for Latin. Students in either of these courses may devote especial attention to mathematics, physics, or natural history.

THE TECHNICAL SCIENTIFIC COURSES.

The CHEMICAL COURSE is designed for those who wish to become professional analysts, teachers of chemistry, or managers of industries in which an extensive knowledge of chemistry is needed.

The AGRICULTURAL COURSE is designed for those who wish to become farmers, teachers or investigators in agricultural science, or editors of agricultural papers. In this course, agriculture is treated as a branch of technology. For those who wish practical rather than scientific training in agriculture, shorter courses are provided. The PREPARATORY MEDICAL COURSE is designed for those who propose to take up the study of medicine after graduation and wish to so shape their college work as to obtain the best preparation.

The PHARMACY COURSE is designed for those who wish to prepare themselves for the practice of pharmacy, and at the same time obtain a broad general training.

THE TECHNICAL COURSES.

The CIVIL ENGINEERING COURSE is designed for those who wish to become surveyors, railroad, highway, hydraulic, bridge or sanitary engineers.

The MECHANICAL ENGINEERING COURSE is designed for those who wish to become managers of manufacturing plants, or general mechanical engineers.

The ELECTRICAL ENGINEERING COURSE is designed for those who wish to fit themselves for any line of practical work in electricity.

THE SHORT COURSES.

The PHARMACY COURSE, of two years, is designed for those who wish to obtain a practical training in pharmacy in the shortest time.

The ELECTRICAL ENGINEERING COURSE, of two years, is designed for those who wish only a practical training in electrical engineering.

The COURSE IN LIBRARY ECONOMY, of one year, is designed for those who wish instruction in the care and management of libraries.

The AGRICULTURAL COURSES, of one year and of two years, are designed for farmers.

The TRAINING COURSES, of six weeks each, in General Agriculture, in Dairying, and in Horticulture, are planned for farmers.

DEGREES.—The Latin-scientific course leads to the degree of Bachelor of Philosophy. The general scientific, the agricultural, the chemical, the preparatory medical, and the pharmacy courses lead to the degree of Bachelor of Science; the civil engineering course leads to the degree of Bachelor of Civil Engineering; the mechanical and electrical engineering courses lead to the degree of Bachelor of Mechanical Engineering.

Three years after graduation, on presentation of a satisfactory thesis and proof of professional work or further study, bachelors receive the corresponding second degree.

Those who complete in a satisfactory manner the course in Library Economy, the courses of one and two years in Agricul ture, and the course of two years in Pharmacy receive certificates. Three years after graduation, the graduates of the course of two years in Pharmacy, on presentation of a satisfactory thesis and proof of professional work or further study receive the degree of Graduate in Pharmacy. The graduates in the long course may receive this degree one year after graduation on proof of professional work or further study. This will not prevent them from receiving the degree of Master of Pharmacy three years after graduation.

EXPLANATION OF TABLES.

The college year is divided into two terms, the fall term of sixteen weeks and the spring term of twenty weeks.

The quota of studies prescribed for each student is such as to require, for a minimum, seventeen hours, and for a maximum, twenty hours of class-room work each week, exclusive of decladeclamations, and themes. The tables are made so as to require, with the military work of three hours a fortnight, approximately twenty hours work each week. Laboratory work and other exercises not requiring preparation count as half time—that is, two hours in the laboratory are counted as equivalent to one hour. The hours devoted to such studies are marked with a dagger (†) in the tables.

A small letter in parenthesis preceding a study indicates that it is an elective. The student selects one study from the group preceded by the same letter.

The capital letters and numerals following a study refer to the explanatory statements to be found on the pages given. The letters refer to the departments of instruction, the numbers to the courses under them.

The Roman numerals and letters in parenthesis following certain studies indicate that the studies followed by the same Roman numeral fill up a urit of time—a term or a year, as the case may be,—one study beginning when another ends, the studies following in the order indicated by the letters accompanying the numeral.

Each student is required to take the military drill, unless physically unfit, and to attend recitations on military science during the winter months. As these exercises are the same for all courses, they are omitted from the tables, and given only on page 56.

STUDIES OF THE FRESHMAN YEAR, ALL COURSES.

For Declamations and Themes see page 32, for Military Science, see page 56.

Studies.	Weeks.	Hours.
FALL TERM.		
Rhetoric-Course A 1, page 31	16	2.5
(a) French-Course B 1, page 33	16	5.0
(a) German-Course B 5, page 33	16	5.0
General History—Course C 3, page 34	16	1.0
Solid Geometry-Course D 1, page 36 (I a)	8	5.0
Algebra-Course D 2, page 36 (I b)	8	5.0
Drawing-Course F 1, page 39	16	†5.0
Mathematical Drawing ‡-Course F 2, page 39	3	†3.0
Chemistry-Course G 1, page 40	16	2.5
Spring Term.		
Rhetoric-Course A 2, page 31	20	2.5
(a) French-Course B 2, page 33	20	5.0
(a) German-Course B 6, page 33	20	5.0
General History-Course C 3, page 34	20	1.0
Algebra-Course D 2, page 36 (II a)	8	5.0
Trigonometry-Course D 3, page 36 (II b)	12	5.0
(b) Mechanical Drawing-Course F 3, page 39	20	†5.0
Mathematical Drawing ‡-Course F 2, page 39	7	†3.0
Chemistry—Course G 1, page 40	20	2.5
(b) Botany—Course J 6, page 47	20	†5.0

‡ Last three weeks of fall term, and first seven weeks of spring term.

THE LATIN SCIENTIFIC COURSE.

This course is planned for the benefit of those who seek the college for general rather than special training, with a view to fit themselves for business or further study. It is especially recommended to those who expect to become teachers.

The required studies include courses in Latin, English, and modern languages; in mathematical and physical science; in natural science; in literature and civics. By a proper selection of elective studies, the student may give especial attention to language, natural science, mathematics, or physics.

This course will begin in the fall term of 1896. The detailed statement will be published in the next catalogue.

Upon graduation, the student receives the degree of Bachelor of Philosophy; three years later, on proof of satisfactory advancement, and on presentation of a thesis embodying original work or investigation, he receives the degree of Master of Philosopy.

THE SCIENTIFIC COURSE.

This course is planned in the belief that the beginning of a liberal education lies in a careful study and a thorough appreciation of our own language and literature. These, supplemented by courses in French and German, by careful training in Economics, History, and the elements of International, Constitutional, and Municipal Law, and by general scientific knowledge furnish a substantial foundation for a broad and general culture. The electives in mathematics, physics and astronomy are intended for such students as have a decided taste for mathematics and wish to fit themselves for positions as teachers or to take a university course in mathematics or physical sciences.

This course is designed to prepare the student for those professions and callings which demand a broad general knowledge and a wider acquaintance with literature and history than is possible for those students to acquire whose time is chiefly devoted to technical studies. It is believed to be especially adapted to the need of those who expect to engage in the teaching of the natural, social, or political sciences, or to engage in general business, banking, or other large industries in executive or managing positions.

Upon graduation the student receives the degree of Bachelor of Science; three years later, on proof of satisfactory advancement and on presentation of a thesis embodying original work or investigation, he receives the degree of Master of Science.

MAINE STATE COLLEGE.

THE SCIENTIFIC COURSE.

For the Freshman Year see page 60. For Declamations and Themes see page 32, and for Military Science see page 56.

(a) French-Course B 1, page 33. 16 (a) German-Course B 5, page 33. 16 (b) Analytical Geometry-Course D 4, page 36. 16 (c) Danalytical Geometry-Course D 5, page 36. 16 (c) Danalytical Geometry-Course D 4, page 36. 16 (c) Danalytical Geometry-Course D 5, page 38. 16 (c) Danalytical Geometry-Course G 1, page 41. 16 *Organic Chemistry-Course G 4, page 41. 16 ** Analytical Chemistry-Course H 1, page 41. 16 ** Anglo-Saxon-Course B 2, page 33. 20 (a) French-Course B 4, page 31. 20 (a) French-Course B 5, page 33. 20 * Calculus-Course B 6, page 33. 20 * Calculus-Course B 6, page 33. 20 * Calculus-Course B 5, page 39. 10 * Macharios-Course E 5, page 39. 10 * Laboratory Physics-Course E 1, page 43 (1b). 10 * Bacteriology -Course I 13, page 46 (11 a). 10 * Taboratory Botany-Course A 5, page 33. 16	Studies.	Weeks.	Hours.
(a) French-Course B 1, page 33. 16 (a) German-Course B 5, page 33. 16 (b) Analytical Geometry-Course D 4, page 36. 16 (c) Danalytical Geometry-Course D 5, page 36. 16 (c) Danalytical Geometry-Course D 4, page 36. 16 (c) Danalytical Geometry-Course D 5, page 38. 16 (c) Danalytical Geometry-Course G 1, page 41. 16 *Organic Chemistry-Course G 4, page 41. 16 ** Analytical Chemistry-Course H 1, page 41. 16 ** Anglo-Saxon-Course B 2, page 33. 20 (a) French-Course B 4, page 31. 20 (a) French-Course B 5, page 33. 20 * Calculus-Course B 6, page 33. 20 * Calculus-Course B 6, page 33. 20 * Calculus-Course B 5, page 39. 10 * Macharios-Course E 5, page 39. 10 * Laboratory Physics-Course E 1, page 43 (1b). 10 * Bacteriology -Course I 13, page 46 (11 a). 10 * Taboratory Botany-Course A 5, page 33. 16			
(a) German-Course B 5, $page 33$.16(b) Analytical Geometry-Course D 4, $page 36$.16(c) Analytical Geometry-Course D 5, $page 36$.16(c) Analytical Geometry-Course D 5, $page 36$.16(c) Analytical Geometry-Course D 5, $page 38$.16(c) Analytical Geometry-Course B 3, $page 38$.16(c) Analytical Chemistry-Course G 11, $page 41$.16(c) Arman-Course B 5, $page 33$.20(c) Arman-Course B 5, $page 33$.20(c) Arman-Course B 6, $page 33$.20(c) Analytica-Course E 1, $page 38$.20(c) General Physics-Course E 1, $page 38$.20(c) Anotory Physics-Course E 3, $page 38$.10(c) Anotory Physics-Course E 3, $page 38$.10(c) Anotory Physics-Course E 3, $page 33$.10(c) Anotory Physics-Course E 4, $page 43$ (1 b).10(c) Anotory Physics-Course A 4, $page 31$.10(c) Anotory Physics-Course A 4, $page 31$.10(c) Anotory Physics-Course A 5, $page 33$.16(c) Anotory Physics-Course B 7, $page 33$.16(c) Ge	FALL TERM.		
(b) Analytical Geometry-Course D 4, page 36. 16 2 (b) Analytical Geometry-Course D 5, page 36. 16 5 (c) Analytical Geometry-Course D 5, page 36. 16 5 (c) Analytical Geometry-Course D 5, page 38. 16 3 Iaboratory Physics-Course E 3, page 38. 16 3 Iaboratory Physics-Course G 4, page 41. 16 2 *Analytical Chemistry-Course G 11, page 41. 16 5 *Cryptogramic Botany-Course H 1, page 42. 16 2 SPRING TERM. 20 2 2 *Anglo-Saxon-Course A 3, page 31. 20 5 2 *(a) French-Course B 4, page 33. 20 5 2 *(a) German-Course B 6, page 33. 20 5 2 2 *(a) German-Course B 6, page 33. 20 2 2 4 Laboratory Physics-Course E 1, page 38. 20 4 20 2 *(a) German-Course I 1, page 39. 10 14 4 *Mechanics-Course E 1, page 38. 20 4 4 Laboratory Physics-Course E 1, page 38. 10 14 *Machanics-Cou			5.0
(b) Analytical Geometry—Course D 5, page 36	(a) German-Course B 5, page 33		5.0
General Physics—Course E 1, page 38	(b) Analytical Geometry—Course D 4, page 36		2.5
Laboratory Physics—Course É 3, page 38. 16 †4 *Organic Chemistry—Course G 4, page 41. 16 2 *Analytical Chemistry—Course G 11, page 41. 16 5 *Cryptogramic Botany—Course H 1, page 41. 16 5 *Cryptogramic Botany—Course H 1, page 41. 16 5 *Analytical Chemistry—Course H 1, page 42. 16 2 SPRING TERM. * 20 2 (a) French—Course B 2, page 33. 20 5 (a) German—Course B 6, page 33. 20 2 *Calculus—Course D 6, page 37. 20 2 *Advanced Algebra—Course I 1, page 38. 20 2 General Physics—Course E 1, page 38. 20 4 Laboratory Physics—Course H 2, page 43 (1 b). 10 14 *Mechanics—Course E 5, page 39. 10 2 *Laboratory Botany—Course H 12, page 47 (11 b). 10 15 *Histology of Plants—Course A 5, page 32. 16 15 Calculus - Course B 7, page 33. 16 16 Ibrary Work—Course A 4, page 33. 16 2 (a) German—Course B 7, page 33. 16 2			5.0
*Organic Chemistry—Course G 4, page 41	General Physics-Course E 1, page 38		3.0
*Analytical Chemistry—Course G 11, page 41			14.0
*Cryptogramic Botany-Course H 1, page 42	*A polytical Chamistry - Course G 4, page 41		$2.5 \\ 5.0$
Spring TERM. 20 2(a) French-Course A 3, page 31			2.5
*Anglo-Saxon—Course A 3, page 31	·Oryptogramic botany – coarse if i, page 42	10	2.0
(a) French-Course B 2, page 33	SPRING TERM.	20	1
(a) German-Course B 6, page 33	*Anglo-Saxon—Course A 3, page 31		2.5
*Calculus-Course D 6, page 37 20 2 *Advanced Algebra-Course D 10, page 37 20 2 *Advanced Algebra-Course D 10, page 37 20 2 General Physics-Course E 1, page 38 20 4 Laboratory Physics-Course E 3, page 38 20 2 *Mechanics-Course E 5, page 39 10 14 *Mechanics-Course E 13, page 46 (11 a) 10 14 *Bacteriology - Course I 13, page 46 (11 a) 10 14 *Bacteriology Or Plants-Course J 7, page 47 (11 b) 10 15 *Histology of Plants-Course A 4, page 31 10 15 English Literature-Course A 5, page 32 16 16 (a) German-Course B 7, page 33 16 2 (a) German-Course B 7, page 31 16 2 *Modern Analytic Geometry-Course D 11, page 37 16 2 *Modern Analytic Geometry-Course D 13, page 38 16 2 *Theory of Equations-Course B 39 13, page 38 16 2 *Modern Analytic Geometry-Course D 11, page 37 16 2 *Modern Analytic Geometry-Course D 13, page 38 16 2 *Theory of Equations-Course E	(a) French-Course B 2, page 33		5.0
*Advanced Algebra-Course D 10, page 37	(a) German-Course B 6, page 35		$5.0 \\ 2.5$
General Physics-Course E 1, page 38. 20 4 Laboratory Physics-Course E 3, page 38. 10 †4 *Mechanics-Course E 5, page 39. 10 2 *Laboratory Physics-Course E 4, page 33 (1 a). 10 †4 *Mechanics-Course E 5, page 39. 10 2 *Laboratory Botany-Course H 2, page 43 (1 b). 10 †4 *Bacteriology-Course I 3, page 46 (1 a). 10 †5 *Histology of Plants-Course J 7, page 47 (11 b). 10 †5 FALL TERM. 10 †5 English Literature-Course A 4, page 81. 16 †5 (a) German-Course B 3, page 33. 16 2 (a) German-Course B 3, page 33. 16 2 *Calculus-Course D 7, page 31. 16 2 *Modern Analytic Geometry-Course D 11, page 37. 16 2 *Theory of Equations-Course E 13, page 38. 16 2 *Physics-Course E 6, page 39. 16 2 *Mathematical Physics-Course E 8, page 39. 16 2 *Invertebrate Zoology-Course H 5, page 43. 16 2 *Invertebrate Zoology-Course H 5, page 43. 16 2 </td <td>* Advanaged Algebra - Course D 10 nage 27</td> <td></td> <td>2.5</td>	* Advanaged Algebra - Course D 10 nage 27		2.5
Laboratory Physics—Course É 3, page 38 (I a). 10 14 *Mechanics—Course E 5, page 39. 10 2 *Laboratory Botany—Course H 2, page 43 (I b). 10 10 *Laboratory Botany—Course H 2, page 43 (I b). 10 14 *Bacteriology—Course I 13, page 46 (II a). 10 14 *Bacteriology—Course I 3, page 46 (II a). 10 15 *Histology of Plants—Course J 7, page 47 (II b). 10 15 FALL TERM. JUNIOR YEAR. 16 15 English Literature—Course A 5, page 32. 16 5 (a) French—Course B 7, page 33. 16 2 (a) German—Course B 7, page 33. 16 2 *Laborat H istory—Course C 4, page 41 16 2 *Modern Analytic Geometry—Course D 11, page 37. 16 2 *Modern Analytic Geometry—Course D 13, page 38. 16 2 *Physics—Course E 6, page 39. 16 2 *Mathematical Physics—Course H 5, page 43. 16 2 *Invertebrate Zoology—Course H 5, page 43. 16 2 *Laboratory Zoology—Course H 5, page 43. 16 2			4.0
*Mechanics-Course E 5, page 39	Laboratory Physics—Course E 3 page 38 (I a).		14.0
**Bacteriology - Course I 13, page 46 (11 a)	*Mechanics-Course E 5, page 39.		2.0
**Bacteriology - Course I 13, page 46 (11 a)	*Laboratory Botany-Course H 2, page 43 (1 b)	10	†4.0
*Histology of Plants—Course J 7, page 47 (II b)	*Bacteriology-Course I 13, page 46 (11 a)	10	1 15.0
FALL TERM. 16 †5 *Library Work-Course A 4, page 31	*Histology of Plants-Course J 7, page 47 (II b)	10	†5.0
*Library Work-Course A 4, page 31			1
English Literature—Course À 5, page 32		10	+5.0
(a) French-Course B 3, page 33	*Library work—Course A 4, page 51		5.0
(a) German-Course B 7, page 33162English History-Course C 4, page 41162*Calculus-Course D 7, page 37165*Modern Analytic Geometry-Course D 11, page 37162*Theory of Equations-Course D 13, page 38162*Physics-Course E 6, page 39162*Mathematical Physics-Course E 8, page 39162*Invertebrate Zoology-Course H 5, page 43162*Laboratory Zoology-Course H 5, page 43162	(a) French Course B 3 nage 33		2.5
English History-Course C 4, page 41 16 2 *Calculus-Course D 7, page 37 16 5 *Modern Analytic Geometry-Course D 11, page 37 16 2 *Theory of Equations-Course D 13, page 38 16 2 *Physics-Course E 6, page 39 16 2 *Mathematical Physics-Course E 8, page 39 16 2 *Invertebrate Zoology-Course H 5, page 43 16 2 *Laboratory Zoology-Course H 45 page 43 16 15	(a) $(\operatorname{Jerman}-Course B 7, page 33, \dots, \dots)$		2.5
*Calculus-Course D 7, page 37	English History-Course C 4, page 41	16	2.5
*Modern Analytic Geometry—Course D 11, page 37 16 2 *Theory of Equations—Course D 13, page 38 16 2 *Physics—Course E 6, page 39 16 2 *Mathematical Physics—Course E 8, page 39 16 2 *Invertebrate Zoology—Course H 5, page 43 16 2 *Laboratory Zoology—Course H 6, page 43 16 2	*Calculus - Course D 7, page 37	16	5.0
*Physics-Course E 6, page 39 16 2 *Mathematical Physics-Course E 8, page 39 16 2 *Invertebrate Zoology-Course H 5, page 43 16 2 *Laboratory Zoology-Course H 6, page 43	*Modern Analytic Geometry—Course D 11, page 37		2.5
*Mathematical Physics—Course E 8, page 39 16 2 *Invertebrate Zoology—Course H 5, page 43 16 2 *Laboratory Zoology—Course H 6, page 43 16 5	*Theory of Equations-Course D 13, page 38		2.5
*Invertebrate Zoology—Course H 5, page 43 16 2 *Laboratory Zoology—Course H 6, page 43 16 5	*Physics-Course E 6, page 39		2.5
*Laboratory Zoology—Course H 6, page 43 $\dots $ 16 15	*Mathematical Physics-Course E 8, page 39		$2.5 \\ 2.5$
\sim Laboratory 20010gy - <i>Course</i> n 0, page 45 10 [3	*Invertebrate Zoology-Course H 5, page 45		15.0
*Comparative Vertebrate Zoology-Course H 7, page 43 16 3	*Comparative Vertebrate Zoology-Course H 7 nage 13		3.5

* Elective studies, from which the student must select enough to give him approximately twenty hours a week.

MAINE STATE COLLEGE.

Studies.	Weeks.	Hours.
JUNIOR YEAR-Concluded.		
SPRING TERM. *Library Work—Course A 4, page 31	20	t4.0
*General Literature—Course A 8, page 32	20	5.0
(b) French-Course B 4, page 33	20	2.5
(b) German-Course B 8, page 33	$\tilde{20}$	2.5
*Spanish—Course B 9, page 33	$\overline{20}$	2.5
*Italian-Course B 10, page 34	20	2.5
*Italian—Course B 10, page 34 Psychology—Course C 1, page 34 (I a)	10	5.0
Logic-Course C 2, page 34 (I b)	10	5.0
American History-Course C5, page 34	20	2.0
*Descriptive Astronomy-Course D 8, page 39	20	2.5
*Practical Astronomy – Course D 9, page 37	20	2.5
*Advanced Integral Calculus-Course D 12, page 38	20	2.5
*Differential Equations-Course D 14, page 38	20	2.5
*Analytical Chemistry–Course G 11, page 41 *Laboratory Zoology–Course H 8, page 44	$\frac{20}{20}$	$^{\dagger 4.0}_{\dagger 4.0}$
"Laboratory Zoology—Course H 8, page 44	20	14.0
SENIOR YEAR.		
FALL TERM.	10	1 - 0
Constitution—Course C 8, page 35	16	5.0
*Philosophy of History—Course C 10, page 35 *History of Philosophy—Course C 11, page 35	16	2.5
*History of Philosophy-Course U II, page 55	16	$2.5 \\ 2.5$
Modern Analytic Geometry—Course D 11, page 37 *Theory of Equations—Course D 13, page 38	$\frac{16}{16}$	$\frac{2.0}{2.5}$
*Practical Astronomy-Course D 15, page 38	16	2.5
*Photography-Course G 9, page 41	16	12.0
*Mineralogy—Course G 10, page 41	16	13.0
Geology-Course H 10, page 44	16	2.5
Opport (Depart		
SPRING TERM.	20	5.0
Political Economy-Course C 6, page 34 *Municipal Law-Course C 7, page 35	20	1.0
*International Law—Course C 9, page 35	20	4.0
*Anthropology-Course C 12, page 36	20	2.0
*Library Work-Course C 13, page 36	20	t5.0
*Advanced Integral Calculus-Course D 12, page 38	$\overline{20}$	2.5
*Differential Equations—Course D 14, page 38	20	2.5
*Practical Astronomy—Course D 15, page 38	20	5.0
*Advanced Physiology—Course H 3, page 43	20	2.5
*Laboratory Physiology-Course H 4, page 43	20	$^{+2.0}$
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THE SCIENTIFIC COURSE-CONCLUDED.

* Elective studies, from which the student must select enough to give him approximately twenty hours a week.

THE CHEMICAL COURSE.

The course in chemistry is designed for those who wish to become professional chemists and analysts, teachers of chemistry, or chemists and managers of industries in which an extensive knowledge of chemistry is important. Especial attention is given to the preparation of students for the work of the agricultural experiment stations. In addition to a thorough knowledge of chemistry, the student acquires, in his biological studies, knowledge of comparative anatomy, and of the lower forms of life, and in his work in the chemical laboratory, facility in the manipulation of chemical apparatus and the microscope.

The lectures and recitations are closely associated with practical work in the laboratories where the students, under the guidance of the instructors, become acquainted with the methods and apparatus of qualitative analysis and of metallurgy. The student is drilled in the use of chemical apparatus, in accurate observation and careful interpretation of directions.

In order to familiarize the student with chemical publications in other languages than English, French text-books are used for some of the more important studies in the course, and occasional references are made to German works.

Upon graduation the student receives the degree of Bachelor of Science; three years later, on proof of satisfactory advancement and on presentation of a thesis embodying original work or investigation, he receives the degree of Master of Science.

MAINE STATE COLLEGE.

THE CHEMICAL COURSE.

For the Freshman Year see page 60. For Declamations and Themes see page 32, for Military Science see page 56.

Studies.	Weeks.	Hours.
SOPHOMORE YEAR. FALL TERM. (a) French-Course B 1, page 33	16 16 16 16 16 16 16	$5.0 5.0 2.5 3.0 ^{+4.0}2.5^{+8.0}$
SPRING TERM. (a) French—Course B 2, page 33 (a) German—Course B 6, page 33 General Physics—Course E 1, page 38 Laboratory Physics—Course E 3, page 38 (I a) Advanced Inorganic Chemistry—Course G 3, page 41 Analytical Chemistry—Course G 11, page 41 Analytical Chemistry—Course G 11, page 41 (I b)	$20 \\ 20 \\ 20 \\ 10 \\ 20 \\ 20 \\ 20 \\ 10 \\ 1$	$5.0 \\ 5.0 \\ 4.0 \\ +4.0 \\ 2.5 \\ +10.0 \\ +4.0 $
JUNIOR YEAR. FALL TERM. English Literature—Course A 5, page 32. German—Course B 7, page 33. Organic Chemistry—Course G 4, page 41. Chemical Readings—Course G 6, page 41. Analytical Chemistry—Course G 11, page 41. (a) Invertebrate Zoology—Course H 5, page 43. (a) Electricity and Magnetism—Course S 1, page 54	$16 \\ 16 \\ 16 \\ 16 \\ 16 \\ 16 \\ 16 \\ 16 \\$	$5.0 \\ 2.5 \\ 2.5 \\ 1.0 \\ \dagger 10.0 \\ 2.5 \\ 2.0$
SPRING TERM. Psychology-Course C 1, page 34 (Ia) Logic-Course C 2, page 34 (Ib) (a) Advanced Acoustics-Course E 7, page 39. Organic Chemistry-Course G 4, page 41 Analytical Chemistry-Course G 11, page 41 Volumetric Analysis and Assaying-Course G 11, page 41 (a) Entomology-Course H 9, page 44	$10 \\ 10 \\ 20 \\ 20 \\ 20 \\ 20 \\ 20 \\ 20 \\ $	$5.0 \\ 5.0 \\ 2.5 \\ 2.5 \\ 10.0 \\ 7.0 \\ 2.5 $
SENIOR YEAR. FALL TERM. Constitution—Course C 8, page 35 Technical Chemical Processes—I ourse G 7, page 41 Photography—Course G 9, page 41 Mineralogy—Course G 10, page 41 Analytical Chemistry—Course G 11, page 41 Geology—Course H 10, page 44	16 16 16 16 16 16	$5.0 \\ 2.5 \\ +2.0 \\ +3.0 \\ +12.0 \\ 2.5$

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THE CHEMICAL COURSE.-CONCLUDED.

Studies.	Weeks.	Hours.
SENIOR YEAR—Concluded. SPRING TERM. Political Economy—Course C 6, page 34 (a) Advanced Acoustics—Course E 7, page 39 Preparation of Organic Chemicals—Course G 8, page 41 (Ia) Thesis—Course G 12, page 42 (Ib) (a) Bacteriology—Course I 13, page 46 (IIa) (a) Histology of Plants—Course J 7, page 47 (IIb)	$20 \\ 20 \\ 4 \\ 16 \\ 10 \\ 10$	$\begin{array}{c c} 5.0\\ 2.5\\ 11.0\\ \dagger 22.0\\ \dagger 5.0\\ 5.0\end{array}$

THE AGRICULTURAL COURSE.

The course in agriculture is especially designed for those who wish to follow some branch of agriculture as a business or who propose to become teachers or investigators along scientific lines related to agriculture. It is, however, so broadly educational, particularly in the natural sciences and their relations to human needs and activities, that it gives an admirable preliminary training for either business or professional life.

The instruction in this course is arranged with reference to two general results: first to secure for the student that intellectual development which is a condition fundamental to the highest success in any calling, and second, to impart such a knowledge of the farmer's social and physical environment as will tend to give him the largest influence as a man, and the greatest possible control of his business. While, therefore, the distinctive studies of this course are along technical lines, the branches pertaining to general culture, to social, and civil relations, occupy an important place.

The theoretical instruction, especially that of the last two years, is associated with practical work and observations in the field, laboratories, dairy, and forcing houses. Practice is combined with theory whenever it is necessary for the demonstration of a principle or involves skilled labor, but the student's time is not consumed in merely manual operations.

Upon graduation the student receives the degree of Bachelor of Science; three years later, on proof of satisfactory advancement and on presentation of a thesis embodying original work or investigation, he receives the degree of Master of Science.



COBURN HALL.

THE AGRICULTURAL COURSE.

For the Freshman Year see page 60. For Declamations and Themes see page 32, for Military Science see page 56.

Studies.	Weeks.	Hours.
Sophomore Year.		
FALL TERM. (a) French-Course B 1, page 33 (a) German-Course B 5, page 33 General Physics-Course E 1, page 38 Laboratory Physics-Course E 2, page 38 Chemical Theory-Course G 2, page 40 Analytic Chemistry-Course G 1, page 41 Cryptogamic Botany-Course H 1, page 42 Laboratory Botany-Course H 2, page 43	16 1 1	$5.0 \\ 5.0 \\ 3.0 \\ +4.0 \\ 2.5 \\ +6.0 \\ 2.5 \\ +2.0 \\ +2.0 \\ -2.5 \\ +2.0 \\ -2.5 \\ +2.0 \\ -2.5 \\ +2.0 \\ -2.5 \\ +2.0 \\ -2.5 \\ +2.0 \\ -2.5 \\ +2.0 \\ -2.5 \\ +2.0 \\ -2.5 \\ +2.0 \\ -2.5 \\ +2.0 \\ -2.5 \\ +2.0 \\ -2.5 \\ +2.0 $
SPRING TERM. (a) French-Course B 2, page 33 (a) German-Course B 6, page 33 General Physics-Course E 1, page 38 Advanced Inorganic Chemistry-Course G 3, page 41 Analytical Chemistry-Course G 11, page 41 Bacteriology-Course I 13, page 46 (1a) Histology of Plants-Course J 7, page 47 (1b)	$20 \\ 20 \\ 20 \\ 20 \\ 20 \\ 20 \\ 10 \\ 10 \\ $	$5.0 \\ 5.0 \\ 4.0 \\ 2.5 \\ +10.0 \\ +5.$
JUNIOR YEAR. FALL TERM. German—Course B 7, page 33 English History—Course C 4, page 34 Organic Chemistry—Course G 5, page 41 Analytical Chemistry—Course G 11, page 41 Invertebrate Zoology—Course H 5, page 43. Laboratory Zoology—Course H 6, page 43. Biological Chemistry—Course I 1, page 44	16 16 16 16 16 16	$\begin{array}{c} 2.5 \\ 2.5 \\ 2.5 \\ 16.0 \\ 2.5 \\ 15.0 \\ 2.5 \\ 15.0 \\ 2.5 \end{array}$
SPRING TERM. Psychology—Course C 1, page 34 (Ia) Logic—Course C 2, page 34 (Ib) Entomology—Course I 9, page 44 Biological Chemistry—Course I 2, page 45 Agricultural Physics—Course I 4, page 45 (IIa) Agricultural Engineering—Course I 5, page 45 (IIb) Pomology—Course J 1, page 47 (IIIa) Olericulture—Course J 2, page 47 (IIIb) Laboratory Horticulture—Course J 5, page 47	10 20 20 10 10 10 10 20	$\begin{array}{c} 5.0 \\ 5.0 \\ 2.5 \\ 5.0 \\ 2.5 \\ 2.5 \\ 2.5 \\ 2.5 \\ 2.5 \\ 2.5 \\ 14.0 \end{array}$
SENIOR YEAR.		
FALL TERM. Constitution—Course C 8, page 35. Comparative Vertebrate Zoology—Course H 7, page 43. Geology—Course H 10, page 44. Agricultural Chemistry—Course I 3, page 45 (Ib). Stock Feeding—Course I 6, page 45 (Ia) Plant Variation—Course J 3, page 47 (IIa). Landscape Gardening—Course J 4, page 47 (II b) Laboratory Horticulture—Course J 5, page 41	16 16 16 8 8 8 8 8 16	5.0 3.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 15 .0

THE PREPARATORY MEDICAL COURSE.

For the Freshman Year see page 60. For Declamations and Themes see page 32, for Military Science see page 56.

Studies.	Weeks.	Hours.
SOPHOMORE YEAR.		
FALL TERM.		
(a) French-Course B 1, page 33	16	5.0
(a) German-Course B 5, page 33	16	5.0
General Physics-Course E 1, page 38	16	3.0
Laboratory Physics-Course E 3, page 38	16	1 11.0
Chemical Theory-Course G 2, page 40	16	2.5
Analytical Chemistry-Course G 11, page 41	16	16.0
Cryptogamic Botany-Course H 1, page 42	16	2.5
Laboratory Botany-Course H 2, page 43	16	12.0
SPRING TERM.		
(a) French-Course B 2, page 33	20	5.0
(a) German—Course B 6, page 33	20	5.0
General Physics-Course E 1, page 38	20	4.0
Advanced Inorganic Chemistry-Course G 3, page 41	20	2.0
Analytical Chemistry-Course G 11, page 41	20	110.0
Bacteriology-Course I 13, page 46, (I a)	10	†5.0
Histology of Plants-Course J 7, page 47, (I b)	10	15.0
JUNIOR YEAR.		
FALL TERM.	10	
German-Course B 7, page 33	16	2.5
English History—Course C 4, page 34	16 16	2.
Organic Chemistry-Course G 5, page 41	16	t6.0
Analytical Chemistry—Course G 11, page 41 Invertebrate Zoology—Course H 5, page 43	16	2.
Laboratory Zoology-Court H 6, page 44	16	t5.0
Biological Chemistry-Course I 1, page 44	16	2.6
SPRING TERM.		
Psychology-Course C 1, page 34, (I a).	10	5.0
Logic-Course C 2, page 34, (1 b)	ĩŏ	5.0
Analytical Chemistry-Course G 11, page 41	$\tilde{20}$	+12.0
Helminthology-Course H 6, page 43	20	14.0
Biological Chemistry-Course I 2, page 45	20	5.0
SENIOR YEAR.		
FALL TERM.		1
Constitution—Course C 8, page 35	16	5.0
Comparative Vertebrate Zoology-Course H 7, page 43	16	3.5
Geology-Course H 10, page 44	16	2.5
Laboratory Pharmacy-Course K 3, puge 48	16	110.0
Materia Medica-Course K 7, page 49	16	3.0

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THE PREPARATORY MEDICAL COURSE-CONCLUDED.

Studies.	Weeks.	Hours.
SENIOR YEAR—Concluded. SPRING TERM. Political Economy – Course C 6, page34 Advanced Physiology—Course H 3, page 43 Laboratory Physiology—Course H 4, page 43 Human Anatomy—Course I 11, page 44 Veterinary Science—Course I 11, page 46 Veterinary Practice—Course I 12, page 46 Bacteriology—Course I 14, page 46	20 20 20 20 20 20 20 20 20	5.0 2.5 †2.0 2.5 2.5 †2.0 †10.0

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THE PHARMACY COURSE.

This course is offered in response to a demand for a thorough training, both general and technical, for those who are to become pharmacists. It is one of only four pharmacy courses of equal length, offered in the United States. It aims to combine a broad general culture, with thorough preparation along its special lines, with the design of affording the intellectual development necessary for the well rounded professional or business men. To this end, it includes the same instruction in modern languages, civics, and the sciences, as that offered in the other regular college courses.

Instruction in pharmaceutical studies is given by means of lectures, recitations, and tests, supplemented by work in the laboratories of chemistry, and pharmacy, and embraces qualitative, quantitative, and volumetric analysis, toxicology, and bacteriology, prescriptions, and the preparation of pharmaceutical compounds, and original investigations. The student under the guidance of the instructors is led to acquire correct habits of thought and observation, and exact methods of manipulation.

The library contains valuable reference literature in chemistry, and pharmacy, and the best chemical and pharmaceutical journals are on file in the reading room.

Upon graduation the student receives the degree of Bachelor of Science; one year later, on proof of professional work or further study, he may receive the degree of Graduate in Pharmacy, if he desire it; two years later, on proof of satisfactory advancement and on presentation of a thesis embodying original work or investigation, he receives the degree of Master of Science.

THE PHARMACY COURSE.

For the Freshman Year see page 60. For Declamations and Themes see page 32, for Military Science see page 56.

Chemical Theory - Course G 2, page 40	Hours.
FALL TERM. 16 (a) French-Course B 1, page 33 16 (a) German-Course B 1, page 33 16 (a) German-Course B 1, page 33 16 (b) German-Course B 1, page 33 16 (c) German-Course B 1, page 33 16 (c) German-Course G 2, page 40 16 Chemical Theory-Course G 1, page 41 16 Chemical Theory-Course H 1, page 42 16 Laboratory Botany-Course H 2, page 43 16 SPRING TERM. 20 (a) French-Course B 2, page 33 20 (a) German-Course B 4, page 33 20 (a) German-Course B 5, page 33 20 (b) French-Course B 6, page 33 20 (c) German-Course B 6, page 33 20 (a) German-Course B 6, page 33 20 Advanced Inorganic Chemistry-Course G 3, page 41 20 Analytical Chemistry-Course G 11, page 41 10 Histology of Plants-Course G 4, page 41 10 JUNIOR YEAR. 16 FALL TERM. 16 German-Course B 7, page 43 16 Chemistry-Course G 4, page 41 16 Cheorganic Chemistry-Course G 4, page 41	
General Physics—Course E 1, page 38	$5.0 \\ 5.0$
Laboratory Physics-Course E 3, page 38	3.0
Analytical Chemistry-Course G 11, page 41	$^{\dagger 4.0}_{2.5}$
Laboratory Botany-Course H 2, page 43	$^{\dagger 8.0}_{2.5}$
(a) French-Course B 2, page 33	$\frac{1}{2.0}$
(a) German—Course B 6, page 33	5.0
Advanced Inorganic Chemistry-Course G 3, page 41	$5.0 \\ 4.0$
Analytical Chemistry-Course G 11, page 44	2.5
Installing = Course G 1, page 47 (Ib) 10 Histology of Plants - Course J 7, page 47 (Ib) 10 JUNIOR YEAR. 5 SALL TERM. 16 German-Course B 7, page 33	$\frac{10.0}{15.0}$
FALL TERM. 16 German-Course B 7, page 33	† 5. 0
German-Course B 7, page 33	
Chemical Readings—Course G 1, page 41	$2.5 \\ 2.5$
Analytical Chemistry-Course G 11, page 41	1.0
Biological Chemistry - Course I 1, page 44 16 Inorganic Pharmacognosy - Course K 5, page 48 16 SPRING TERM. 10 Psychology - Course C 1, page 34 (IIa) 10 Organic Chemistry - Course 4 4, page 41 10 Organic Chemistry - Course 1 3, page 43 20 Advanced Physiology - Course 1 2, page 45 20 Biological Chemistry - Course 1 2, page 45 20 Organic Pharmacognosy - Course K 6, page 48 20 SENIOR YEAR. 20 ALL TERM. 16 Constitution - Course C 8, page 35 16 Pharmacy - Course K 2, page 48 16	$\frac{10.0}{2.5}$
SPRING TERM. 10 Psychology-Course C 1, page 34 (IIa) 10 Organic Chemistry-Course G 4, page 41 20 Advanced Physiology-Course H 3, page 43. 20 Biological Chemistry-Course H 3, page 43. 20 Organic Pharmacognosy-Course K 6, page 48. 20 SENIOR YEAR. 20 Constitution-Course C 8, page 35. 16 Pharmacy-Course K 8, page 48. 16	2.5
Psychology-Course C 1, page 34 (IIa) 10 Logic-Course C 2, page 34 (II b) 10 Organic Chemistry-Course G 4, page 41 20 Advanced Physiology-Course H 3, page 43 20 Biological Chemistry-Course H 3, page 43 20 Organic Pharmacognosy-Course K 6, page 48 20 SENIOR YEAR. 20 Constitution-Course C 8, page 35 16 Pharmacy-Course K 8, page 48 16	3.(
Logic—Course C 2, page 34 (11 b). 10 Organic Chemistry—Course G 4, page 41 20 Advanced Physiology—Course H 3, page 43. 20 Biological Chemistry—Course I 2, page 45. 20 Organic Pharmacognosy—Course K 6, page 48. 20 SENIOR YEAR. 20 Calt TERM. 6 Constitution—Course C 8, page 35. 16 Pharmacy—Course K 2, page 48. 16 I aboratory Pharmacy—Course K 3, page 48. 16	5.0
Organic Orminary Course H 3, page 43. 20 Advanced Physiology - Course H 3, page 43. 20 Biological Chemistry - Course I 2, page 45. 20 Organic Pharmacognosy - Course K 6, page 48. 20 SENIOR YEAR. 20 ALL TERM. 16 Pharmacy - Course K 2, page 48. 16 I aboratory Pharmacy - Course K 3, page 48. 16	5.0 2.5
Organic Pharmacognosy—Course K 6, page 48 20 SENIOR YEAR. 20 'ALL TERM. 16 Constitution—Course C 8, page 35	2.5
SENIOR YEAR. Constitution-Course C 8, page 35	$5.0 \\ 4.0$
Constitution-Course C 8, page 35	
Pharmacy-Course K 2, page 48 16 Laboratory Pharmacy-Course K 3, page 48 16	5.0
Laboratory rnarmacy-course K 5, page 49 10 Materia Medica-Course K 7, page 49 16	5.0 10.0
	3.0
PRING TERM. Political Economy—Course C.6, page 34 20	5.0
Political Economy-Course C 6, page 34 20 Bacteriology-Course 1 14, page 46 20	10.0
Pointeau Economy - Course C 0, page 34. 20 † Bacteriology - Course I 14, page 46. 20 † Pharmacy - Course K 4, page 48. 20 † Thesis - Course K 8, page 49. 20 †	3.0 10.0

THE CIVIL ENGINEERING COURSE.

The object of this course is to give the student knowledge of mathematics, mechanics, and drawing, experience in the care and use of the ordinary engineering instruments, and a thorough drill in the application of mathematical principles and rules, with a view to fitting him at graduation to apply himself at once to engineering work, and to qualify him, after experience in the field, to fill positions of importance and trust. The course is planned to furnish not only technical instruction, but also the basis of a liberal education. Especial attention is given to English, modern languages, and economics.

The method of instruction includes recitations from text-books, lectures, original problems, work in the testing laboratories, field practice, and work in the designing room where original designs are figured and the necessary drawings prepared. In the last year of the course special effort is made to acquaint the student with the best engineering structures, and the standard works in engineering literature.

The facilities for instruction are excellent. The engineering building contains recitation rooms, designing rooms, testing laboratories, drawing rooms, and instrument rooms, as good as any to be found in the country. These are thoroughly equipped. Beside the instruments ordinarily used by the professional engineer, the department has a fine plane table, a solar compass, a testing machine for iron, a testing machine for cement, and various pieces of apparatus for standard measurements.

Upon graduation the student receives the degree of Bachelor of Civil Engineering; three years later, on proof of satisfactory advancement and on presentation of a thesis embodying original work or investigation, he receives the degree of Civil Engineer.

THE CIVIL ENGINEERING COURSE.

For the Freshman Year see page 60. For Declamations and Themes see page 32, for Military Science see page 56.

Studies.	Weeks.	Hours.
SOPHOMORE YEAR. FALL TERM. (a) French-Course B 3, page 33 (a) German-Course B 7, page 33 English History-Course C 4, page 34 Analytical Geometry-Course D 5, page 36 General Physics-Course E 1, page 38 Laboratory Physics-Course E 3, page 38 Mechanical Drawing-Course F 4, page 39	$16 \\ 16 \\ 16 \\ 16 \\ 16 \\ 16 \\ 16 \\ 16 \\$	2.5 2.5 2.5 5.0 3.0 †4.0 †7.0
SPRING TERM. (a) French-Course B 4, page 33. (a) German-Course B 8, page 33. Calculus-Course D 6, page 37. General Physics-Course E 1, page 38. Laboratory Physic-Course E 3, page 38. Descriptive Geometry-Course E 5, page 40. Surveying-Course L 1, page 49. Field Work in Surveying-Course L 2, page 49, (I a). Field Work in Surveying-Course L 2, page 49, (I b).	$\begin{array}{c} 20\\ 20\\ 20\\ 20\\ 10\\ 20\\ 20\\ 10\\ 10\\ 10 \end{array}$	$\begin{array}{c} 2.5\\ 2.5\\ 2.5\\ 4.0\\ +4.0\\ 4.0\\ 2.5\\ +2.0\\ +6.0\end{array}$
JUNIOR YEAR. FALL TERM. Calculus—Course D 7, page 37 (a) Modern Analytic Geometry—Course D 11, page 37 (a) Theory of Equations—Course D 13, page 38 Railroad Engineering—Course D 3, page 49 (1a Railroad Field and Office Work—Course L 4, page 49 (a) Railroad Field and Office Work—Course L 4, page 49 Highway Engineering—Course L 5, page 50, (I b) Mechanics—Course L 6, page 50	$16 \\ 16 \\ 16 \\ 12 \\ 16 \\ 16 \\ 16 \\ 4 \\ 16 $	$5.0 \\ 2.5 \\ 2.5 \\ 3.5 \\ +5.0 \\ +5.0 \\ +5.0 \\ 3.5 \\ 5.0$
SPRING TERM. (a) Descriptive Astronomy-Course D 9, page 37 Practical Astronomy-Course D 9, page 37 (a) Advanced Integral Calculus-Course D 12, page 38 (a) Differential Equations-Course D 14, page 38 General Drawing-Course F 5, page 40, (1a). (b) General Drawing-Course F 5, page 40, (1a). Stereotomy-Course F 7, page 50, (11 a). Graphic Statics-Course L 7, page 50, (11 a). Sanitary Engineering-Course L 8, page 50, (11 b). Sanitary Engineering-Course L 9, page 50, (11 b). (b) Electrical Testing-Course N 4, page 50, (1 a).	$20 \\ 20 \\ 20 \\ 12 \\ 12 \\ 10 \\ 12 \\ 8 \\ 10 \\ 8 \\ 12$	$\begin{array}{c} 2.5\\ 2.5\\ 2.5\\ 2.5\\ 46.0\\ 71.0\\ 5.0\\ 5.0\\ 3.5\\ 10.0\\ 4.0\end{array}$

Studies.	Weeks.	Hours.
Senior Year.		
FALL TERM.		1
Constitution-Course C 8, page 35	16	5.0
(a) Modern Analytic Geometry-Course D 11, page 37	$\frac{16}{16}$	$\begin{vmatrix} 2.3\\ 2.4 \end{vmatrix}$
 (a) Theory of Equations-Course D 13, page 38 (a) Photography-Course G 8, page 41 	16	$\frac{2.3}{12.0}$
(a) Mineralogy-Course G 9, page 41	16	13.0
Geology-Course H 10, page 44	$\tilde{16}$	2.
Hydraulics-Course L 10, page 55, (I a)	8	5.0
Hydraulics (Field Work)—Course L 10, page 50, (II a) Mechanics of Materials—Course L 11, page 50, (I b)	8	7.0
Mechanics of Materials-Course L 11, page 50, (I b)	9	5.
Designing and Thesis Work-Course L 13, page 51, (II b)	8	†7.0
PRING TERM.		
Psychology-Course C 1, page 34, (I a)	10	5.
Logic-Course C 2, page 34, (I b)	10	5.
(a) Advanced Integral Calculus - Course D 12, page 38	$\frac{20}{20}$	$\frac{2}{2}$
(a) Differential Equations—Course D 14, page 38 Political Economy—Course C 6, page 34	20	5.
Foundations, Masonry Construction and Cements-Course	20	0.
L 12. page 51	20	3.
Designing and Thesis Work-Course L 13, page 51	20	†12.0

THE CIVIL ENGINEERING COURSE-CONCLUDED.

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THE MECHANICAL ENGINEERING COURSE.

This course is designed to give such a training in mathematics, mechanics, the principles of mechanism, in drawing, and manual arts as shall make the student competent to deal successfully with the problems of mechanical engineering. To give breadth, the course includes instruction in the natural sciences, English, modern .anguages, philosophy, and history. The technical courses are planned to furnish a sound basis for a professional career. These include the geometry of machinery, gearing, with problems and practice, transmission of motion and power, bolts, cams, couplings and links, the study and designing of the valve and link motions used in the steam engine, analytical mechanics, strength of materials, expansion of steam, construction of steam engines, the designing of steam boilers, and hydro-mechanics. The methods of instruction include lectures, recitations, practice in the various branches of shop-work, the solution of numerous problems, the testing of theoretical results by comparison with modern machinery, the inspection of important plants, etc.

The department shares Wingate Hall with the departments of civil engineering, and physics. The machine shop is equipped with iron working and wood working machinery of the most approved form.

Upon graduation the student receives the degree of Bachelor of Mechanical Engineering; three years later, on proof of satisfactory advancement and on presentation of a thesis embodying original work or investigation, he receives the degree of Mechanical Engineer.

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THE MECHANICAL ENGINEERING COURSE.

For Freshman Year see page 60. For Declamations and Themes see page 32, for Military Science see page 56.

Studies.	Weeks.	Hours.
SOPHOMORE YEAR.		
FALL TERM. (a) French—Course B 3, page 33	16 16 16 16 16 16 16	$\begin{array}{c c} 2.5 \\ 2.5 \\ 2.5 \\ 5.0 \\ 3.0 \\ \dagger 4.0 \\ \dagger 6.0 \end{array}$
SPRING TERM. (a) French-Course B 4, page 33	$20 \\ 20 \\ 20 \\ 20 \\ 10 \\ 20 \\ 20 \\ 10 \\ 1$	2.5 2.5 2.5 4.0 †4.0 4.0 †8.0 †3.0
JUNIOR YEAR.		
FALL TERM. Calculus-Course D 7, page 37 (a) Modern Analytic Geometry-Course D 11, page 37 (a) Theory of Equations-Course D 13, page 38 Analytic Mechanics-Course M 4, page 53 (a) Kinematics-Course M 5, page 52 Machine Work-Course M 7, page 53 (b) Machine Work-Course M 7, page 53	16 16 16 16 16 16 16 16	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$
SPRING TERM. (a) Advanced Integral Calculus—Course D 12, page 38 (a) Differential Equations—Course D 14, page 38 Machine Design—Course M 1, page 51 Manalytic Mechanics—Course M 4, page 52 Machine Work—Course M 7, page 53 (b) Machine Work—Course M 7, page 53 (c) Machine Work—Course M 7, page 53 (a) Steam Boilers—Course M 10, page 53 (b) Electrical Testing—Course N 4, page 55	$20 \\ 20 \\ 20 \\ 20 \\ 20 \\ 20 \\ 20 \\ 20 \\$	$\begin{array}{c} 2.5\\ 2.5\\ 3.5\\ 5.0\\ \dagger 6.0\\ \dagger 4.0\\ 2.5\\ 2.5\\ \dagger 4.0 \end{array}$

THE MECHANICAL ENGINEERING COURSE-CONCLUDED.

Studies.	Weeks	Hours.
SENIOR YEAR.		
FALL TERM.		
Constitution-Course C 8, page 35	16	5.0
(a) Modern Analytic Geometry-Course D 11, page 37	$\tilde{16}$	2.5
(a) Theory of Equations—Course D 13, page 38	16	2.5
(a) Geology—Course H 10–page 44	16	2.5
Link and Valve Motion - Course M 6, page 52	16	4.0
Steam Engine-Course M 8, page 53	16	2.0
Steam Engine Design-Course M 13, page 54.	$\overline{16}$	†10.0
SPRING TERM.		
Psychology-Course C 1, page 34 (Ia)	10	5.0
(a) Logic—Course C 2, page 34 (I b)	10	5.0
Political Economy—Course C 6, page 34	20	5.0
(a) Advanced Integral Calculus – Course D 12, page 38	$\tilde{2}\check{0}$	2.5
(a) Differential Equations-Course D 14, page 38	20	2.5
Steam Engine-Course M 8, page 53 (11 a)	10	2.0
Hydro-Mechanics—Course M 9, page 53		1.5
Testing-Course M 12, page 54 (II b)	10	2.0
Steam Boiler DesigningCourse M 14, page 54 (III a)	10	+10.0
Thesis WorkCourse M 15, page 54 (III b)	10	10.0

THE ELECTRICAL ENGINEERING COURSE.

The course in Electrical Engineering is designed to give the student the general and special training in electrical engineering, which shall fit him to meet successfully the problems that confront the practical electrical engineer. It is identical with the course in Mechanical Engineering for the first two years. During the last two years the student devotes his time about equally to mechanical and electrical work. He is thus able to get a fair knowledge of steam engineering, boiler management, mechanics and kindred subjects, and at the same time to become familiar with the various branches of electrical engineering. This work consists of lectures, recitations, designing and drafting, laboratory practice, and plant testing. This course is in the charge of the professor of physics.

The lecture-room, drafting-room, and junior laboratory are located in Wingate Hall. The electric lighting plant and dynamo laboratory occupy a new building adjoining the Shop. The electrical equipment includes a 30 K. W., 500 light, direct current, multipolar generator, built by the Eddy Electric Manufacturing Company, a 250 light, tripolar direct current generator, built by the Belknap Motor Company, and several smaller machines, including a Brush dynamo, an Edison type machine, a Belknap motor, and a small alternator. Several new ammeters, voltmeters, and other testing machines have been added during the last year. The equipment will not be completed until next year, but it is already sufficient to give the student a thorough prepartion for the work of designing, constructing, testing and operating the various machines and instruments found in an electric plant.

Upon graduation the student receives the degree of Bachelor of Mechanical Engineering; three years later, on proof of satisfactory advancement and on presentation of a thesis embodying original work or investigation, he receives the degree of Mechanical Engineer or Electrical Engineer, as his professional work may make proper.



THE DYNAMO ROOM.

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THE ELECTRICAL ENGINEERING COURSE."

For the Freshman Year see page 60. For Declamations and Themes see page 32, for Military Science see page 56.

Studies.	Weeks.	Hours.
Sophomore Year.		
FALL TERM. (a) French—Course B 3, page 32	$16 \\ 16 \\ 16 \\ 16 \\ 16 \\ 16 \\ 16 \\ 16 \\$	$\begin{array}{c} 2.5 \\ 2.5 \\ 2.5 \\ 5.0 \\ 3.0 \\ \dagger 4.0 \\ \dagger 6.0 \end{array}$
SPRING TERM. (a) French-Course B 4, page 33 (a) German-Course B 8, page 33 Calculus-Course D 6, page 37 General Physics-Course E 1, page 38 Laboratory Physics-Course E 3, page 38 Descriptive Geometry-Course F 6, page 40 Forge Work-Course M 3, page 53	$20 \\ 20 \\ 20 \\ 20 \\ 10 \\ 20 \\ 20 \\ 20 $	$\begin{array}{c} 2.5 \\ 2.5 \\ 2.5 \\ 4.0 \\ \dagger 4.0 \\ 4.0 \\ \dagger 8.0 \end{array}$
JUNIOR YEAR. FALL TERM. Calculus—Course D 7, page 37 (a) Modern Analytic Geometry—Course D 11, page 37 (a) Theory of Equations—Course D 13, page 38 Analytic Mechanics—Course M 1, page 52 (a) Kinematics—Course M 5, page 52 Machine Work—Course M 7, page 53 Electricity and Magnetism—Course N 1, page 54 Electrical Measurements and Testing—Course N 3, page 54.	$16 \\ 16 \\ 16 \\ 16 \\ 16 \\ 16 \\ 16 \\ 16 \\$	$5.0 \\ 2.5 \\ 2.5 \\ 5.0 \\ +3.0 \\ +6.0 \\ 2.0 \\ +4.0$
SPRING TERM. (a) Advanced Integral Calculus—Course D 12, page 38 (a) Differential Equations—Course D 14, page 38 Machine Design—Course M 1, page 51 Analytic Mechanics—Course M 4, page 52 Machine Work—Course M 1, page 53 (a) Steam Boilers—Course M 11, page 54 Electricity and Magnetism—Course N 2, page 54 Electrical Testing—Course N 4, page 55	$20 \\ 20 \\ 20 \\ 20 \\ 20 \\ 20 \\ 20 \\ 20 \\$	$\begin{array}{c} 2.5 \\ 2.5 \\ +3.5 \\ 5.0 \\ +6.0 \\ 2.0 \\ 3.0 \\ +4.0 \end{array}$
SENIOR YEAR. Constitution—Course C 8, page 35 (a) Modern Analytic Geometry—Course D 11, page 37 (a) Theory of Equations—Course D 13, page 48 (a) Geology—Course H 10, page 44 Link and Valve Motion—Course M 6, page 52 Steam Engine—Course M 8, page 53 Electrical Machinery—Course N 7, page 55 Electrical Design—Course N 7, page 55 Laboratory Electricity—Course N 9, page 55	$ \begin{array}{r} 16 \\ 16 \\ 16 $	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$

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THE ELECTRICAL ENGINEERING COURSE-CONCLUDED.

Studies.	Weeks.	Hours.
SENIOR YEAR-Concluded.	,	
SPRING TERM.	10	50
Psychology— <i>Course</i> C 1, <i>page</i> 34, (I a)	$10 \\ 10$	$5.0 \\ 5.0$
Political Economy-Course C 6, page 34.	20	5.0
(a) Advanced Integral Calculus—Course D 12, page 38	$\overline{20}$	2.5
(a) Differential Equations—Course D 14, page 38	20	2.5
Electrical Engineering-Course N 6, page 55	20	2.0
Electrical Design-Course N 8, page 55	20	†5.0
Laboratory Electricity and Thesis Work-Course N 10,		10 0
page 55 The History of Electrical Engineering—Course N 11, page 55	$\frac{20}{20}$	1.0
The history of Electrical Engineering—Course N 11, page 55	20	1.0

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THE SHORT COURSES IN AGRICULTURE.

The short courses in agriculture are designed for those who wish to become farmers and can devote but limited time to study. They are intended to give the greatest amount of available and directly useful knowledge that can be acquired in the time allowed. To adapt them to the varying conditions of preparation and of time that can be given, two courses are offered, one extending through two college years, the other through one year. The former affords a wider range of study and practice, but the latter in its narrower range offers a plan of systematic study on prominent and important agricultural subjects. The entrance examination for these courses is the same as for the full four years course, with the exception that no geometry is required and no algebra beyond simple equations of the first degree. Applicants must be at least fifteen years of age. No maximum limit of age is fixed.

The annual expenses are the same as those of students in the four years courses, as stated in the article on expenses. No charge is made for tuition or rooms.

These courses, including the work in agriculture, horticulture, animal industry and veterinary science, are in the general charge of the professor of agriculture.

Students who complete these courses in a satisfactory manner, receive certificates.

THE TWO YEARS COURSE IN PHARMACY.

This course is designed for those who, for lack of time or other reasons, are unable to take the four years course. The more general educational studies of the full course are omitted, but it is the aim to offer as broad a range of subjects as can be undertaken without sacrifice of thoroughness, in the technical work.

The course corresponds, in general, to the usual full course of the pharmaceutical colleges, but the work required of the student will occupy his whole time during the school years of nine months, and must exclude any practical work in drug stores, during term time.

Those who intend to fit themselves for pharmaceutical work are urged to consider carefully the superior advantages of the long course. In addition to its commercial advantages, the long course offers still greater attractions in those broadening and developing influences, which are the most important results of the best education. The growing importance of biological, sanitary, and medical science, the pharmacist's relation to them, and his influential position, make it increasingly necessary to his success, that he be not only a well trained man in the technical branches, but an educated man in the broadest sense.

Students who complete this course in a satisfactory manner receive a certificate. Three years later, on presentation of a satisfactory thesis and proof of professional work, or further study, they receive the degree of Graduate in Pharmacy.

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THE SHORT COURSE IN PHARMACY.

For Declamations and Themes see page 32, for Military Science see page 56.

Studies.	Weeks.	Hours.
FIRST YEAR.		
FALL TERM.		
Elementary Physics—Course E 2, page 38	16	3.0
Chemistry – Course G 1, page 40 Analytical Chemistry – Course G 11, page 41	16	2.5
Analytical Chemistry—Course G 11, page 41	16	†10.0
Physical and Official Pharmacy-Course K 1, page 48	16	5.0
Inorganic PharmacognosyCourse K 5, page 48	16	3.0
SPRING TERM.		
Elementary Physics-Course E 2, page 38	20	3.0
Laboratory PhysicsCourse E 4, page 39, (1 a)	10	+6.0
Chemistry-Course G 1, page 40	$\tilde{20}$	2.5
Analytical ChemistryCourse G 11, page 41, (I a)	10	+7.0
Analytical Chemistry—Course G 11, page 41, (I b)	ĨŎ	†13.0
General BotanyCourse J 6, page 47	20	15.0
Organic Pharmacognosy-Coarse K 6, page 48	20	4.0
SECOND YEAR.		
FALL TERM.		
Organic Chemistry-Course G 5, page 41	16	2.5
Laboratory Botany-Course H 2, pr ge 43	16	†2.0
Biological Chemistry-Course I 1, page 44	16	2.5
PharmacyCourse K 2, page 48	16	5.0
Laboratory Pharmacy-Course K 3, page 48	16	10.0
Materia MedicaCourse K 7, page 49	16	3.0
SPRING TERM.		
Analytical ChemistryCourse G 11, page 41, (II a)	10	18.0
Analytical ChemistryCourse G 11, page 41, (II b)	ĩŏ	+12.0
Biological ChemistryCourse I 2, page 45	20	5.0
BacteriologyCourse I 13, page 46, (II a)	īŏ	+5.0
Pharmacopeia and Prescriptions-Course K 4, page 48	20	3.0
Thesis Course K 8, page 49	20	110.0

THE TWO YEARS COURSE IN ELECTRICAL ENGINEERING.

This course is designed for those students who wish to obtain only a practical training in electrical engineering. It omits most of the subjects of a general and theoretical nature which appear in the four years course.

The entrance requirements are the same as those of the long course as stated on page 83. The annual expenses are the same as those for other courses, for which see the article on expenses.

By permission of the faculty changes may be made in the outline, by which the student may devote a certain amount of time to modern languages. English, laboratory work in physics, chemistry and natural history, or to other subjects.

Students who complete this course in a satisfactory manner, receive a certificate indicating the amount and character of the work they have performed.

THE SHORT COURSE IN ELECTRICAL ENGINEERING.

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studies.	Weeks.	Hours.
FIRST YEAR.		
FALL TERM.		
Solid Geometry—Course D 1, page 36 (Ia)	8	5.0
AlgebraCourse D 2, page 36 (1b)	8	5.0
General Physics—Course E 1, page 38	16	3.0
Drawing-Course F 1, page 42.	16	15.0
Mechanical Drawing-Course F 3, page 39 (See Note)	3	3.0
General Chemistry-Course G 1, page 40	16	2.5
Carpentry-Course M 2, page 52.	16	+6.0
Kinematics—Course M 5, page 52	16	13.0
Electricity and MagnetismCourse N 1, page 54.	16	2.0
Laboratory Electricity-Course N 3, page 54	16	14.0
Haberatory Electricity-course it s, page of	10	11.0
SPRING TERM.		
AlgebraCourse D 2, page 36 (Ia)	8	5.0
TrigonometryCourse D 3, page 36 (Ib)	$1\tilde{2}$	5.0
General PhysicsCourse E 1, page 38	20	4.0
Mechanical DrawingCourse F 3, page 39 (See Note)	7	13.0
General ChemistryCourse G 1, page 40	20	2.5
Forge WorkCourse M 3, page 52	20	18.0
Electricity and MagnetismCourse N 2, page 54	20	3.0
Laboratory ElectricityCourse N 4, page 55	20	†4.0
SECOND YEAR.		
FALL TERM.		
Analytical Geometry-Course D 5, page 36	16	5.0
Link and Valve Motion—Course M 6, page 58	16	2.0
Machine Work-Course M 7, page 53	16	16.0
Steam Engine-Course M 8, page 53	16	2.0
Electrical MachinervCourse N 5, page 55	16	2.0
Electrical DesignCourse N 7, page 55	16	†6.0
Electrical Testing-Course N 9, page 55	16	†4.0
SPRING TERM.		
Calculus-Course D 6 nage 37	20	2.5
Machine Design—Course M 1, page 51	20	13.5
Machine Work— <i>Course</i> M 7, <i>page</i> 53	20	†6.0
Hydro-Mechanics-Course M 9, page 53	20	1.5
Steam Boilers-Course M 11, page 54	20	2.0
Electrical Engineering-Course N 6, page 55	20	2.0
Electrical DesignCourse N 8, page 55 Laboratory Electricity and Thesis Work-Course N 10, page 55	$\frac{20}{20}$	15.0 16.0

NOTE.—Mechanical drawing for this course takes the time allotted to mathematical drawing in the other course. It occupies the last three weeks of the fall term, and the first seven weeks of the spring term.

THE COURSE IN LIBRARY ECONOMY.

This course is designed to give training for the profession of the librarian, and to furnish to persons fond of books opportunity to become familiar with them and their history. It is not a part of any of the other courses, but is expected to occupy the time of the student for one year. He may obtain the consent of the faculty to attend other courses of instruction in the college. The course is thoroughly practical, and it is expected that those who complete it will be fitted to take charge of small libraries, or departments in larger libraries.

The entrance requirements for this course are stated in the article on admission.

The general expenses are the same as those of students in the long courses, as stated in the article on expenses. No charge is made for tuition or rooms, but each student pays for materials used. This charge should not exceed \$5.00 per annum.

Students who complete this course in a satisfactory manner receive a certificate.

The following outline of studies may be varied, with the permission of the faculty, to suit individual cases. One hour a day through the year is devoted to recitations in literature. English and American literature are taken up in the fall term and modern European literature in the spring term. Two hours on alternate afternoons are devoted to supplementary reading in the library. The study of classification occupies the other afternoons of the year except for a part of the spring term which is given to bibliography. Three hours each day are devoted to cataloguing and general library economy, including accessioning, shelf-listing, charging of books, assigning of book numbers, etc.

SPECIAL COURSES.

No short courses have been arranged in other departments than those mentioned above, but special students are received in any department upon satisfying the professor in charge that they are fitted to pursue a special course with profit. The studies must usually be selected from those announced in the catalogue. Special courses, essentially the same as a regular course laid down in the catalogue, will not be allowed. If more students desire to take any study than can be accommodated, preference will be given to those in the regular and longer courses.

The expenses will be the same as those of students in the full courses. No charge will be made for tuition or rooms.

WINTER LECTURE COURSES IN AGRI-CULTURE.

Three courses of lectures are offered, designed for farmers or young men expecting to become farmers, who are unable to devote a longer time to study.

These courses begin on the first Tuesday of January of each year and continue six weeks. They are made up of lectures and recitations arranged in three groups. Each group consists of four lectures per day for thirty days. A student can attend the lectures of one group only and should be prepared on coming to the College to make his selection.

The instruction includes lectures and recitations upon agricultural chemistry, animal industry, dairy husbandry, horticulture, veterinary science, agricultural engineering, entomology, and business law, combined with practical work in the barn, dairy building, and forcing houses.

THE GENERAL COURSE.

This course is designed to give a variety of information useful to the general farmer, without giving special attention to one branch of business.

Plant and animal nutrition, 20 lectures. Commercial fertilizers and farm manures, 10 lectures. Breeds, breeding and feeding, 25 lectures. Agricultural engineering, 15 lectures. Injurious insects and fungi, 15 lectures. Veterinary science, 20 lectures. Business law, 15 lectures. Lectures in the morning and practical work in the afternoon.

THE COURSE IN DAIRY FARMING.

This course is designed for those who are to make dairying a specialty, or for those who propose to become expert butter makers or cheese makers. If the course is pursued during two terms, and two seasons' satisfactory work is performed in some butter or cheese factory, the student will be granted a certificate of proficiency. Plant and animal nutrition, 20 lectures. Commercial and farm manures, 10 lectures. Breeds, breeding and feeding, 25 lectures. Milk, butter, and cheese dairying, 20 lectures. Milk testing, 5 lectures. Care of boilers, 5 lectures. Veterinary science, 20 lectures. Business law, 15 lectures.

Lectures in the morning and practical work in the dairy in the afternoon.

THE COURSE IN HORTICULTURE.

This course is designed for those who expect to give special attention to fruit growing, market gardening, or floriculture.

Plant and animal nutrition, 20 lectures. Commercial and farm manures, 10 lectures. Economic botany, 15 lectures. Vegetable gardening and fruit growing, 30 lectures. Farm machinery, 10 lectures. Injurious insects and fungi, 15 lectures. Business law, 15 lectures.

Lectures in the morning and practical work in the forcing houses in the afternoon.

THE SUMMER SCHOOL.

A summer school, especially intended for teachers and students preparing for college, will be maintained for three weeks, beginning July 15, 1896, under the joint control of Hon. W. W. Stet. son, the State Superintendent of Schools, and of the President of the College.

Instruction will be given in chemistry, mathematics, physics, geology, botany, zoology, English, civics, pedagogy and child study, and domestic economy. There will be recitations and lecture courses in each subject, and laboratory courses in each except English, civics, and pedagogy.

In the evenings there will be lectures, concerts, conferences, and social entertainments. Saturdays, will be devoted to field work, excursions, and amusements. Tuition will be free, but each laboratory student will be charged \$5.00 for materials and apparatus. Inquiries may be addressed to the President of the College, at Orono, or to the Superintendent of Schools, at Augusta.

A special circular will be issued in March, 1896, which may be obtained free of charge, by applying to the President of the College.

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THE READING ROOM.

THE LIBRARY AND READING ROOM.

The library on the first floor of Coburn Hall, contains nearly nine thousand bound volumes, and about two thousand pamphlets. The growth of the library is about one thousand volumes annually.

A large and convenient reading room adjoins the main room. About eighty of the most important literary and technical papers, magazines, and reviews, both American and foreign, are kept on file.

The library is open for consultation and circulation of books eight hours daily during the week. Students are allowed direct access to the shelves. Students may have two books each at a time, to be kept two weeks, when they may be renewed, unless some one else has put in an application for them. There is a fine of two cents a day for books kept over time. If additional books are needed for special work they can be had on application to the librarian.

The books are arranged according to the Dewey decimal classification, by which they are divided first into the ten classes: 0. General works; 1. Philosophy; 2. Religion; 3. Sociology; 4. Philology; 5. Science; 6. Useful arts; 7. Fine arts; 8. Literature; 9. History. Each of these classes is divided into ten divisions, which are again divided and sub-divided. In this system the numbering of the books indicates their subjects, and not a fixed place on the shelves. There are two card catalogues; the author and title catalogue, arranged alphabetically, and the subject catalogue in which the cards are arranged in order of subjects.

A reading room located on the first floor of Oak Hall, under the management of the students, is provided with the principal daily and weekly newspapers.

THE MUSEUM.

The museum is located in two stories of the wing of Coburn Hall. In the upper story are exhibited the mineral collection, geological specimens and plant models. The mineral cabinet embraces a general collection of three hundred species of the more common minerals which are arranged for study according to Dana's system. There is a fine collection of economic minerals, embracing the important ores useful in the arts and sciences, donated by the United States National Museum. The geological cabinet embraces a small collection of plant and animal fossils, and a collection of 250 specimens of the more important fragmental, crystalline, and volcanic rocks. The collection of Brendel plant models is assigned a special case.

On the lower floor are displayed the collections of vertebrate and invertebrate animals and a set of animal models. The invertebrates include working collections of sponges, hydroids, corals, echinoderms, vermes, mollusks, crustaceans, and insects, besides interesting native and exotic exhibition specimens of all the above groups. The vertebrates include the nucleus of a collection of State fishes, reptiles, birds, and mammals, besides a set of type exotic mammals. The collection of animal models embraces a human manikin, special models of the human eye, ear, and larynx, and models of an insect, leach, snail, fish, snake, and bird.

THE HERBARIUM.

The herbarium is stored in two commodious cases in the botanical laboratory. The plants are arranged in pigeon holes in genus covers for easy reference and classified in accordance with recent botanical researches.

It consists of the original Maine Collection of about 500 species; the New Collection of Maine Plants of 800 species; the Blake Herbarium of 7,000 species, including phenogams and cryptogams; Ellis and Everhard's North American Fungi, comprising thirty-three centuries; Halsted's Lichens of New England; Underwood's Hepaticæ; Cummings and Seymour's North American Lichens; Cook's Illustrative Fungi; Collins' Algæ of the Maine Coast; a collection of illustrative cryptogams in boxes; Harvey's Weeds and Forage Plants of Maine of 300 species; Halsted's Weeds; a collection of grasses and forage plants of 400 species; a collection of United States woods prepared by the United States Department of Agriculture; a collection of seeds and fruits; numerous slides for the microscope.

THE AGRICULTURAL EXPERIMENT STATION.

The Agricultural Experiment Station of the Maine State College owes its existence to the passage by Congress of an act, popularly known as the Hatch Act, which became a law on March 2, 1887. This act specifically provides that the station shall be a department of the college. As such it has been organized and therefore sustains the same relation to the governing board as the departments of instruction.

Such are the conditions, however, under which this department was created, placing it in peculiar and intimate relations with the agriculture of the State, and so essential is it to satisfy the general government that the lines of work and expenditure of funds are in accordance with the terms of the law, that the station has an administration and equipment which appear to place it somewhat apart from the general body of the institution.

The affairs of the station, excepting the selection of its officers, are considered by a Station Council, which consists of a committee of the trustees of the college, the president of the college, members of the station staff, and representatives from the State Board of Agriculture, the State Pomological Society and the Patrons of Husbandry. This council is advisory in its capacity and refers the results of its deliberations to the trustees for ratification. In this way a decision is reached as to the experiments and investigations to be undertaken, and the distribution of the expenditures other than salaries.

The station receives \$15,000 annually from the general government which is supplemented by a small sum derived from the sale of farm and garden products.

The act of Congress declares that the experiment stations shall be established "in order to aid in acquiring and diffusing among the people of the United States useful and practical information
on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and application of agricultural science." This general purpose is to be accomplished by making it "the object and duty of said experiment stations to conduct original researches or verify experiments" along various lines which are specified somewhat in detail, but which considered broadly relate to plant and animal nutrition, plant and animal diseases and pests, and the technics of the various methods involved in crop production and animal husbandry. The Maine Experiment Station is therefore by legal enactment, as it is believed to be in fact, a department of experiment and investigation. Its true purpose is evidently not to give that sort of instruction for which provision is made in the agricultural departments of the "land grant" colleges, but rather to enlarge the domain of that scientific knowledge which is intimately related to the art of agriculture and to disseminate the facts which it may acquire in such a manner as to most generally and safely secure for them their proper place in agricultural practice.

The publications of the station consist of annual reports and frequent short bulletins. The latter are intended to convey to farmers, in a form adapted to popular comprehension, all the results that in any way relate to farm practice.

The annual reports, on the other hand, are expected to contain a fuller statement of the proceedings of the station, involving to some extent the technical language of science, with a completeness of data that might be bewildering to those not accustomed to a close analysis of language and facts. These reports will include nothing of value to practical agriculture not set forth in the bulletins.

All station bulletins are sent to farmers on request, free of expense. The annual reports are sent only when a statement is made that they are especially desired.

THE FIELD DAY.

One day in each year is known as the field day of the agricultural departments. The usual college exercises are omitted and all departments are thrown open to visitors. Especial effort is made to exhibit the facilities of the agricultural departments in the most thorough manner. Special rates are obtained on the railroad for those who come from a distance. The attendance has ranged from twelve hundred to seventeen hundred persons. The programme includes informal talks by members of the faculty in regard to the collections, demonstrations with some of the more important apparatus, exhibitions of improved agricultural machinery, the operation of the dairy building, an exhibit of agricultural products, tools, and supplies contributed by manufacturers and dealers. Tests of new agricultural machinery are made. The experiments of the experiment station are explained by the investigators.

In the afternoon the cadets give an exhibition drill, and later a meeting is held in the chapel. Addresses are made by representatives of the Board of Trustees, the Faculty of the College, and the various important agricultural organizations, and by other distinguished visitors. Circulars in regard to Field Day may be obtained by addressing the Professor of Agriculture.

THE GOVERNMENT OF THE COLLEGE.

The college is maintained at public expense for the public good. Those who participate in its benefits should therefore be required to fulfill faithfully their obligations as loyal members of the institution, of the community, and of the commonwealth. All students owe to the public for its expenditure in their behalf an equivalent in the form of superior usefulness and prompt performance of duties. As members of the community they are amenable to the law. The college recognizes its relation to the commonwealth as a State institution and a part of the State government, and will not shield students from the consequences of acts in violation of State laws.

THE COLLEGE REGULATIONS.

The College Regulations for the government of the college in regard to the selection of studies, standings and grades, absences from recitations and examinations, rhetorical exercises, entrance conditions, leave of absence, attendance upon church and chapel, penalties, examinations, and athletics are printed in full in the annual report of the President for the year ending December 31, 1894.

By these regulations, the quota of regular studies for each student is made to be such as to require, for a minimum, seventeen hours, and, for a maximum, twenty hours of class room work each week. In the application of this rule, two hours of laboratory work and of other exercises not requiring preparation, count as one. The character of the work of the student is reported by assigning him to one of four grades.

Excuses for absence from individual exercises are not required. Each student is expected to pursue his work in a manly way, absenting himself from college exercises only when he has sufficient reasons for doing so. Of these reasons he is to be the judge, but a student who is absent from ten per cent or more of the exercises in any study, is not admitted to the final examination. A student who fails to pass at any examination, is absent or is excluded from any examination has an opportunity to make up his deficiency at the special examinations which are held at the beginning of each term, but if he fails to pass up in any study before it is again taken up in class, he is required to attend the recitations in this study.

STUDENT EXPENSES.

Many students go through college for an annual expenditure of about \$200, exclusive of the expense of clothing, traveling, and vacations, and very many earn a part of this sum, by vacation work. An estimate of the necessary annual expenses of a student may be made from the following table. It should be noticed that clothes, traveling expenses, vacation expenses, society bills, and personal expenses are not included. These vary greatly, according to individual tastes and habits. The table is made up for students who room in the college dormitory, and board at the college Commons. The necessary expenses of other students will be slightly higher. In all cases, a small additional allowance must be made for personal incidental expenses.

STUDENT EXPENSES FOR ONE YEAR, OF TWO TERMS.

College term charges,
Text-books, 15.00
Laboratory fees, average about, 8.00
Stationery, drawing instruments, etc., average
about, 5.00
Encampment, 5.00
Board, 36 weeks at \$2.75,
Heat and light for one-half room, and general care
of dormitory, about 15.00
Furniture, one-half net expense, average for four
years, 6.25
Laundry, about, 15.00
Total,

The college term charge, for all students, is \$15.00. As the year is divided into two terms, the annual charge is \$30.00. This charge covers the following items:—heat and light for

public buildings, \$7.50; military and physical culture, \$1.00; reading room, \$1.00; care and cleaning of recitation, and other public rooms, \$4.50; incidentals, \$1.00.

The cost of text-books will average almost exactly \$15.00 a year throughout the course. These may be bought from the college librarian at cost, but must be paid for on delivery. The expense can be decreased by buying second hand books and selling them when used.

Students in the laboratories and the shops pay a small charge, intended to cover cost of materials and maintenance. These charges are as follows:—biology, per term, \$1.00; chemistry, per term, about \$3.00; bacteriology, per course, \$3.00; physics, per term, \$1.00; pharmacy, per term, about \$3.50; mineralogy, \$2.00; photography, \$2.00; electrical engineering, per course, \$2.00; shop, per course, \$5.00. Students in elementary botany furnish their own instruments. Laboratory charges in the civil engineering course are very few, but students will have traveling expenses in visiting engineering works which will be nearly equivalent to the laboratory expenses of other courses.

It is usual to spend one week of each year in camp, for military instruction. The expense is borne partly by the college and partly by the student. The expense per student, including board, is about \$5.00.

The largest item of expense is for board. In the Commons, the college boarding house, each student pays his share of the cost. The amount is usually about \$2.75 per week. Board may be obtained in clubs or private families at prices ranging from \$3.00 to \$3.25 per week.

Rooms in the dormitory are free, but students supply their own furniture, and are charged for their heat and light, for the lighting and care of the halls and public rooms of the dormitory, and for damages. This charge may be expected to be about \$15.00 a year, per student, for two in a room. No student will be allowed to room in the dormitory whose conduct is in any way objectionable. Furnished rooms, with light and heat, may be obtained in the village for \$1.50 a week if occupied by one person, or \$2.00 a week if occupied by two persons.

The estimate for furniture is made on the assumption that two students will unite in furnishing a room, and that something will be realized from the sale of furniture upon graduation.

Students are charged for all damages done to college property or to that of other students.

Each student is required to supply himself with a military uniform; but this should not be considered as involving an additional expense, since it will take the place of another suit, and can be purchased at a price considerably below that ordinarily charged for a civilian suit of equal quality. The suit and cost are fully described on page 116.

Each student is required to deposit with the Treasurer, upon entering college, a bond, with two good names as sureties, in the amount of \$150.00 to cover college bills. Blank on which bonds should be made out will be furnished by the college, on application. Those who keep a sufficient deposit with the Treasurer to cover the bills of one term will not be required to furnish a bond. No student will be graduated who is in debt to the college.

The expenses of the first year will usually be higher than those of later years.

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COLLEGE ORGANIZATIONS.

FRATERNITIES.—The following college fraternities are represented in the college: The Q. T. V. Fraternity, The B. Θ . II. Fraternity, The K. Σ . Fraternity, The A. T. Ω . Fraternity, The O. E. H. II. Fraternity.

COLLEGE ASSOCIATIONS.—The following associations for literary and other purposes exist among the students: The Civil Engineering Society, The Young Men's Christian Association, The Athletic Association, The Maine State College Publishing Association, The Maine State College Electrical Society, The Reading Room Association, The College Press Club, The College Band, The College Orchestra, and the Photographic Society.

THE YOUNG MEN'S CHRISTIAN ASSOCIATION.—The Young Men's Christian Association, composed of students, has for its object the promotion of Christian fellowship among its members and aggressive Christian work. Among its members are leaders in the athletic, social, and intellectual life of the college. This united effort of the Christian young men to elevate the moral, social and spiritual life of the students has the hearty support of the faculty.

THE ALUMNI ASSOCIATIONS.—The following associations of the alumni have been organized: THE WEST MAINE ASSOCIATION—S. W. Bates, Portland, *President*; E. H. Elwell, Portland, *Secretary*; THE NORTH MAINE ASSOCIATION—N. H. Martin, Fort Fairfield, *Secretary*; THE BOSTON ASSOCIA-TION—L. C. Southard, 27 School Street, Boston, Mass., *President*. THE NEW YORK ASSOCIATION—A. J. Caldwell, 86 Liberty Street, New York, *President*; L. W. Riggs, 414 East 26th Street, New York, *Secretary*; THE WASHINGTON (D. C.) ASSOCIATION—F. Lamson-Scribner, U. S. Department of Agriculture, *President*; THE PACIFIC ASSOCIATION—A. W. Saunders, Pullman, Washington, *President*; Hugo Clark, Seattle, Washington, *Secretary*.

THE GENERAL ALUMNI ASSOCIATION.

CHARLES S. BICKFORD, PRESIDENT, Belfast. D. WILDER COLBY, RECORDING SECRETARY, Orono. FRANK DAMON, CORRESPONDING SECRETARY, Orono. E. M. BLANDING, TREASURER, Bangor. L. H. MERRILL, NECROLOGIST, Orono.

CLASS SECRETARIES.

E. J. HASKELL, Class of 1872, Westbrook.
J. M. OAK,Bangor.
J. I. GURNEY, Class of 1874, Dorchester, Mass.
E. F. HITCHINGS, Class of 1875, Bucksport.
E. M. BLANDING, Class of 1876, Bangor.
S. W. GOULD, Class of 1877, Skowhegan.
JOHN LOCKE, JR., Class of 1878, Portland.
F. E. KIDDER, Class of 1879, 1362 California St.
[Denver, Col.
A. H. BROWN, Class of 1880, Oldtown.
H. M. PLAISTED, Class of 1881, 724 Commercial Building,
[St. Louis, Mo.
W. R. HOWARD, Class of 1882, Belfast.
L. W. TAYLOR, Class of 1883, Calais.
G. H. ALLEN, Class of 1884, Portland.
J. N. HART, Class of 1885, Orono.
R. K. JONES, Class of 1886, Hotel Oxford, Boston, Mass.
D. W. COLBY, Class of 1887, Orono.
T. G. LORD, Class of 1888, Skowhegan.
NELLIE W. REED, Class of 1889, Stillwater.
N. C. GROVER, Class of 1890, Orono.
H. G. MENGES, Class of 1891, Everett, Mass.
G. F. ATHERTON, Class of 1892, Cape Elizabeth.
G. F. ROWE, Class of 1893, Bangor.
J. M. KIMBALL, Class of 1894, Bangor
FRANK DAMON, Class of 1895, Orono.

THE COLLEGE PUBLICATIONS.

THE ANNUAL CATALOGUE OF THE MAINE STATE COLLEGE.— This contains statements of the courses of study, lists of the trustees, faculty, and students, and other information relating to the college.

THE SHORT CATALOGUE OF THE MAINE STATE COLLEGE.— This is an abbreviated form of the catalogue, issued annually, for wide distribution.

THE ANNUAL REPORT OF THE TRUSTEES, PRESIDENT, AND TREASURER TO THE GOVERNOR AND COUNCIL OF THE STATE OF MAINE.—The reports of the Trustees and President include an account of the general affairs and interests of the college for the year, reports from the heads of the various departments of instruction, and the report from the director of the experiment station covering in detail its expenses, operations, investigations, and results.

THE COLLEGE BULLETINS.—These are occasional publications containing reports of the investigations or researches made by the college officers, or other information relating to the college of public interest.

THE COLLEGE CIRCULARS.—These are small occasional pamphlets, issued for special purposes.

THE EXPERIMENT STATION BULLETINS.—These are popular accounts of the results of station work which relate directly to farm practice. At least four and usually twelve are issued each year.

THE CADET.—This is an illustrated monthly magazine published during the college year by an association of the students. It is devoted to the interests of the college, its students, and alumni.

THE PRISM.—This is an annual published by the Junior Class. It contains information in regard to the college and its various organizations, and is elaborately illustrated.

THE COMMENCEMENT.

THE PROGRAMME.

The Commencement exercises of 1895 were as follows:-Saturday, June 15: Junior Exhibition.

Sunday, June 16: Baccalaureate Sermon, by the Rev. Martyn Summerbell, D. D., of Lewiston.

Monday, June 17: College Convocation, including reports of departments, and student enterprises, and the awarding of prizes; Class Day Exercises; Commencement Oration by E. C. Reynolds, Esq., of Portland.

Tuesday, June 18: Meeting of the Trustees; the Exhibition Drill; Receptions by the Q. T. V., Beta Theta Pi, and Alpha Tau Omega Fraternities; Reception by the President.

Wednesday, June 19: Commencement; Commencement Dinner; Meeting of the Alumni Association; Commencement Concert.

CERTIFICATES AND DEGREES.

Certificates were presented to the following persons upon completing the Course in Library Economy, in a satisfactory manner:

Geneva Ring Hamilton, Orono.

Virginia May Ring, Orono.

Lena Matilda Sheridan, Orono.

The first degree was conferred on the following persons:

Gustavus Gilbert Atwood, B. C. E., South Carver, Mass.

Harold Sherburne Boardman, B. M. E., Bangor.

Alfred Howard Buck, B. M. E. (in Electricity), Foxcroft.

Isaac Glidden Calderwood, B. C. E., Vinalhaven.

Wendell Wyse Chase, B. C. E., Auburn.

Frank Damon, B. S., Hampden.

Merton Eugene Ellis, B. M. E., North Guilford.

Le Roy Rowell Folsom, B. S., Corinna.

Charles Albert Frost, B. C. E., Monmouth.

Oscar Llewellyn Grover, B. M. E. (in Electricity), Redlands, Calif.

Geradus Andreis de Haseth, B. C. E., Curacao.

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Ora Willis Knight, B. S. (in Chemistry), Bangor. James William Martin, B. C. E., Boston, Mass. Earl Clinton Merrill, B. C. E., East Eddington. Albion Moulton, B. M. E., Hiram. Walter Marshall Murphy, B. C. E., South Norridgewock. Clifford James Pattee, B. C. E., Belfast. Halbert Gardirer Robinson, B. C. E., Patten. Melville Frederick Rollins, B. C. E., Bangor. Charles Dura Thomas, B. C. E., Brownville.

The second degree was conferred upon the following persons, upon presentation of satisfactory theses, and proof of professional and scientific work, extending over a period of not less than three years:

Fred Langdon Eastman, M. E., Lynn, Mass. Joseph Colburn Graves, M. E., New York, N. Y. George Patrick Maguire, C. E., Malden, Mass. Fred Charles Moulton, M. S., Orono, Me. Stanley Milton Timberlake, C. E., Boston, Mass. Daniel Carr Woodward, M. E., Lynn, Mass.

SCHOLARSHIPS AND PRIZES.

SCHOLARSHIPS.

The trustees have decreed that any person who shall pay to the treasurer a sum not less than seven hundred and fifty dollars for the endowment of a scholarship may have the privilege of assigning to it such name as he may prefer.

THE KIDDER SCHOLARSHIP.— The Kidder Scholarship was endowed by Frank E. Kidder, Ph. D., of Denver, Colorado, a graduate of the college in the class of 1879, to be awarded to a member of the Junior class to be selected by the President and the Faculty.

PRIZES.

THE PRENTISS PRIZE, the gift of Mrs. Henry E. Prentiss of Bangor, will be awarded to that member of the Junior class who shall present the best oration at the Junior exhibition. In the award of this prize both the composition and the delivery of the oration will be considered.

THE PRENTISS DECLAMATION PRIZE, the gift of Mrs. Henry E. Prentiss of Bangor, for excellence in elocution, will be awarded to the best speaker in the Sophomore class.

THE LIBBEY PRIZE, the gift of the Hon. Samuel Libbey of Orono, will be awarded to the student who shall present the best essay upon an agricultural topic. The essays must be handed to the Professor of Agriculture on or before the first Monday in June.

THE CUMBERLAND COUNTY PRIZE, the gift of Mr. E. T. Burrowes of Portland, will be awarded to that member of the Freshman class who shall write the best extemporaneous essay upon an assigned subject. In the award of this prize rhetorical accuracy will be the chief thing considered.

THE KENNEBEC COUNTY PRIZE, the gift of the Hon. William T. Haines of Waterville, will be awarded to that member of the Senior class who shall write the best essay on Applied Electricity. THE FRANKLIN DANFORTH PRIZE, the gift of Eugene F. Danforth of Skowhegan, a graduate of the college in the class of 1877, in memory of his father, Franklin Danforth, will be awarded to that member of the Senior class in the agricultural course who shall attain the highest standing.

THE PENOBSCOT COUNTY PRIZE, the gift of the Hon. Henry Lord of Bangor, will be awarded to that member of the senior class, who shall excel in public debate.

THE AROOSTOOK COUNTY PRIZE, the gift of the Hon. Charles P. Allen of Presque Isle, will be awarded to that member of the Freshman class who shall excel in algebra.

The prizes were awarded last year as follows :

The Prentiss Prize to Frederick Andrew Hobbs, of Alfred.

The Prentiss Declamation Prize, to William Lawrence Holyoke, of Brewer.

The Libbey Prize, to Lore Alford Rogers, of Patten.

The Cumberland County Prize, to George Arthur Whittemore, of Framingham, Mass.

The Aroostook County Prize, to Albion Dana Topliffe Libby, of North Scarboro.



THE COLLEGE OFFICE.

COLLEGE HONORS.

SPEAKERS AT COMMENCEMENT, JUNE 1895.

Gustavus Gilbert Atwood, South Carver, Mass.; Harold Sherburne Boardman, Bangor; Wendell Wyse Chase, Auburn; Frank Damon, Hampden; Merton Eugene Ellis, North Guilford; Le Roy Rowell Folsom, Corinna; Charles Albert Frost, Monmouth; Oscar Llewellyn Grover, Redlands, California; Earl Clinton Merrill, East Eddington; Melville Frederick Rollins, Bangor.

SPEAKERS AT THE JUNIOR EXHIBITION, JUNE 1895.

Frederick Andrew Hobbs, Alfred; Frank Leonard Marston, Bangor; Herbert Lester Niles, Levant; Warren Robbins Page, Hampden; Perley Burnham Palmer, South Bridgton; John Alvah Starr, Orland; Gilbert Tolman, Milo; Perley Walker, Embden; Charles Partridge Weston, Madison.

SPEAKERS AT THE SOPHOMORO PRIZE DECLAMA-TION CONTEST, DECEMBER 1894.

Tyler Hanson Bird, Belfast; William Thomas Brastow, Rockport; Arthur John Dalot, Dalotville; Charles Henry Farnham, Beverly, Mass.; Stanley Jacob Heath, Bangor; William Lawrence Holyoke, Brewer; Joseph White Humphrey Porter, Stillwater; Allen Rogers, Hampden; Edwin Carlton Upton, Bath; Harvey Aaron White, Brewer.

THE KITTREDGE LOAN FUND.

This fund, amounting to nearly one thousand dollars, was established by Nehemiah Kittredge of Bangor. It is in the control of the President and Treasurer of the College, by whom it is loaned to needy students. In the deed of gift, it was prescribed that no security should be required further than personal notes bearing interest at the prevailing rate. Loans are made on the conditions that the interest shall be paid promptly, and that the principal shall be returned from the first earnings after graduation.

THE COBURN LOAN FUND.

This fund, amounting to about one hundred dollars, was established by Abner Coburn of Skowhegan, to be used in aiding needy students in the purchase of the military uniform.

PUBLIC WORSHIP.

Religious services of a simple character are held in the college chapel every day except Sunday and Saturday. All students are required to be present. Every student is required to attend one service on Sunday in one of the churches of the village. Voluntary religious services under the direction of the Young Men's Christian Association are held weekly.

LOCATION.

The college has a pleasant and healthful location in Penobscot county and the town of Orono, half way between the villages of Orono and Stillwater, three miles from the city of Oldtown, and nine miles from the city of Bangor. The Stillwater river, a tributary of the Penobscot, flows in front of the buildings, forming the western boundary of the college campus. The village of Orono is upon the Maine Central Railroad which gives easy access to all parts of the State.

The Bangor, Orono, and Oldtown Electric Railroad, runs through the college grounds. Visitors will find it convenient to take the electric cars at Bangor, Veazie, or Oldtown, as the electric road does not run to the Maine Central Railroad station at Orono. Baggage should be sent to Orono.

MILITARY INSTRUCTION.

Military instruction is required by United States law. The department is under the charge of a graduate of the United States Military Academy, an officer of the regular army of the United States, detailed by the President of the United States for this purpose. The course has especial reference to the duties of officers of the line. Cadet rifles, ammunition, and accouterments are furnished by the War Department. The students are organized into an infantry battalion of four companies, band, and signal corps, officered by cadets selected for their character, soldierly bearing, and military efficiency. The battalion is instructed and disciplined in accordance with rules prescribed by the President of the United States.

The trustees have prescribed a uniform consisting of dark blue blouse, with State of Maine buttons, and gold braid on cuffs; trousers of light blue; blue cap with gold wreath ornament; white duck trousers for hot weather; overcoat of dark blue beaver cloth, of ulster length, with broad collar and detachable cape. Students are not required to buy the overcoat unless an overcoat is needed. It is suitable for general use, and costs Students are required to wear their uniforms during \$15.00. military exercises, and are allowed to do so at other times. The uniform can be obtained of Robinson & Co., of Bangor, at very low prices, fixed by competitive bids. Students are at liberty to purchase of other persons, subject to the approval of the military instructor, who is required to see that the quality and fit are equal to those of the Robinson uniforms. The prices for the year ending November 30, 1895, were as follows : blouse \$7.00; cloth trousers \$5.00; three pairs of duck trousers \$3.00; cap \$1.50; three pairs of gloves 60c; three belts 30c; total, \$17.40.

The three cadets of the Senior class who attain the highest standing in the military department are reported to the Adjutant General of the U.S. Army, immediately after commencement, and their names are printed in the U.S. Army Register. Cadets who have satisfactorily completed the course in military science receive, at graduation, a certificate of military proficiency and are reported to the Adjutant General of Maine.

The following students were awarded special military certificates at the Commencement of 1895, and were reported to the Adjutant General of Maine :—Harold Sherburne Boardman, Earl Clinton Merrill, Melville Frederick Rollins, Ora Willis Knight, Albion Moulton, Le Roy Rowell Folsom, Halbert Gardiner Robinson, Frank Damon, Walter Marshall Murphy, Wendell Wyze Chase, İsaac Glidden Calderwood, Charles Albert Frost, Merton Eugene Ellis, Gustavus Gilbert Atwood, Clifford James Pattee, Charles Dura Thomas, Oscar Llewellyn Grover, James William Martin, Alfred Howard Buck, Gerardus Andries deHaseth.

The first three were reported to the Adjutant General of the United States Army.

The following students distinguished themselves as marksmen during the year ending June, 1895 :—Ralph Barton Manter, Frank Edward Gorham, Gardiner Benson Wilkins, Stanley Jacob Heath, Harrison Pratt Merrill, Howard Eveleth Stevens, Walter Lincoln Ellis, Bernard Alston Gibbs, Harvey Aaron White, Stephen Sans Bunker, Melville Frederick Rollins, Oscar Llewellyn Grover.

The first sharpshooters badge awarded at the Maine State College, was won by John Washington Dearborn.

THE ORGANIZATION OF THE BATTALION.

OFFICERS AND NON-COMMISSIONED OFFICERS.

Captain WINFIELD SCOTT EDGERLY, 7th U. S. Cavalry, Commanding.

FIELD AND STAFF.

Major—FRANK LEONARD MARSTON. First Lieutenant and Adjutant—PAUL DUDLEY SARGENT. First Lieutenant and Quartermaster—CHARLES PARTRIDGE WESTON. First Lieutenant and Chief Signal Officer—JOHN ALVAH STARR.

NON-COMMISSIONED STAFF.

Sergeant Major—WILLIAM THOMAS BRASTOW. Quartermaster Sergeant—JUSTIN ROBERT CLARY.

COMPANY A.

Captain PERLEY WALKER.
First Lieutenant HARRY CLIFFORD FARRELL.
Second Lieutenant HERBERT LESTER NILES.
First Sergeant CHARLES SYDNEY BRYER.
Sergeant WILLIAM LAWRENCE HOLYOKE.
SergeantFRANK EDWARD GORHAM.
Sergeant CHARLES SIMMING BARTLETT.
CorporalHERBERT IVORY LIBBY.
CorporalEdwin Ernest Nowlan.
CorporalJOHN WASHINGTON DEARBORN.
Corporal ALFRED ANDREWS STARBIRD.
CorporalRAY PARKER STEVENS.

COMPANY B.

Captain HERMAN STEPHEN MARTIN.
First Lieutenant FREDERICK ANDREW HOBBS.
Second LieutenantWARREN ROBBINS PAGE.
First SergeantSTEPHEN SANS BUNKER.
SergeantJOSEPH WHITE HUMPHREY PORTER.
SergeantBYRON FRANK PORTER.
Sergeant Edwin Carlton Upton.
CorporalSAMUEL CLARK DILLINGHAM.
CorporalBERNARD ALSTON Gibbs.
CorporalEdwin Albert Sturgis.
Corporal DANA TRUE MERRILL.
CorporalCHARLES STAPLES WEBSTER.

COMPANY C.

Captain BEECHER DAVIS WHITCOMB.
First LieutenantGARDINER BENSON WILKINS.
Second LieutenantJOSEPH WILLIAM RANDLETTE.
First SergeantHARVEY AARON WHITE.
SergeantALLEN ROGERS.
Sergeant Tyler Hanson Bird.
SergeantJOHN PARKS CHASE.
Corporal WALTER LINCOLN ELLIS.
Corporal RALPH HAMLIN.
Corporal ALBION DANA TOPLIFF LIBBY.
CorporalRoderic Desmond Tarr.
CorporalWILSON DARLING BARRON.

COMPANY D.

CaptainPerley Burnham Palmer.
First Lieutenant EDWARD EVERETT GIBBS.
Second LieutenantGILBERT TOLMAN.
First SergeantSTANLEY JACOB HEATH.
SergeantGEORGE GREENWOOD LEAVETTE.
SergeantGEORGE PLUMMER ALBEE.
SergeantWilliam Chandler Robinson.
Corporal LEON EDWIN RYTHER.
Corporal
Corporal CHARLES PARKER CROWELL.
Corporal ALBERT LAWRENCE WHIPPLE.
CorporalHALLER DAVID SEAVEY.

COLOR GUARD.

Color Sergeant......HOWARD EVELETH STEVENS.

BAND.

First Sergeant	STANWOOD HILL COSMEY.
Sergeant	· Perley Francis Goodridge.
Corporal	GEORGE ARTHUR WHITTEMORE.
Corporal	HARRISON PRATT MERRILL.
Corporal	ELMER DREW MERRILL.

SIGNAL SECTION.

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Second Lieutenant...LORE ALFORD ROGERS. Sergeant......MYRON ROSWELL RUSSELL.



VIEW FROM THE LOWER CAMPUS.

CATALOGUE OF STUDENTS.

POST GRADUATES.

Harvey, James Elmore, B.C.E.,	Read field,	Orono House.
Jack, Walter Dows, B. S.,	Topsham,	The Commons.
Kimball, James Mayberry, B. C. E.	, Medway,	Orono House.
Knight, Ora Willis, B. S.,	Bangor,	Bangor.

SENIORS.

Farrell, Harry Clifford, Fernald, Roy Lynde, Gibbs, Edward Everett, Glidden, Everett Grav, Hobbs, Frederic Andrew, Jeffrey, George Wesley, Kidder, Elmer Elwood, Libby, Frank Joshua, Manter, Ralph Barton. Marston, Frank Leonard, Martin, Herman Stephen, Niles, Herbert Lester, Page, Warren Robbins, Palmer, Perley Burnham, Pride, Frank Perley, Randlette, Joseph William, Rogers, Lore Alford, Sargent, Paul Dudley, Simpson, Erastus Poland, Starr, John Alvah, Steward, Stanley John, Tolman, Gilbert, Walker, Perley, Weston, Charles Partridge, Weymouth, Frank Elwin, Whitcomb, Beecher Davis, Wilkins, Gardner Benson,

Machias. A. T. Ω. House. Winterport, B. O. II. House. Bridgton, B. Θ . Π . House Augusta. 7 Q. T. V. House. Alfred. 201 Oak Hall. North Monmouth, 109 Oak Hall. Waterville, A. T. Ω . House. Λ. T. Ω. House. Richmond. Milo, Kappa Sigma House. 3 Q. T. V. House. Bangor, 204 Oak Hall. Foxcroft. Levant, 102 Oak Hall. Newburgh Village, 102 Oak Hall. South Bridgton, B.O. II. House. Westbrook, Kappa Sigma House. Richmond, Kappa Sigma House. Kappa Sigma House. Patten, 5 Q. T. V. House. Machias. Brunswick, B. θ. Π. House. Orland, Q. T. V. House. A. T. Ω . House. Foxcroft, Kappa Sigma House. Milo, North Anson, Q. T. V. House. B. θ. Π. House. Madison. Medford Center, A. T. Ω. House. Kappa Sigma House. Easton, Brownville, Kappa Sigma House.

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JUNIORS.

Albee, George Plummer,	Richmond, Mr. J. P. Spearin.
Atwood, Edward Moselv,	Hampden, Kappa Sigma House.
Bird, Tyler Hanson,	Belfast, A. T. Ω. House.
Brastow, William Thomas,	Rockport, 3 Q. T. V. House.
Brown, William Bourne,	Livermore Falls, Mr. J. P.
, , , , , , , , , , , , , , , , , , ,	∫ Spearin.
Bryer, Charles Sidney,	Boothbay, Q. T. V. House.
Buffum, Charles Nathaniel,	Dillsboro, N. C., 3 В. Ө. П. House.
Bunker, Stephen Sans,	Bar Harbor, Q. T. V. House.
Chase, John Parks,	North Edgecomb, B. O. II. House.
Clary, Justin Robert,	Hallowell, Q. T. V. House.
Cosmey, Stanwood Hill,	Bangor, B O. II. House.
Duncan, Lindsay,	Northfield, Mass., A. T. Ω. House.
Farnham, Charles Henry,	Beverley, Mass., The Commons.
Goodridge, Perley Francis,	Orono, Home.
Gorham, Frank Edward,	Round Pond, 205 Oak Hall.
Gould, Vernon Kimball,	Milo, 111 Oak Hall.
Haley, George,	East Brownfield, Mr. T. Simmons.
Heath, Stanley Jacob,	Bangor, Kappa Sigma House.
Holyoke, William Lawrence,	Brewer, 201 Oak Hall.
Leavette, George Greenwood,	South Berwick, A. T. Q. House.
McLeod, Daniel James,	Brewer, Home.
Macloon, Ernest Henry,	Deering Center, B. O. II. House.
Merrill, Edward Arthur,	Foxcroft, 204 Oak Hall.
Patten, Andrew Jarvis,	Cherryfield, A. T. Ω. House.
Porter, Byron Frank,	Stillwater, Home.
Porter, Joseph White Humphrey	, Stillwater, Home.
Robinson, William Chandler,	Rockland, 5 Q. T. V. House.
Rogers, Allen,	Hampden Corner, Prof. A. E.
	[Rogers.
Russell, Myron Roswell,	Vernon, Vt., Mr. J. P. Spearin.
Stevens, Howard Eveleth,	Bluehill, 202 Oak Hall.
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Vinall, Rena Pearl,	Orono,	Home.

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Hamlin, Emily, Mod. Lang.	Orono,	Home.
Hopkins, Charles Kendall, Mech. Eng.	., Orono,	Home.
Hoskins, Moses Frank, Mech. Eng.,	Foxcroft,	111 Oak Hall.
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South Waterfo	ord, Mr. J. P.
	[Spearin.
Old town,	Home.
Farmington F	alls, Mr. J. P.
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West brook,	Mr. J. P. Spearin.
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Brown, Gertrude,	.Stillwater.
Burton, Millie Cook,	
Teacher in Veazie High School.	
Clement, May Tucker,	.Stillwater.
Cowan, Alice Kate,	
Teacher in Orono Schools.	
Cowan, Mary Abagail,	Orono.
Crane, Elizabeth Dunning,	
Teacher in Oldtown Grammar School.	
Crowell, Charlotte Edith,	Orono.
Curtis, Lilla Eliza,	Brewer.
Teacher in Brewer Schools.	
Davis, Clara L.,	····Veazie.
Folsom, Ethel Laura,	Stillwater.
Gilroy, Florence Josephine,	Stillwater.
Teacher in Stillwater Schools.	
Gustie, Nellie Louise,	.Stillwater.
Harris, Elizabeth Shaw,	Orono.
Teacher in Orono Schools.	
Haynes, Evangeline Mabel,	Oldtown.
Assistant in Oldtown High School.	
Mathews, Annie Amelia,	. Stillwater.
Teacher in Stillwater Schools.	

Mathews, Ella May, Springfield.
Teacher in Springfield Normal School.
Merrill, Florence Annie,Stillwater.
Teacher in Oldtown Schools.
Mosher, Francis Belle,Orono.
Teacher in Orono Schools.
Perry, Eva Virginia,Orono.
Ruggles, Annie Eliza, West Levant.
Teacher in West Levant Schools.
Terry, David, Assonet, Mass.
Varney, Ethel Susan,Oldtown.
Teacher in Oldtown Grammar School.

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