

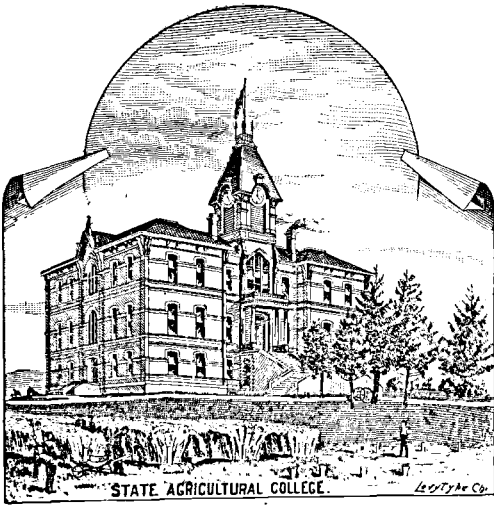
CATALOGUE AND CALENDAR

—OF THE—

State Agricultural College

—FOR—

1890--1891.



ANNUAL CATALOGUE

OF

The State Agricultural College

OF THE

STATE OF OREGON

FOR



AND ANNOUNCEMENTS FOR 1890--1891.



CORVALLIS, OREGON.



SALEM, OREGON:
FRANK C. BAKER, STATE PRINTER.
1890.



TERMS AND VACATION.

FALL TERM.

Friday, September 12th, at 9 A. M., examination for admission.

College year begins at 2 P. M.

Thursday and Friday, December 18th and 19th, examination at the close of Fall Term.

December 31st to January 5th, Winter vacation.

WINTER TERM.

Monday, January 5th, at 9 A. M., examination for admission.

Winter Term begins at 2 P. M.

Thursday and Friday, March 26th and 27th, examination at the close of Winter Term.

SPRING TERM.

Thursday, April 2d, Spring Term begins.

Wednesday, June 17th, to Saturday, June 20th, examination at close of year.

Sunday, June 21st, to Wednesday, June 24th, exercises of Commencement Week.

Wednesday, June 24th, Commencement Day.

June 25th to September 12th, Summer vacation.

BOARD OF REGENTS.

WM. S. LADD, *President,*
 PORTLAND, OREGON.

HON. WALLIS NASH, *Secretary,*
 CORVALLIS, OREGON.

HON. THOS. E. CAUTHORN, *Treasurer,*
 CORVALLIS, OREGON.

HIS EXCELLENCY GOV. SYLVESTER PENNOYER,
 SALEM, OREGON.

HON. GEORGE W. McBRIDE, *Secretary of State,*
 SALEM, OREGON.

HON. E. B. McELROY, *State Supt. Public Instruction,*
 SALEM, OREGON.

HON. H. E. HAYES, *Master of State Grange,*
 OSWEGO, OREGON.

HON. J. T. APPERSON,
 OREGON CITY, OREGON.

HON. J. W. GRIMM,
 AUROEA, OREGON.

HON. JOHN EMMETT,
 UMQUA FERRY, OREGON.

HON. W. P. KEADY,
 PORTLAND, OREGON.

HON. J. K. WEATHERFORD,
 ALBANY, OREGON.

A. R. SHIPLEY,
 OSWEGO, OREGON.

EXECUTIVE COMMITTEE.

HON. THOS. E. CAUTHORN, *Chairman,*
 CORVALLIS, OREGON.

HON. WALLIS NASH, *Secretary,*
 CORVALLIS, OREGON.

HON. J. T. APPERSON,
 OREGON CITY, OREGON.

HON. H. E. HAYES,
 OSWEGO, OREGON.

HON. J. K. WEATHERFORD,
 ALBANY, OREGON.

FACULTY.

B. L. ARNOLD, A. M.,
President and Professor of English.

JOHN D. LETCHER, C. E.,
*Professor of Mathematics and Engineering, and of Military
Science and Tactics.*

F. BERCHTOLD, A. M.,
Professor of Grammar, History, Drawing and Music.

MARGARET SNELL, M. D.,
Professor of Household Economy and Hygiene.

GRANT A. COVELL, M. S.,
Professor of Mechanics and Mechanical Engineering.

F. L. WASHBURN, A. B., (HARVARD.)
Professor of Zoology and Entomology.

H. T. FRENCH, M. S.,
Professor of Agriculture.

E. R. LAKE, M. S.,
Professor of Botany.

P. HERBERT IRISH, Ph. D.,
Professor of Chemistry.

GEORGE COOTE,
Instructor in Horticulture.

W. W. BRISTOW, A. B.,
Principal of Preparatory Department and Prof. Book-keeping.

The Oregon Agricultural Experiment Station.

DEPARTMENT OF STATE AGRICULTURAL COLLEGE.

STAFF.

B. L. ARNOLD, A. M.,
Director.

H. T. FRENCH, M. S.,
Agriculturist.

E. R. LAKE, M. S.,
Botanist.

P. HERBERT IRISH, Ph. D.,
Chemist.

GEORGE COOTE,
Horticulturist.

F. L. WASHBURN, A. B.,
Entomologist.

The work of the Station is a prominent feature of the Institution. Bulletins are issued giving such information as may be thought of interest and importance to the public, and copies forwarded to every applicant.

COMMITTEE ON FARMERS' INSTITUTE.

HON. THOS. E. CAUTHORN AND HON. WALLIS NASH,
Of the Board of Regents.

PRESIDENT B. L. ARNOLD, AND PROFESSORS FRENCH
AND WASHBURN,
Of the Faculty.

These Institutes are held in different sections of the State, under the supervision of the faculty, and to them much attention is given. For each meeting of the Institute papers upon topics of interest to the farmers of that particular section are prepared by men of extensive knowledge and experience in the subjects treated on, and by professors of the College, and, when read, are discussed by those present. These Institutes are designed to be a medium for the interchange of ideas, information and instruction between the farmers and the College. Further developments are intended to be made, and still more attention drawn to them in the coming year.

*To be filled.

STUDENTS.

POST GRADUATES.

Arnold, H. L.	Corvallis, Benton County, Oregon.
Avery, C. W.	Corvallis, Benton County, Oregon.
Lampkin, C. B.	Agricultural College, Mississippi.
Lampkin, W. A.	Agricultural College, Mississippi.
Lilly, Jennie	Corvallis, Benton County, Oregon.
Wilson, E. E.	Corvallis, Benton County, Oregon.

THIRD YEAR.

Additon, A. S.	Corvallis, Benton County, Oregon.
Allen, Anna	Corvallis, Benton County, Oregon.
Hamilton, W. B.	Oakville, Linn County, Oregon.
Starr, J. H.	Monroe, Benton County, Oregon.
Warren, May	Grant's Pass, Josephine Co., Or.
Wells, C. O.	Corvallis, Benton County, Oregon.

SECOND YEAR.

Allen, H. C.	Corvallis, Benton County, Oregon.
Andrews, P. C.	Oregon City, Clackamas Co., Or.
Alexander, Jos.	Corvallis, Benton County, Oregon.
Avery, Mattie	Paisley, Lake County, Oregon.
Denman, Annie	Corvallis, Benton County, Oregon.
Fulton, John	Corvallis, Benton County, Oregon.
Horton, Rose	Philomath, Benton Co., Oregon.
Hull, W. R.	Corvallis, Benton County, Oregon.
Johnson, Chas. L.	Corvallis, Benton County, Oregon.
Lewis, Ann	Corvallis, Benton County, Oregon.
Lockley, Fred.	Zena, Polk County, Oregon.
Louis, Leon	Corvallis, Benton County, Oregon.
Paul, Geo. L.	Corvallis, Benton County, Oregon.
Ray, Ida M.	Corvallis, Benton County, Oregon.
Stewart, Lois O.	Union, Union County, Oregon.
Wilkins, Milton	Corvallis, Benton County, Oregon.
Waggoner, Minnie	Corvallis, Benton County, Oregon.

FIRST YEAR.

Andrews, Henry A.	Oregon City, Clackamas Co., Or.
Andrews, Lyman B.	Oregon City, Clackamas Co., Or.
Bareinger, Clarence A.	Corvallis, Benton County, Oregon.
Bayne, John L.	Wrenn, Benton County, Oregon.
Bronson, Hattie	Lewisville, Polk County, Oregon.
Bristow, Addie M.	Corvallis, Benton County, Oregon.
Burns, W. W.	Wilbur, Douglas County, Oregon.
Burnett, Brady	Corvallis, Benton County, Oregon.
Burnett, Mattie L.	Corvallis, Benton County, Oregon.
Chandler, Lulu	Baker City, Baker County, Oregon.
Crees, Gussie	Corvallis, Benton County, Oregon.
Crystal, Fannie M.	Corvallis, Benton County, Oregon.
Davis, Caleb A.	Corvallis, Benton County, Oregon.
Duncan, Clara C.	Summit, Benton County, Oregon.
Denman, Geo. W.	Corvallis, Benton County, Oregon.
Davidson, Nellie	Buena Vista, Polk Co., Oregon.
Dempsey, Cora	Rickread, Polk County, Oregon.
Emmett, Elmer W.	McCoy, Polk County, Oregon.
Gellatly, Jennie	Philomath, Benton Co., Oregon.
Gharrett, Scott	Missoula, Missoula County, M. T.
Gray, A. M.	Philomath, Benton Co., Oregon.
Goodall, W. Scott	Union, Union County, Oregon.
Groshong, Julia	King's Valley, Benton Co., Oregon.
Hall, Albert	Corvallis, Benton County, Oregon.
Hall, Clarence C.	Woodburn, Marion Co., Oregon.
Harris, Sarah	Corvallis, Benton County, Oregon.
Holgate, Helen	Corvallis, Benton County, Oregon.
Hurlburt, Seth	Corvallis, Benton County, Oregon.
Hull, L. O.	Corvallis, Benton County, Oregon.
Henkle, Clarence	Corvallis, Benton County, Oregon.
Hogue, Nellie M.	Corvallis, Benton County, Oregon.
Jeffrey, John A.	Jacksonville, Jackson Co., Oregon.
Kelsay, Lyman	Corvallis, Benton County, Oregon.
Lawrence, Erma I.	Corvallis, Benton County, Oregon.
Lewis, Lettie	Lexington, Morrow Co., Oregon.
Lilly, Homer	Corvallis, Benton County, Oregon.
Lilly, Horace	Corvallis, Benton County, Oregon.
Lilly, Frank	Corvallis, Benton County, Oregon.
Leach, Altha	Lexington, Morrow Co., Oregon.

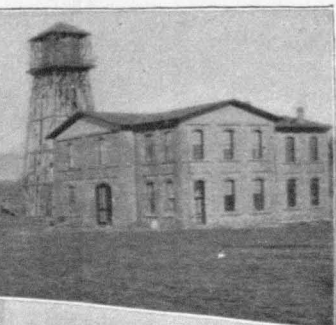
1



2



1. VIEW OF STUDENTS' HALL AND MECHANICAL HALL. 2.



COOKING CLASS. 3. GREEN HOUSE AND FORCING HOUSE.

Lyman, Ed. R.	Corvallis, Benton County, Oregon.
McFadden, Julian	Corvallis, Benton County, Oregon.
Miller, E. M.	Gervais, Marion County, Oregon.
Mitchell, Frank D.	Bonanza, Klamath Co., Oregon.
Poole, Robert S.	Junction City, Lane Co., Oregon.
Rowan, Norman	Corvallis, Benton County, Oregon.
Scott, Rich. W.	Milwaukie, Clackamas Co., Or.
Shipley, Andrew J.	Monroe, Benton County, Oregon.
Smith, C. D.	Hood River, Wasco Co., Oregon.
Satchwell, Raymond	Ashland, Jackson Co., Oregon.
Samuels, Harry	Corvallis, Benton County, Oregon.
Tibbetts, Jas. E.	Lexington, Morrow Co., Oregon.
Wilson, T. E.	Corvallis, Benton County, Oregon.
Worth, Wade	Summerville, Union Co., Oregon.
Woodward, Don H.	Corvallis, Benton County, Oregon.
Zeis, Ed. A.	Corvallis, Benton County, Oregon.

PREPARATORY DEPARTMENT.

Adamson, David P.	Halsey, Linn County, Oregon.
Applewhite, L. D.	———, Linn County, Oregon.
Avery, Oeil	Paisley, Lake County, Oregon.
Bronson, Blanche	Lewisville, Polk County, Oregon.
Brown, Walter	Corvallis, Benton County, Oregon.
Buoy, Mary	Lewisville, Polk County, Oregon.
Buchanan, John F.	Corvallis, Benton County, Oregon.
Campbell, J. J.	McMinnville, Yamhill County, Or.
Campbell, Oscar	McMinnville, Yamhill County, Or.
Caldwell, Ralph H.	Alba, Umatilla County, Oregon.
Caples, Willie L.	Columbia City, Columbia Co., Or.
Caples, Dell M.	Columbia City, Columbia Co., Or.
Caples, Fred C.	Columbia City, Columbia Co., Or.
Chandler, Marvin	Baker City, Baker Co., Oregon.
Clark, Geo. M.	Corvallis, Benton County, Oregon.
Cauthorn, Blake	Wells Station, Benton Co., Oregon.
Clemm, Nathan M.	Albany, Linn County, Oregon.
Currier, Sarah A.	Corvallis, Benton County, Oregon.
Currier, Evelyn	Corvallis, Benton County, Oregon.
Derriek, Herbert E.	Eddyville, Benton County, Oregon.

Desborough, Henry M. M.	Corvallis, Benton County, Oregon.
Friendly, Herbert M.	Corvallis, Benton County, Oregon.
Fisher, John A.	Corvallis, Benton County, Oregon.
Gaines, Chester B.	Corvallis, Benton County, Oregon.
Hays, Kate V.	Corvallis, Benton County, Oregon.
Haugh, Anna	Butte Creek, Clackamas Co., Or.
Haugh, Kate	Butte Creek, Clackamas Co., Or.
Hayden, Martin F.	Salem, Marion County, Oregon.
Huott, Ollie E.	The Dalles, Wasco Co., Oregon.
Kidder, Andrew B.	North Yamhill, Yamhill Co., Or.
Leach, Will C.	Lexington, Morrow Co., Oregon.
Laughlin, Clarence C.	North Yamhill, Yamhill Co., Or.
Long, Hattie A.	Columbia County, Washington.
Long, Brick	Columbia County, Washington.
Maddux, Jas.	Corvallis, Benton County, Oregon.
McCarty, A. V.	Little Elk, Benton Co., Oregon.
McAllister, H. L.	Lexington, Morrow Co., Oregon.
Miller, Henry F.	Irving, Lane County, Oregon.
Meserve, Henry C.	Rainier, Columbia County, Oregon.
Meserve, Thom. M.	Rainier, Columbia County, Oregon.
Meserve, Fannie	Rainier, Columbia County, Oregon.
McDaniel, Jennie	Suver, Polk County, Oregon.
McDaniel, Julia	Suver, Polk County, Oregon.
Mitchell, Arthur J.	Corvallis, Benton County, Oregon.
McKenzie, Maggie	Butte Creek, Clackamas Co., Or.
Owen, W. R.	Wrenn, Benton County, Oregon.
Olliver, Chas. W.	Summerville, Union Co., Oregon.
Overlander, Fred R.	Corvallis, Benton County, Oregon.
Pretzman, Perry	Albany, Linn County, Oregon.
Rastar, Theodore	Kingsley, Wasco County, Oregon.
Rinehart, Arthur W.	Union, Union County, Oregon.
Rhea, Waldon C.	Heppner, Morrow County, Oregon.
Smith, Elmer H.	Corvallis, Benton County, Oregon.
Stevens, Scott G.	Monroe, Benton County, Oregon.
Stone, Otto M.	Oakville, Linn County, Oregon.
Smith, Will B.	North Yamhill, Yamhill Co., Or.
Scott, Lydia	Scott's Mills, Marion Co., Oregon.
Shipley, Amy A.	Monroe, Benton County, Oregon.
Starr, Sylvia J.	Monroe, Benton County, Oregon.
Swann, B. B.	Lewisville, Polk County, Oregon.
Voorhees, Newton J.	Woodburn, Marion Co., Oregon.

Williams, Frank W.	Junction, Lane County, Oregon.
Williams, Mary L.	Junction, Lane County, Oregon.
Williamson, Emmett	Albany, Linn County, Oregon.
Williamson, Grant	Albany, Linn County, Oregon.
Wyatt, Milton A.	Corvallis, Benton County, Oregon.
Wyatt, Rosa C.	Corvallis, Benton County, Oregon.

SUMMARY.

Post Graduate Course,	6
Agricultural Course,	43
Mechanical Course,	12
Domestic Economy Course,	24
Preparatory Department,	67
Total,	<u>152</u>



LOCATION.

The Agricultural College of Oregon is located at Corvallis, in Benton county, one of the most beautiful spots in the Willamette valley. Corvallis is very healthfully situated, and has enjoyed a striking immunity from dangerous epidemics. The town is well supplied with churches, and has an intelligent and cultured population; it is accessible from the east and west by the Oregon Pacific railroad, and from the north and south by the Southern Pacific railroad.

BUILDINGS.

The College building is new and commodious, and is unsurpassed for beauty of situation.

MECHANICAL BUILDING.

A mechanical building has been erected, and furnished with tools and other means for giving instruction in the mechanic arts, such as joining, turning, forging, machine work, etc. The student is taught to draw his design and work to the drawing, and to perform all the elementary operations of constructive work in the various departments of mechanical industry.

BOARDING HALL AND DORMITORY.

We call special attention to this feature of the institution; a large, commodious building has been erected for the boys, the object of which is to provide for students cheap board and lodging, at a cost not exceeding two and one-half dollars a week, and like accommodations have been provided for the girls in a separate building. Students can earn enough on the farm to pay a large part of their expenses during the year.

POSTOFFICE, EXPRESS AND TELEGRAPH.

The postoffice address is Corvallis, Benton county, Oregon.

The Western Union Telegraph Company and Wells, Fargo & Company's Express each have offices in Corvallis, and the latter have kindly consented to carry over their lines, free of charge, objects intended for and addressed to the State Agricultural College, for their mineral cabinet and museum.

DEPARTMENTS OF STUDY.

ENGLISH.

PRESIDENT B. L. ARNOLD, A. M., Professor.

FIRST YEAR.

The English Language and its literature will be taught and studied during the whole year.

Books used: Whitney's Essentials of English Grammar, Morris' Historical Grammar of the English Language, Brooks' Primer of English Literature, Sweet's Primers, and Hale's Longer English Poems.

SECOND YEAR.

Same subject continued for girls during the whole year.

THIRD YEAR.

Third Term—Political Economy.

FOURTH YEAR.

This year will be devoted to higher studies in the above branches. Rhetoric will be taught in connection with English Literature and Logic.

AGRICULTURE.

H. A. FRENCH, M. S., Professor.

The course is specially designed to prepare young men for practical agriculture. The course of study runs through five terms during second and third years.

Second Year.—History, characteristics and adaptation of the different breeds of domestic animals; general principles of drainage; laying out and construction of farm drains; effect of drainage upon chemical and physical conditions of soil; soil tillage; rotation of crops.

Third Year.—Principles of stock breeding; origin and formation of soils; mechanical and chemical effect of tillage, mulching, etc.; managing and application of manure; green manuring; organic and mineral manures; soil exhaustion; methods of improving soils; chemistry of the dairy; dairying and experiments; chemistry of feeding; history of agriculture, etc.

Instruction is largely given by lectures, suitable books being selected for reference.

The College and Station farm consists of 180 acres, 140 of which is devoted to farm crops, pasture and experimental purposes. The farm is being equipped with buildings and tools as rapidly as the means will permit.

Opportunities are given on the farm for doing practical work in agriculture in connection with the instruction given in the classroom. A large portion of the work on the farm is done by the students. Students are required to spend not more than five hours a week during Fall and Spring terms on the farm or garden, for which they receive no pay. Such labor will be made instructive. During the winter students taking agricultural and scientific courses are required to work in mechanical shop. For all additional optional labor the student receives 15 cents per hour.

While all students in this course are required to perform more or less practical work on the farm, special effort is made to furnish work to those who will appreciate it, and who need pecuniary assistance.

MATHEMATICS AND ENGINEERING.

JOHN D. LETCHER, C. E., Professor.

The course in Mathematics includes only such of its branches as the distinctive aims of this institution require, and conforms itself, in general, to that in use in the most successful agricultural colleges.

In pure Mathematics it includes Algebra, Plane and Solid Geometry, Plane and Spherical Trigonometry, Analytical Geometry and Calculus, and in applied Mathematics, Surveying, Leveling and Road-making.

Special attention is paid to the field-work of Surveying and Leveling. The students themselves use the instruments, make the

measurements, record the field notes, and then plot and work up the notes thus obtained from actual field practice.

At all times thoroughness and accuracy are insisted upon, and orderly and logical demonstrations in the class-room are required of each student, in order that he may receive the full benefit of the application of this science to the practical affairs of life, and of its ability to strengthen and discipline the intellectual powers.

Applicants for admission into the College must have completed Arithmetic and be able to pass a satisfactory examination upon the entire subject; a thorough familiarity with vulgar and decimal fractions, and percentage in all its applications, will be required. It is *desirable*, but not necessary, that the student should have studied Algebra as far as equations.

The text-books used are Wentworth's Algebra, Geometry and Trigonometry, Cahart's Surveying, Gillespie's Road-making and Taylor's Calculus.

The Engineering department has been supplied with necessary instruments, including a compass, plane table, level, rods, chains and tapes.

MODERN LANGUAGE, HISTORY AND DRAWING.

F. BERCHTOLD, A. M., Professor.

The study of the Modern Languages is optional. Opportunity to study them is offered throughout the course. We teach, in a large measure, by conversation; read and study such text as directly come under the line of the agriculturist, and we aim to bring the student so far that he can, with a certain degree of facility and ease, read scientific literature, embracing subjects bearing on agriculture, botany, chemistry, mineralogy, etc. A practical knowledge of either German or French, but particularly of German, is a business possession for any mechanic of undoubted value.

HISTORY.

During the last term of the Preparatory year and the first and second terms of the Freshman year, United States and General History are studied, with daily recitations. Special attention is given to the gradual development of the civilization, laws, constitution

and political system of our Republic. Our aim and object is to give the student a thorough knowledge, at least, of the history of his own country, and as much of the history of the Old World as can be mastered in the time allowed.

Text-books—Barnes' "History of the United States" and Anderson's "Manual of General History."

We are well supplied with globes, maps and charts, and both text-books are supplemented by frequent lectures on the periods which are of the most importance and those that are more obscure and less fully treated in the text-book.

FREEHAND DRAWING.

Instruction in freehand drawing is given by means of lectures and general exercises from the blackboard from flat copies and from models. The work embraces a thorough training of the eye and hand in outline drawing, elementary perspective, model and object drawing, drawing from casts and sketching from nature. The effort is to render the student familiar with the fundamental principles underlying this art and to enable him to represent any object correctly and rapidly. The course is largely industrial, and the exercises are arranged, as far as possible, with reference to the drawing required in the work of the different departments.

MUSIC.

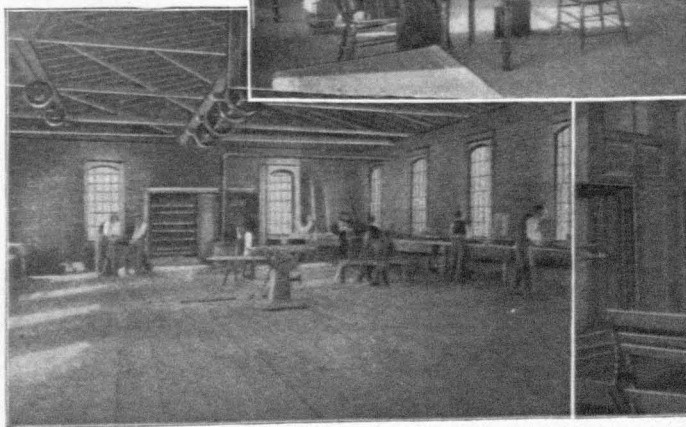
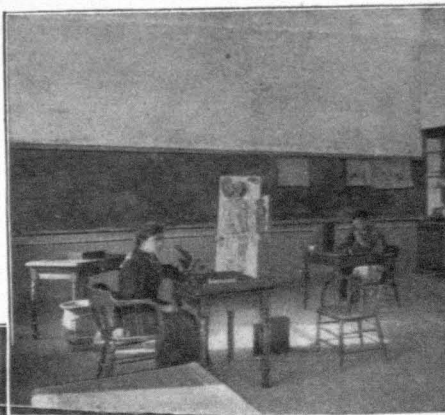
Instruction in music is given to any student desiring it free of charge. The class meets three times a week for practice in the chapel. Those participating assist in chapel exercises every morning, and also on special occasions, as well as during commencement.

Text-books—Loomis' Progressive Music Studies and Loomis' Glee and Chorus Book.

HOUSEHOLD ECONOMY AND HYGIENE.

MARGARET SNELL, M. D., Professor.

The object of this department is to teach girls how to cook, to sew, and how to take care of their own health and that of a family. Few things contribute so much to the welfare of a family, and hence of the State, as attention given to secure the good health of



1. INTERIOR OF WORKSHOP.

2. ZOÖLOGICAL LAB



ORATORY. 3. CHEMICAL LECTURE ROOM.

the household. The proper preparation of food is useful in two respects: first, it leads to health, and secondly to economy. The best methods of preparing food for the table, as well as the best methods of serving it, are taught in this department. And let no one suppose this matter a small one; there are good methods and bad ones. This department endeavors to infuse refinement into the culinary department of home life. Special attention is given to the subject of hygiene by lectures and daily precepts, the ultimate of this teaching being to inspire all with the necessity of hygienic living as the only guarantee to happiness and success in life.

ZOOLOGY AND ENTOMOLOGY.

F. L. WASHBURN, A. B., Professor.

SECOND YEAR—FIRST TERM (2D HALF.)

Physiology.—Recitations and Laboratory Work.

SECOND YEAR—SECOND TERM.

Physiology.—Recitations and Laboratory Work.

THIRD YEAR—FIRST TERM.

General Zoology.—Recitations and Laboratory Work.

THIRD YEAR—SECOND TERM.

General Zoology.—Recitations and Laboratory Work.

THIRD YEAR—THIRD TERM.

Economic Entomology.—Recitations, Laboratory Work and Field Work.

In General Zoology the student learns, by comparing the structure of animals, the principles of classification; familiarizes himself or herself with the life histories of many, paying special attention to those animals of economic importance. By drawing specimens in the laboratory and writing original descriptions of the same, the student is trained to independent observation and thought.

Text-book—Orton's "Comparative Zoology."

In Physiology each student dissects in the laboratory a typical mammal in order to get a general idea of mammalian anatomy, and to better understand references in text-books. Drawings of

these dissections are required. Laboratory work further consists of demonstrations illustrating circulation of the blood, composition of blood, mechanism and chemistry of respiration, optical phenomena, reflex action, etc., and the study of the tissues with the microscope.

Text-book—Martin's "Human Body."

In Economic Entomology the student becomes thoroughly familiar with the structure of a typical insect by dissections in the laboratory, and then, with this as a foundation, studies the classification of insects. In this course each student is taught how, and is required to make a collection of the more common insects of the State, with special reference to injurious and beneficial forms; is made familiar with the habits and life histories of insect pests of the orchard and farm, and the best means of exterminating the same. In the field, each student will, under the instructor's direction, learn how to work with insecticides, and will be required to carry on experiments to discover the best means of preventing insect ravages.

Text-book—Packard's "Entomology for Beginners."

BOTANY.

E. R. LAKE, M. S., Professor.

The subject receiving especial attention in this department is Botany in its various provinces, particularly those of most use to the farmer, as structural, systematic, physiological and economic.

The practical aspects of these various topics are given full weight in their consideration. Illustrations, experiments and examples are introduced when possible, and practical work in all manual operations connected with the economic feature of the subject is required.

In Elementary Botany the students are taught to observe for themselves, and not get ideas and facts second-hand, as from books. The aim is to so train the eye and mind of the student that he may become a good observer. At the same time the hand is also trained to assist the eye and mind by representing with type-drawings the leading families and genera of plants.

In the more advanced work in Botany students are taught, by actual use, how to manipulate and study with the compound microscope and its various accessories.

The herbarium of five thousand catalogued and classified specimens, mostly of Pacific coast flora, affords ample opportunity for special work in Botany.

HORTICULTURE.

GEORGE COOTE, Horticulturist.

The students are taught practical horticulture in all its branches, such as planting, grafting, budding, layering, making cuttings, pruning, training and cultivation of vegetables, and harvesting of fruits. Giving these a thorough practical knowledge of raising and caring for all kinds of trees, plants and vegetables.

The green houses enable this department to offer unexcelled advantages in the study of floriculture, also the propagation and culture of plants, and decoration of ornamental grounds.

Similar regulations regarding student labor are in force in this department to those in the Agricultural department. Students are required to work for five hours a week without pay; other student labor is paid at the rate of fifteen cents per hour.

CHEMISTRY AND PHYSICS.

*P. HERBERT IRISH, Ph. D., Professor.

SECOND YEAR—FIRST TERM.

General Chemistry and the Metalloids.—Recitations and lectures four hours per week. Laboratory, one hour.

SECOND YEAR—SECOND TERM.

Inorganic Chemistry.—Lectures and recitations two hours per week. Laboratory work six hours (qualitative analysis.)

*Prof. G. A. Covell, M. E., has temporary charge of the Physics.

SECOND YEAR—THIRD TERM.

Inorganic Chemistry.—Qualitative work in laboratory six hours per week. Lectures on Organic Chemistry two hours per week.

THIRD YEAR—FIRST TERM.

Chemistry of Common Life.—Five hour lectures, one-half term.

THIRD YEAR—SECOND AND THIRD TERMS.

Recitations on Elementary Physics five hours per week.

In the course on Inorganic Chemistry will also be taught some of the elements of Mineralogy as soon as the necessary minerals and charts are obtained. The Chemical department is furnished with a lecture room and a qualitative laboratory fairly well equipped for the study of the course in Chemistry given above. All the apparatus is new and costly. A gas machine provides the heating power necessary for experimental purposes.

MECHANICS AND MECHANICAL ENGINEERING.

G. A. COVELL, M. E., Professor.

This department includes work both in class-room and shop. The class-room work takes up the studies Mechanics, Mechanism and Mechanical Drawing. The shop-work includes wood-working, blacksmithing and machinist work. The student is first taught the use of tools in a series of exercise pieces, and afterward is required to apply the principles thus learned to actual construction. In all cases the student works directly from drawings which he must learn to make, to interpret and to follow accurately.

BOOK-KEEPING AND BEE CULTURE.

W. W. BRISTOW, A. B., Professor.

During the first term of the first year, the subject of Book-keeping is presented and pursued in a very thorough manner, beginning with the simplest form of cash accounts and develop-

ing through all the principles of single and double-entry, with strict reference to those forms best adapted to farm and business life.

Each student provides a full set of blanks and keeps a regular set of books, in which accuracy and neatness are made prominent features.

BEE CULTURE.

The instruction in this department is designed to give the student a thorough knowledge of all those discoveries and appliances necessary to the successful management of the apiary, giving special attention to the subjects of transferring, artificial and natural swarming, queen-rearing, Italianizing apiary, producing and marketing surplus honey, etc.

Text-book—"Bees and Honey," by Thos. G. Newman.

MILITARY SCIENCE AND TACTICS.

COL. J. D. LETCHER, Commandant.

CADET OFFICERS.

E. E. WILSON, Adjutant.

<i>Company "A."</i>		<i>Company "B."</i>
A. S. ADDITON,	Captain	C. O. WELLS.
JOHN STARR,	Lieutenant	B. HAMILTON.
GEORGE PAUL,	First Sergeant	C. L. JOHNSON.
M. WILKINS,	Second Sergeant	S. HURLBERT.
R. HULL,	Third Sergeant	J. ALEXANDER.
S. GHARRETT,	First Corporal	E. MILLER.
H. SAMUELS,	Second Corporal	R. W. SCOTT.
FRANK LILLY,	Third Corporal	LUTE HULL.

Instruction in this department is both theoretical and practical, and is required by the Act of congress, which contributed so large a part of the College's endowment. All the students not physically incapacitated from bearing arms, are regularly drilled in the school of the soldier and of the company, whilst the cadet officers and members of the senior class study Upton's "Infantry Tactics."

Experience has also demonstrated that the drill furnishes excellent physical culture, insures regular and healthful exercise,

secures a graceful carriage and dignified bearing, and cultivates the habit of prompt obedience, self-control, and the power to command.

A neat uniform of cadet gray, suitable for all occasions, is required to be worn by the male students during school hours. At the reasonable price at which the College is able to obtain it by contract, it makes an extremely economical dress. The cost of the entire suit—coat, pants, vest and cap—varies from \$14 to \$16.

The male students are divided into companies, which are officered by cadets, selected for proficiency in soldierly attainments, good deportment and scholarship. The cadet officers are expected to be examples in military deportment and general good conduct, and when on duty their orders are required to be obeyed and respected.

PREPARATORY DEPARTMENT.

W. W. BRISTOW, A. B., Professor.

The Preparatory department affords instruction in Algebra, Arithmetic (Brooks' Normal), English Grammar (W. D. Whitney's Essentials of English Grammar), Geography, History of the United States, and exercises in Reading, Writing, Spelling, and in Elocution. The students of the Preparatory department are required to perform the same kind of manual labor as the students of the College. The department is provided with commodious, well-ventilated, well-lighted rooms, and all the appliances necessary for thorough instruction.

CONDITIONS OF ADMISSION.

To the Preparatory Department.

1. The applicant must be fifteen years old.
2. He must pass a satisfactory examination in Reading, Writing, Spelling, Elementary Geography, and in Arithmetic to percentage.

To the First Year's College Class.

1. The applicant must pass a satisfactory examination in Reading, Writing, Spelling, Geography, Arithmetic and Elementary Grammar.
2. Tuition in each case must be paid in advance.

COURSES OF STUDY.

FIRST YEAR.

FALL TERM.—Agricultural Course—English, Algebra, History, Book-keeping. Household Economy Course—English, Algebra, History, Book-keeping, Sewing. Mechanical Course—English, Algebra, History, Book-keeping, Shop-work (wood). Scientific Course—English, Algebra, History, Book-keeping. Literary Course—English, Algebra, History, Book-keeping, Sewing.

WINTER TERM.—Agricultural Course—English, Algebra, History, Drawing. Household Economy Course—English, Algebra, History, Drawing, Cooking. Mechanical Course—English, Algebra, History, Drawing, Shop-work (wood). Scientific Course—English, Algebra, History, Drawing. Literary Course—English, Algebra, History, Drawing, Cooking.

SPRING TERM.—Agricultural Course—English, Algebra, Elocution, Drawing. Household Economy Course—English, Algebra, Elocution, Drawing, Dairying. Mechanical Course—English, Algebra, Elocution, Drawing, Instrumental, Shop-work (forge). Scientific Course—English, Algebra, Elocution, Drawing. Literary Course—English, Algebra, Elocution, Drawing, Dairying.

SECOND YEAR.

FALL TERM.—Agricultural Course—Geometry, Chemistry, Zoology, Agriculture. Household Economy Course—Geometry, Physiology and Hygiene, Botany (structural and systematic), Preserving and Canning Fruits, Language optional. Mechanical Course—Geometry, Chemistry, Botany, Mechanical Drawing, Shop-work (vise and machine). Scientific Course—Geometry, Chemistry, Zoology, Agriculture. Literary Course—Geometry, Physiology and Hygiene, Botany (structural and systematic), Preserving and Canning Fruits, Language optional.

WINTER TERM.—Agricultural Course—Geometry, Chemistry, Zoology, Agriculture. Household Economy Course—Geometry, Physiology and Hygiene, Modern History, Marketing and Chemistry of Cooking, Language optional. Mechanical Course—Geometry, Chemistry, Physics, Mechanical Drawing, Shop-work

(machine). Scientific Course—Geometry, Chemistry, Zoology, Agriculture. Literary Course—Geometry, Physiology and Hygiene, Modern History, Marketing and Chemistry of Cooking, Language optional.

SPRING TERM.—Agricultural Course—Trigonometry, Chemistry, Agriculture, Botany (structural). Household Economy Course—Trigonometry or Ancient History, Horticulture (one-half term), Floriculture, Dressmaking, Language optional. Mechanical Course—Trigonometry, Chemistry, Physics, Shop-work (machine). Scientific Course—Trigonometry, Chemistry, Agriculture, Botany (structural). Literary Course—Trigonometry or Ancient History, Horticulture (one-half term), Floriculture, Dressmaking, Language optional.

THIRD YEAR.

FALL TERM.—Agricultural Course—Chemistry (one-half term), Surveying (one-half term), Horticulture (one-half term), Road-making (one-half term), Physiology, Agriculture. Household Economy Course—Horticulture (Pomology), English Literature, Dressmaking and Millinery, Language and Zoology optional. Mechanical Course—Mechanics (Analytical), Chemistry, Analytical Geometry, Elements of Mechanism, Drawing, Shop-work. Scientific Course—Chemistry (one-half term), Surveying (one-half term), Horticulture (one-half term), Road-making (one-half term), Physiology, Agriculture. Literary Course—Horticulture (Pomology), English Literature, Dressmaking and Millinery, Language and Zoology optional.

WINTER TERM.—Agricultural Course—Physics, Meteorology, Physiology (one-half term), Agriculture (one-half term), Plant Physiology. Household Economy Course—Special Hygiene, Language optional, and three of following: English Literature, Physics, Zoology, Meteorology. Mechanical Course—Analytical Geometry (one-half term), Calculus (one-half term), Mechanism, Machine Design, Shop-work, Physiology. Scientific Course—Physics, Meteorology, Physiology (one-half term), Agriculture (one-half term), Plant Physiology. Literary Course—Special Hygiene, Language optional, and three of following: English Literature, Physics, Zoology, Meteorology.

SPRING TERM.—Agricultural Course—Physics, Entomology, Horticulture, Political Economy. Household Economy Course—Home Furnishing and Kitchen Gardening, Language optional, and three of following: Physics, Logic, Zoology, Entomology,

Botany (Plant Physiology). Mechanical Course—Calculus, Political Economy, Steam Engines and Motors, Drawing and Design. Scientific Course—Physics, Entomology, Horticulture, Political Economy. Literary Course—Home Furnishing and Kitchen Gardening, Language optional, and three of the following: Physics, Logic, Zoology, Entomology, Botany (Plant Physiology).

FOURTH YEAR.

FALL TERM.—Mechanical Course—Psychology, Geology, Mechanics, Astronomy optional. Scientific Course—Analytical Geometry, Psychology or Language, Geology or Language, Astronomy or Language. Literary Course—Psychology, Geology, Astronomy, Social Etiquette, Language optional.

WINTER TERM.—Mechanical Course—Constitutional Law, Rhetoric or English Literature, Mechanics. Scientific Course—Analytical Geometry (one-half term), Calculus (one-half term), Constitutional Law, Rhetoric or English Literature, Language and Business Forms and Commercial Law optional. Literary Course—Rhetoric, English Literature, Household Economy (care of the sick and invalid cooking), Language and Business Forms and Commercial Law optional.

SPRING TERM.—Mechanical Course—Logic, Ethics, Mechanics, Cryptogamic Botany optional. Scientific Course—Calculus, Logic or Language, Ethics or Language, Cryptogamic Botany and Floriculture or Language. Literary Course—Logic, Ethics, Cryptogamic Botany and Floriculture, Language optional.

Students in the Agricultural course must take one term each in wood and iron work in the shops. Students in the Agricultural or Scientific course may take Latin, French or German during the second and third years, provided it does not conflict with the regular course of studies.

In the Mechanical department, during the fourth year, special studies in mechanics will be assigned by the professor, and the students may take Latin, French or German during the second, third and fourth years, provided it does not conflict with the regular course of studies.

The Agricultural course of three years leads to the degree of Bachelor of Agricultural Science; the Household Economy course of three years, to the degree of Bachelor of Household Economy; the Mechanical course of four years, to the degree of Bachelor of

Mechanical Engineering; the Scientific course of four years, to the degree of Bachelor of Science; the Literary course of four years, to the degree of Bachelor of Letters.

The degrees of Bachelor of Household Economy and Bachelor of Letters are only conferred upon ladies.

STATE STUDENTS.

The following is the law relating to this subject, and is found on page 12, section 8, of the general laws of 1885 :

NUMBER FOR EACH COUNTY.

Until the legislative assembly shall otherwise direct, each Senatorial and Representative district in this State shall be entitled to gratuitous instruction for as many pupils as said district now has of Senators and Representatives in the legislative assembly, and also each county in the State shall be entitled to one free scholarship in said College, all of whom shall be selected as follows:

METHOD OF APPOINTMENT.

The County School Superintendent in each county shall receive and register the names of all the applicants for admission nominated by the Senators or Representatives of that county, and shall present the same to the county court sitting for the transaction of county business, and from the applicants found to possess the requisite qualifications the number of pupils to which such county is entitled shall be selected by lot.

QUALIFICATIONS.

The persons so selected shall be residents of the county for which they are selected, and shall possess such educational and other qualifications as the Board of Regents may prescribe.

VACANCIES.

Vacancies occurring shall also be filled by the county court as hereinbefore provided.

JOINT SENATORS.

In Senatorial and Representative districts composed of more than one county, the Senator or Representative for that district shall have the power to nominate and appoint one student for such district, who shall be received in said College on the same terms as the students appointed by the county court.

FEMALES MAY BE APPOINTED.

One-third of said students appointed as aforesaid may be females.

Each applicant for a free scholarship must apply to the Senator or Representative of his county and be appointed by him. His appointment must then be forwarded to the County Superintendent of Schools of that county, who will examine the

applicant; and, if he is found prepared to enter the College, his name will be handed to the County Judge by the County School Superintendent during the session of the county court. The County Judge then selects the number to which his county is entitled by lot, and issues appointments to the applicants thus selected. The following is a list of the scholarships to which each county is entitled, and the number attending:

SCHOLARSHIPS.

COUNTY.	Number of Free Scholarships.	No. Attending.
Baker	4	2
Benton	4	5
*†Coos	2	
*†Curry	1	
†Crook	2	
†Clackamas	5	4
Clatsop	4	
†Columbia	2	5
Douglas	5	1
†Gilliam	2	
†Grant	2	
†Harney	1	
†Josephine	2	
Jackson	5	
*†Klamath	1	1
*†Lake	1	1
Linn	6	2
Lane	6	4
†Marion	8	7
†Multnomah	15	
†Morrow	2	
Polk	4	7
†Sherman	1	
*†Tillamook	1	
†Umatilla	5	1
†Union	5	4
†Wasco	4	3
†Washington	5	
*Yamhill	4	5

* indicates that another can be appointed by Joint Representative from his district.

† indicates that another can be appointed by Joint Senator from his district.



EXPENSES.

TUITION.

Tuition is five dollars per term, or fifteen dollars per session for each student.

State students (those holding appointments) have free tuition.

BOARD AND LODGING.

Board and lodging may be obtained in good families for three and a half or four dollars a week.

Board and lodging in the Dormitory may be had at two and one-quarter dollars per week.

The estimated expenses are as follows :

Board, @ \$1.25 per week.....	\$ 95 00
Tuition.....	15 00
Uniform (coat, pants, vest and cap), about.....	16 00
Books, fuel, light, washing, etc.....	24 00
Total for year.....	\$ 150 00

Students who work in the Laboratory will pay for the apparatus that they break or damage.

Observations and Regulations.

Every student who enters this school is expected to be honest, to speak the truth, to obey all rules expressed or implied, to be polite and respectful in his bearing towards fellow students and the faculty, and to visitors and employes; to be prompt, attentive and diligent in his work. Whenever the college life of any student shall not answer to this character he will be relieved from further attendance at the State Agricultural College.

The following rules should be carefully read and kept in mind by both students and faculty:

1. Students upon their arrival at the College must report at once to the President, who will give them directions as to examinations and classes.
2. Students from other schools must bring certificates of good conduct from the faculty of the schools whence they come.

3. Students before being admitted to classes must pay their tuition fee.

4. Reports of absence or misconduct will be handed to the President every evening, and students will be required to answer during the next day for such absence or misconduct, and the President will at once assign such penalty as the case may require.

5. Students who receive fifty demerits during any one term, or twenty-five during any one month, shall be liable to suspension.

PENALTIES.

DEMERITS.

Absence from recitation, drill or chapel	5
Late at recitation, drill or chapel.....	2
Disorder in recitation, drill or chapel, or about the buildings or grounds	3, 5
Out of uniform.....	2
Being in Corvallis during College hours.....	5

SUSPENSION.

Contempt of authority by disobedience, insolence, or in other ways, suspension or less severe punishment, at the discretion of the faculty.

Defacement of or damage to College property, gambling, drunkenness, fighting, obscene or profane language, indecency, the entering of drinking or gambling saloons, or any offense liable to criminal prosecution, shall be punished by suspension or less severely, at the option of the faculty.

WITHDRAWAL OR EXPULSION.

If the faculty advise any student himself to withdraw from school, or his parent or guardian to withdraw him, refusal to follow this request or advice of the faculty shall be met by the expulsion of such student.



ALUMNI.

MRS. T. CALAHAN, Corvallis, Oregon.....President.
 HERBERT KITTRIDGE, Baker City, Oregon.....Secretary.
 MOSES S. NEUGASS, Corvallis, Oregon.....Treasurer.

1870.

Jas. K. P. Curran, B. S.....Farmer.
 Robt. M. Veatch, B. S.....Farmer—State Senator.
 Alice E. Biddle, B. S.....Married.

1871.

Geo. F. Burkhardt, B. S.....Farmer.
 H. McN. Finley, A. B.....Teacher and Farmer.
 Jas. D. Fountain, B. S.....Merchant.
 W. R. Privett, B. S.....Teacher and Farmer.
 Mary J. Harris, B. S.....Farmer.
 *Fannie J. Kendoll, B. S.....Married.

1872.

*Thomas C. Alexander, B. S.....Lawyer.
 *John Eglin, B. S.....Lawyer.
 Rosa Jacobs, B. S.....Married.
 Alonzo J. Locke, B. S.....Surveyor and Farmer.
 Jas. K. P. Weatherford.....Lawyer—Ex-Speaker of State Legislature.

1873.

Leander N. Liggett.....Teacher—County School Superintendent.
 Clara Thayer, B. S.....Married.
 William F. Herrin, B. S.....Lawyer.
 Oscar L. Ison, B. S.....Lawyer.

1874.

John R. Bryson, B. S.....Lawyer—County Judge.
 Thos. H. Crawford, B. S.....Teacher—County Superintendent of Schools.
 Emmet H. Taylor, B. S.....Dentist.
 Emma Thayer, B. S.....Married.

The following were graduated in Moral Philosophy and Mathematics, and were
 proficient in Chemistry.

George A. Grimes.....Surveyor and Farmer.
 William C. Crawford.....Minister and Merchant.

1875.

Reuben A. Fuller, B. S.....Farmer and Teacher.
 Phillip E. Linn, B. S.....Teacher.

*Deceased.

1876.

Addie M. Allen, B. S. Married.
 Franklin Cauthorn, A. M. Physician.
 *Isaac Jacobs, B. S. Merchant.
 George P. Leut, B. S. Real Estate Agent, Assayer of Minerals.
 Newton A. Thompson, B. S. Druggist.
 Minnie M. White, B. S. Married.

1878.

Samuel T. Jeffreys, A. B. Teacher and Lawyer.
 Frederick W. Vincent, B. S. Physician.
 Laura Thompson, B. S. Married.
 Elvin J. Glass, B. S. U. S. Signal Service.
 Moses S. Neugass, B. S. Merchant—Railroad Contractor.

1879.

*Ernest White, A. M. Teacher.
 Bartholomew T. Soden, B. S. Merchant.
 Marion Elliott, B. S. Farmer.
 Dayton Elliott, B. S. Farmer.

1880.

William E. Yates, A. M. { Professor of Languages State Normal School, Principal
 Shubel G. McCann, A. B. { Corvallis Public Schools. Surveyor.
 Lillian Glass, A. B. Teacher.
 Hattie M. Hanna, B. S. Type-writer.
 Edgar Grim, B. S. { Director of Experiment Station and Professor of Agriculture,
 State Agricultural College.

1881.

Elmer E. Charman, A. B. Merchant.
 T. Leonard Charman, B. S. Druggist.
 Jessie L. Taylor, B. S. Married.
 Ida Burnett, B. S. Teacher—Married.

1882.

William Y. Masters, A. M. Lawyer.
 Eda Jacobs, A. B. Married.
 Bertha Neugass, A. B. Married.
 Alice M. Horning, B. S. Teacher.
 Nettie Spencer, B. S. Teacher.
 Abbie Right, B. S. Teacher.

1883.

William G. Emery, A. B. Teacher—Farmer.
 William H. Holman, B. S. Book-eller and Publisher.
 George B. Hovendon, B. S. Farmer.

1884.

Lizzie J. Bayley, A. B. Merchant.
 David H. Glass, A. B. Merchant.
 Isador Jacobs, A. B. Merchant.
 William E. Newton, A. B. Physician.
 Herbert G. Ray, A. B. Chemist and Pharmacist.

*Deceased.

1885.

Alonzo Allen, A. B.	Druggist.
Fred. J. Yates, A. B.	Stenographer.
J. E. Whitney, B. S.	Farmer.
Andrew J. Buchanan, B. S.	General Agent for Publishing House.
Henrietta Harris, B. S.	

1886.

Herbert Kittridge, A. B.	Principal of Baker City Public Schools.
C. D. Thompson, A. B.	Teacher—Farmer.
B. F. Collins, B. S.	Teacher.
O. W. Robbins, B. S.	Farmer—Clerk.
Henry Holgate, B. S.	Bank Accountant.
R. J. Wilson, B. S.	Medical Student.
Diana Newton, B. S.	Teacher.
Minnie McFarland, B. S.	Teacher.
Frances Harris, B. S.	Teacher.

1887.

Laura Korthauer, B. S.	Teacher.
Robert Cooper, B. S.	Student of Veterinary Science.

1888.

J. H. Collins, A. B.	Teacher.
Wm. Hall, B. S.	Teacher.
Wm. Stock, A. B.	Druggist.
Ella Jane Lilly, B. S.	Married.
Anna Lilly, B. S.	Married.
Mary Newton, B. S.	Teacher.
Lillie Groves, A. B.	Teacher.
Jessie Groves, A. B.	Teacher.
Gertie M. Davis, B. S.	
Ira Allen, A. B.	Stenographer.

1889.

J. C. Applewhite, B. S.	Teacher.
H. L. Arnold, B. S.	
Clarence Avery, B. S.	
J. G. Buchanan, B. S.	Teacher.
R. G. Buchanan, B. S.	Farmer.
Bertha Davis, B. S.	
Clara Fisher, B. S.	
Mollie Fisher, B. S.	
Clara Irvine, B. S.	
T. A. Jones, B. S.	Druggist.
Emma Kittridge, B. S.	Teacher.
Emma Weber, B. S.	Married.
Jessie Wilkins, B. S.	Hotel Proprietor.
E. E. Wilson, B. S.	Clerk.

1890.

A. S. Addison, B. S.	
B. Hamilton, B. S.	
May Warren, B. S.	
C. O. Wells, B. S.	