1875

Catalogue of the Maine State College of Agriculture and the Mechanic Arts, Orono, Maine, 1875-6

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CATALOGUE

OF THE

MAINE STATE COLLEGE

OF

AGRICULTURE AND THE MECHANIC ARTS,

ORONO, MAINE,

1875-6.
TRUSTEES.

Hon. ABNER COBURN, Skowhegan,
President.

Hon. LYNDON OAK, Garland,
Secretary.

Hon. WILLIAM P. WINGATE, Bangor,
Hon. SYLVANUS T. HINCKS, Bucksport,
Hon. JAMES C. MADIGAN, Houlton,
Hon. CALEB A. CHAPLIN, Harrison,
Rev. SAMUEL F. DIKE, Bath,

Hon. SAMUEL L. BOARDMAN, Augusta,
Secretary Maine Board of Agriculture, and ex-officio
Member of Board of Trustees.

Hon. ISAIAH STETSON, Bangor,
Treasurer.

EXECUTIVE COMMITTEE:
Hon. WILLIAM P. WINGATE,
Hon. LYNDON OAK,
Hon. SYLVANUS T. HINCKS.

EXAMINING COMMITTEE:
Hon. NELSON DINGLEY, Jr.,
Hon. SIDNEY PERHAM,
Rev. SAMUEL F. DIKE,
Hon. A. M. ROBINSON.
MAINE STATE COLLEGE.

FACULTY.

Rev. Charles F. Allen, D. D.,
President and Professor of English Literature; Mental and Moral Science.

Merritt C. Fernald, A. M.,
Professor of Mathematics and Physics.

Alfred B. Aubert, B. S.,
Professor of Chemistry.

William A. Pike, C. E.,
Professor of Engineering.

Charles H. Fernald, A. M.,
Professor of Natural History.

Winfield S. Chaplin,
Prof. of Modern Languages and Mechanics, and Military Instructor.

George H. Hamlin, C. E.,
Assistant Professor of Engineering.

Joseph R. Farrington,
Farm Superintendent and Instructor in Agriculture.

G. M. Fillebrown,
Steward.

Prof. W. A. Pike,
Secretary.

Prof. G. H. Hamlin,
Librarian.

MAINE STATE COLLEGE.

STUDENTS.

SENIOR CLASS.

NAME.

Abbott, Edmund
Allen, Charles Plummer
Beckler, Eldridge Harlow
Bisbee, Fred Milton
Blanding, Edward Mitchell
Brainard, Charles Marcellus
Buker, George Haskell
Cowan, Florence Helen
Crosby, Oliver
Cyr, Vetal
Dike, James Edward
Dike, Willis Oliver
Estabrooke, Horace Melvyn
Farrington, Arthur Manly
Foss, George Obed
Haines, William Thomas
Hamilton, Henry Fairfield
Haskell, Newall Prince
Hubbard, Philip Wadsworth
Jones, Samuel Messer
Lewis, Albert Augustus
Long, Herbert Augustine
Lothrop, Luther Romsdell
Martin, Nelson Hussey
Moody, George Jameson
Oak, Charles Edson

RESIDENCE.

Winterport.
Presque Isle.
Livermore Center.
Livermore Center.
Saco.
Skowhegan.
Castine.
Orono.
Dexter.

Fort Kent.
Sebago.
Sebago.
Linneus.

Osage.

Hiram.
Madison.
Orono.
Machias.
Leeds.
Linneus.
S. Windsor.
Garland.
NAME.

Parks, George Daniel
Peirce, Hayward
Reed, Frank Radford
Reynolds, Henry Jones
Rogers, Charles Wilson
Stevens, William Lewis
Williams, John Howard

RESIDENCE.

Richmond.
Frankfort.
Roxbury.
Dennysville.
Richmond.
West Waterville.

JUNIOR CLASS.

Blackinton, Alvah De Orville
Burns, Robert Bruce
Danforth, Edward Franklin
Elkins, Augustus Jerome
Emery, Alicia Town
Gould, Samuel Wadsworth
Harvey, Austin Irving
Lunt, Joseph Coney
Mallett, Fred Bartlett
Phillips, Fred Foster
Shaw, Samuel
Stone, Frank Pierce
Stevens, Thomas Jefferson
Towne, Charles Elmer
Townsend, Henry Clay
Webb, Clara Ella
Weeks, James Walter
Weeks, Nellie Estelle
Wiggin, Fred Sumner

FRESHMAN CLASS.

Allison, Daniel
Bean, Henry Percy
Blake, Edward Josiah
Brown, Arthur Prentiss
Colburn, Fred Alden
Cousens, James William
Curtis, John Andrew
Cutter, John Dana
Decker, Wilbur Fisk
Decrow, David Augustus
Emerson, Fred A.
Ferguson, Willis Edwin
Gibbs, Charles Wingate
Goodale, Loomis Farrington
Gould, Annie May

RESIDENCE.

S. Levant.
Fox Island.
Orono.
Fryeburg.
Dover.
Fryeburg.
Orono.
Oldtown.
Dexter.
Oldtown.
Lincoln.
Oldtown.
Lyman.
Fryeburg.
Fryeburg.
Orono.
Augusta.
Jefferson.

SOPHOMORE CLASS.

Brown, Emma
Caldwell, Andrew James
Chamberlain, Cecil Calvert
Crocker, Appleton

Orono.
Orono.
Foxcroft.
West Enfield.

MAINE STATE COLLEGE.
NAME.
Hawes, Edwin Augustus
Holt, Nellie Maud
Johnson, Edward Clinton
Jones, Oliver S.
Kidder, Frank Eugene
Knapp, John N.
Loring, Charles Sewall
Merrill, Albert Young
Moore, Arthur Lee
Morse, Charles Adelbert
Morton, Asa Croxford
Peales, Henry Wilson
Potter, Fred David
Titus, William Nelson
Warren, George Otis
Webster, Herbert
Webster, Howard Elmer
Wellington, Arthur Lee
Wilson, Chester Miller
Vinal, Percia Ann

RESIDENCE.
Riverside.
Orono.
Gorham.
Corinna.
Bangor.
Bradley.
Phipsburg.
Orono.
Limerick.
Bangor.
Bangor.
Charleston.
Waldoboro.
Aina.
Fryeburg.
Orono.
Orono.
Orono.
Fort Fairfield.
Orono.
Orono.

SPECIAL COURSE.
Dakin, Eugene Herbert
Dustin, George A.
How, Edward Stevens
Plummer, David Smyth
Lunt, James

RESIDENCE.
Bangor.
Dexter.
Portland.
Winterport.
Bangor.

SUMMARY.
Seniors, 33
Juniors, 20
Sophomores, 22
Freshmen, 35
Special Course, 5
Total, 115

OFFICERS OF THE COLLEGE MILITARY COMPANIES.

COMPANY A.
Captain, W. L. Stevens.
1st Lieut., J. E. Dike.
2d Lieut., G. H. Buker.
3d Lieut., C. W. Rogers.
1st Sergeant, S. W. Gould.
2d Sergeant, J. C. Lunt.
3d Sergeant, C. E. Towne.
4th Sergeant, F. P. Stone.
Corporals, C. C. Chamberlain,
A. J. Caldwell,
S. M. Miller,
H. H. Hartwell.

COMPANY B.
Captain, N. P. Haskell.
1st Lieut., H. Peirce.
2d Lieut., G. D. Parks.
3d Lieut., C. E. Oak.
1st Sergeant, A. D. Blackinton.
2d Sergeant, F. B. Mallett.
3d Sergeant, S. Shaw.
4th Sergeant, R. B. Burns.
Corporals, F. O. Hamlin,
J. C. Patterson,
J. O. Richardson,
E. Warriner.

PRIZES.

SOPHOMORES.
For excellence in Declamation, to E. F. Danforth.

JUNIORS.
For best Essay, to H. M. Estabrooke.
DESIGN OF THE INSTITUTION.

It is the design of the **Maine State College of Agriculture and the Mechanic Arts** to give the young men of the State who may desire it, at a moderate cost, the advantages of a thorough, liberal and practical education. It proposes to do this, by means of the most approved methods of instruction, by giving to every young man who pursues the course of study, an opportunity practically to apply the lesson he learns in the class-room, and by furnishing him facilities for defraying a part of his expenses by his own labor.

By the act of Congress donating public lands for the endowment and maintenance of such Colleges, it is provided that the leading object of such an Institution 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.”

While the course of study fully meets this requisition, and is especially adapted to prepare the student for agricultural and mechanical pursuits, it is designed that it shall be also sufficiently comprehensive, and of such a character as to secure to the student the discipline of mind and practical experience necessary for entering upon other callings or professions.

CONDITIONS OF ADMISSION.

Candidates for admission to the Freshman Class, must be not less than fifteen years of age, and must pass a satisfactory examination in Arithmetic, Geography, English Grammar, History of the United States, Algebra as far as Quadratic Equations, and five books in Geometry.

Although the knowledge of Latin is not required as a condition of admission, yet the study of that language is earnestly recommended to all who intend to enter this institution.

Candidates for advanced standing must sustain a satisfactory examination in the preparatory branches, and in all the studies previously pursued by the class they propose to enter.

Satisfactory testimonials of good moral character and industrious habits, will be rigidly exacted.
COURSE OF INSTRUCTION.

Five full Courses are provided, viz: A Course in Agriculture, a Course in Civil Engineering, a Course in Mechanical Engineering, a Course in Chemistry, and an Elective Course. The studies of the several Courses are essentially common for the first two years.

Branches marked thus, (c) are Elective, and from them students may select, with the advice of the Faculty, to make up the required number (three) of daily exercises.

There will be regular exercises during the four years in English Composition, Declamation, and Military Tactics. Lectures will be given to the Freshmen Class, on Physics, Meteorology, Physical Geography, and Botany. To the Sophomore Class on Chemistry, Horticulture, and Practical Agriculture. To the Junior Class, on Anatomy, Physiology, Astronomy, and English Literature. To the Senior Class, on Rural Law, Mineralogy, Geology, Stock Breeding, Cultivation of Grasses and Cereals.

ELECTIVE COURSE.

Students in the Elective Course will pursue the required studies common to all the other courses, and may select from other courses and the elective studies, to make up their full course.

SPECIAL COURSE.

Students may be received for less time than the full course, and may select from the studies of the first, second, or third term of any year, such branches of study as they choose, provided they are qualified to pursue them successfully.

Students in the Special Course will not be entitled to a Degree, but certificates of proficiency may be given them.

DEGREES CONFERRED.

The full course in Civil Engineering entitles to the Degree of Civil Engineer; the full course in Mechanical Engineering, to the Degree of Mechanical Engineer; the full course in Agriculture, in Chemistry, or the full Elective Course, to the Degree of Bachelor of Science.
### COURSE IN CIVIL ENGINEERING.

<table>
<thead>
<tr>
<th>FIRST TERM</th>
<th>SECOND TERM</th>
<th>THIRD TERM</th>
</tr>
</thead>
</table>

*Zoology is only elective to the Engineering Classes.*

### COURSE IN MECHANICAL ENGINEERING.


### COURSE IN CHEMISTRY.


### FOURTH YEAR.

### COURSE IN AGRICULTURE.

<table>
<thead>
<tr>
<th>FIRST TERM</th>
<th>SECOND TERM</th>
<th>THIRD TERM</th>
</tr>
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</table>

### COURSE IN CIVIL ENGINEERING.

### SPECIAL FEATURES OF THE COURSE.

The prominence given to the Natural Sciences, and the practical element associated with nearly all departments of study, cannot fail to render the course especially valuable.

Nearly a year is devoted to Botany and Horticulture, commencing early in the spring, and continuing till late in autumn. This course embraces a thorough drill in Botanical Analysis; the study of plants as to their relative importance and geographical distribution; the study of those having commercial or medical value; of those which are cultivated for ornament, and also those which are detrimental, as weeds and poisonous plants. The students learn practically the operations and processes in the department of Horticulture.

A year and a half is devoted to Chemical Physics and Chemistry, commencing with the third term of the first year. The course in Chemistry proper will include General, Analytical, and Agricultural Chemistry. Under Analytical Chemistry will be taken up General Analysis, Use of Blow-pipe, Analysis of Minerals, Alloys, Fertilizers and Farm Products.

All the students, while studying, devote two hours a day to analysis, under the direction of the Professor of Chemistry, thus
acquiring facility in conducting experiments, and securing a practical knowledge of the methods employed in chemical investigations. Those in the course of Chemistry devote three hours a day to laboratory work.

Under Agricultural Chemistry will be considered Composition of Soils, Relations of Air and Moisture to Vegetable Growth, Food of Plants, Chemical Changes during Vegetable Growth, Chemistry of Farm Processes, Methods of Improving Soils, and various other topics which may properly be treated of under this department.

Other departments of science are studied and taught, so far as may be, with special reference to their practical bearing, or their relations to Agriculture and Useful Arts.

LABOR.

It is a peculiarity of the College, that it makes provision for labor, thus combining practice with theory, manual labor with scientific culture. Students in this institution are required to labor a certain portion of each day, not exceeding three hours, for five days in the week.

The labor is designed to be as much as possible educational, so that every student may become familiar with all the forms of labor upon the farm and in the gardens. In the lower classes the students are required to work on the farm, and thus receive compensation for their labor according to their industry, faithfulness and efficiency, the educational character of the labor being also taken into account. The maximum amount paid will be thirty cents for three hours labor.

MILITARY.

Thorough instruction is given in Military Science by a competent officer. The instruction extends through the whole College Course, and embraces personal, squad, company and battalion drill. The students are enrolled in companies under their own officers. Arms are furnished by the State.

LOCATION.

The college has a pleasant and healthful location, between the village of Orono and Upper Stillwater, and about a mile from each. Stillwater River, a tributary of the Penobscot, flows in front of the buildings forming the western boundary of the College farm, and adding much to the beauty of the surrounding scenery.

The European and North American Railway, over which trains pass several times each day, has a station at the village of Orono. The College is within nine miles of the city of Bangor, and is consequently easily accessible from all parts of the State.

FARM AND BUILDINGS.

The College farm contains three hundred and seventy acres of land of high natural productiveness, and of great diversity of soil; and is therefore, well adapted to the experimental purposes of the institution.

White Hall, the building first erected, affords excellent accommodations for a limited number of students. The lower rooms of this building are appropriated to general and class purposes.

Brick Hall contains forty-eight rooms. The Boarding House connected with the College buildings, is open to students. With these buildings, the institution furnishes desirable accommodations for one hundred and twenty-five students.

The Chemical Laboratory contains two apparatus rooms, a lecture room, a cabinet, a library and weighing room, a recitation room, and rooms for analytical and other purposes, and is in all respects admirably adapted to the wants of the Chemical and Mineralogical departments.

APPARATUS.

The College is furnished with new and valuable apparatus for the departments of Physical Geography, Natural Philosophy and Chemistry, and for Surveying and Civil Engineering, to which additions will be made as the exigencies of the several departments require. Models have been obtained from the United States Patent Office, and others have been purchased, that serve for purposes of instruction.
The Library already contains 2,200 volumes, some of which have been obtained by purchase, while others have been kindly given to the College. The volumes secured through the liberality of Gov. Coburn, and the gifts of other friends, are a valuable addition to this department. It is earnestly hoped that so important an auxiliary in the education of students in the College will not be disregarded by the people of the State, but that liberal contributions will be made to the Library, not only of Agricultural and Scientific works, but also works of interest to the general reader.

The Reading Room is supplied with a number of valuable newspapers and periodicals. Grateful acknowledgement is here-with made for the following named papers generously sent by the proprietors to the College:

- American Sentinel;
- Bangor Weekly Courier;
- Christian Mirror;
- Christian Register;
- Dexter Gazette;
- Dirigo Rural;
- Eastern Argus;
- Kennebec Journal;
- Maine Farmer;
- Maine Statesman;
- New England Farmer;
- New York Observer;
- Northern Border;
- North Star;
- Official Gazette, U. S. Patent Office;
- Patten Tribune;
- Oxford Register;
- Piscataquis Observer;
- Somerset Reporter;
- Sunrise;
- York County Independent.

The following are furnished by subscription:

- American Agriculturalist;
- American Chemist;
- American Naturalist;
- Appleton's Journal;
- Bangor Daily Whig and Courier;
- Atlantic Monthly;
- Bangor Daily Commercial;
- Boston Journal of Chemistry;
- Boston Daily Globe;
- Boston Statesman;
- Evening Post;
- Engineering Magazine;
- Entomologist;
- Galaxy;
- Gardener's Chronicle;
- Harper's Monthly;
- International Review;
- Journal Royal Ag. Society, England;
- Journal Franklin Institute;
- London Times;
- Popular Science Monthly;
- Scribner's Monthly Technologist;
- Toledo Blade.

Rooms have been fitted up with cases of Minerals, and specimens of Natural History, and several hundred specimens have been presented to the College. The valuable private Cabinet of Prof. C. H. Fernald is placed in these rooms, and is accessible to the students. All specimens presented will be properly credited and placed on exhibition. Rocks illustrating the different Geological formations, and minerals found within the State are particularly solicited. Additions have been made during the past year.

Flourishing societies have been organized by the students of the College, which hold weekly meetings for declamations, discussions and other literary exercises.

All students are required to attend daily prayers at the College, and public worship on the Sabbath at some one of the neighboring churches, unless excused by the President.

Tuition is free to students from all parts of the State. Those from other States will be charged twelve dollars per term. Rooms are free; all bedding and furniture must be supplied by the students, who will also furnish their own lights. Board, washing and fuel will be furnished at cost. The price of board has been, hitherto, three dollars per week, the fuel and washing fifty cents per week. These bills, with those for incidental expenses, are payable at or before the close of each term.

The terms are so arranged that the long vacation occurs in the winter, that students may have an opportunity to teach during that time. By means of the amount thus earned, together with the allowance for labor, the industrious and economical student can cancel the greater part of his college expenses.
## GRADUATES.

### CLASS OF 1872.

- Benjamin F. Gould, C. E., San Juan, California.
- George E. Hammond, C. E., Eliot.
- Heddle Hilliard, C. E., Grand Southern R. R., N. B.
- Edwin J. Haskell, B. S., Saccarappa, Haskell Silk Company.
- George O. Weston, B. S., Norridgewock.

### CLASS OF 1873.

- George H. Hamlin, C. E., Orono, Maine State College.
- Fred W. Holt, C. E., Phoenixville Bridge Company.
- John M. Oak, B. S., Garland.
- Frank Lamson Scribner, B. S., Bangor.
- Harvey B. Thayer, B. S., Garland.

### CLASS OF 1874.

- William A. Allen, C. E., Portland, M. C. R. R.
- Walter Balentine, B. S., Wesleyan University.
- William H. Gerrish, B. S., Portland.
- David R. Hunter, B. S., Clinton.
- Louise H. Ramsdell, B. S., Atkinson.

### CLASS OF 1875.

- Wilbur A. Bumps, C. E., Dexter High School.
- Samuel H. Clapp, C. E., B. & P. R. R.
- Lewis F. Coburn, C. E., Brunswick.
- Charles F. Durham, C. E., Monroe.
- Edson F. Hitchings, C. E., B. & P. R. R.
GENERAL STATEMENT.

Students are required to make their own beds, and sweep their own rooms.

Each student is required, at the commencement of his College course, to deposit with the Treasurer of the College a bond for $100, signed by responsible sureties, to secure the payment of his board bill and any incidental charges.

Strict conformity to College regulations and requirements is the only condition of continued membership in the College.

Candidates for the next class should make early application.

CALENDAR.

1875—Aug. 26—Thursday, First Term commenced.
   " Nov. 18 and 19—Thursday and Friday, Examination.
   " Nov. 19—Term closes.
   
   Vacation of ten weeks.

1876—Feb. 1—Tuesday, Second Term commences.
   " April 20 and 21—Thursday and Friday, Examinations.
   " April 21—Term closes.
   
   Vacation of one week.

   " May 2—Tuesday, Third Term commences.
   " July 29—Prize Declamation by Sophomores.
   " July 30—Baccalaureate Address.
   " July 31—Prize Essays by Juniors.
   " Aug. 1—Examinations.
   " Aug. 2—Commencement.
   " Aug. 3—Examination of Candidates for Admission.
   
   Vacation of three weeks.

   " Aug. 23—Examination of Candidates for Admission.
   " Aug. 24—Thursday, First Term Commences.
   " Nov. 16 and 17—Thursday and Friday, Examination.
   " Nov. 17—Term closes.
   
   Vacation of ten weeks.