DUPLICATE

English Dep't

Agricultural College Bulletin

SERIES 1. ISSUED QUARTERLY. No. 16.

Entered December 2, 1902, at Corvallis, Oregon, as second-class matter, under Act of Congress of July 16, 1894.

Freshman

LIBRARY
JUL 18 1947
OREGON STATE COLLEGE

....Oregon....
Agricultural College

L. B. Baldwin

1906-1907

WOMEN'S BUILDING

ANNUAL CATALOGUE

OF THE

AGRICULTURAL COLLEGE

OF THE

STATE OF OREGON

FOR

1906-1907

AND

ANNOUNCEMENTS FOR 1907-1908

CORVALLIS, OREGON

AGRICULTURAL COLLEGE PRESS
1907

CALENDAR

1907

JULY.

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

AUGUST.

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

SEPTEMBER.

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

OCTOBER.

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

NOVEMBER.

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

DECEMBER.

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

1908

JANUARY.

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

FEBRUARY.

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

MARCH.

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

APRIL.

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

MAY.

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

JUNE.

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

CALENDAR.

FIRST TERM.

Annual Meeting Board of Regents, Wednesday, July 17, 1907.

Entrance Examinations for Freshmen, Friday and Saturday, September 27, 28, 1907.

Registration, Monday, September 30, 1907.

Recitations begin Tuesday, October 1, 1907.

Recital School of Music, Friday, December 6, 1907.

Final Examinations, Wednesday, Thursday and Friday, December 18, 19, 20, 1907.

SECOND TERM.

Registration, Friday and Saturday, January 3, 4, 1908.

Recitations begin Monday, January 6, 1908.

Meeting Board of Regents, Wednesday, January 8, 1908,

Recital School of Music, Friday, March 13, 1908.

Final Examinations, Tuesday, Wednesday and Thursday, March 24, 25, 26, 1908.

THIRD TERM.

Registration, Monday, March 30, 1908.

Recitations begin Tuesday, March 31, 1908.

Baccalaureate Sermon, Sunday, June 14, 1908.

Final Examinations, Friday, Monday and Tuesday, June 12, 15, 16, 1908.

Recital School of Music, Friday, June 15, 1908.

Commencement Day, Wednesday, June 17, 1908.

BOARD OF REGENTS

OF THE

OREGON AGRICULTURAL COLLEGE

AND

EXPERIMENT STATION.

OFFICERS.

HON. J. K. WEATHERFORD, *President*.....Albany.
HON. E. E. WILSON, *Secretary*.....Corvallis.
HON. B. F. IRVINE, *Treasurer*.....Corvallis.

EX-OFFICIO MEMBERS.

HON. GEORGE E. CHAMBERLAIN, *Governor of the State*.....Salem.
HON. F. W. BENSON, *Secretary of State*.....Salem.
HON. J. H. ACKERMAN, *Supt. of Public Instruction*.....Salem.
HON. AUSTIN BUXTON, *Master of State Grange*.....Forest Grove.

APPOINTED BY THE GOVERNOR.

	TERM EXPIRES.
HON. J. T. APPERSON	Parkplace, 1910.
HON. W. P. KEADY	Portland, 1910.
HON. J. K. WEATHERFORD	Albany, 1910.
HON. JOHN D. OLWELL	Central Point, 1912.
HON. WILLIAM W. COTTON	Portland, 1912.
HON. WALTER M. PIERCE	Pendleton, 1912.
MRS. CLARA H. WALDO	Macleay, 1915.
HON. E. E. WILSON	Corvallis, 1915.
HON. B. F. IRVINE	Corvallis, 1915.

STANDING COMMITTEES

OF THE

BOARD OF REGENTS.

EXECUTIVE COMMITTEE.

J. K. Weatherford, *Chairman*, J. T. Apperson, E. E. Wilson, W. W. Cotton, Austin Buxton.

FINANCE COMMITTEE.

J. T. Apperson, *Chairman*, Austin Buxton, Clara B. Waldo.

COLLEGE COMMITTEE.

B. F. Irvine, *Chairman*, W. P. Keady, Walter M. Pierce.

STATION COMMITTEE.

Walter M. Pierce, J. D. Olwell, William W. Cotton.

INSTITUTE COMMITTEE.

J. H. Ackerman, Clara B. Waldo, W. P. Keady.

FACULTY AND INSTRUCTORS.

WILLIAM JASPER KERR, D. Sc.,
President.*

THOMAS MILTON GATCH, A. M., PH. D.,
Professor Political and Mental Science.

JAMES WITHYCOMBE, M. AGR.,
Professor of Agriculture.

FREDERICK BERCHTOLD, A. M.,
Professor of English and Literature.

MARGARET COMSTOCK SNELL, M. D.,
Professor of Household Science and Hygiene.

GRANT ADELBERT COVELL, M. E.,
Professor of Mechanics and Mechanical Engineering.

JOHN B. HORNER, A. M., LITT. D., Registrar,
Professor of History and Latin.

GORDON VERNON SKELTON, C. E.,
Professor of Mathematics, Civil and Mining Engineering.

ARTHUR BURTON CORDLEY, M. S.,
Professor of Zoölogy.

EDWARD RALPH LAKE, M. S.,
Professor of Botany and Forestry.

ABRAHAM LINCOLN KNISELY, M. S.,
Professor of Chemistry.

HELEN VIRGINIA CRAWFORD, B. S.,
Professor of Elocution.

GEORGE COOTE,
Professor of Floriculture and Gardening.

JOHN FULTON B. Agr., B. S.,
Professor of Mineralogy and Geology.

THOMAS HENRY CRAWFORD, A. M.,
Commerce.

CLAUDE ISAAC LEWIS, B. S.,
Professor of Horticulture.

IDA BURNETT CALLAHAN, B. S.,
Dean of Women and Assistant Professor of English.

FRED LEROY KENT, B. AGR.,
Associate Professor of Agriculture and Dairying.

*Doctor Kerr, late President of the Agricultural College of Utah, has been unanimously elected to succeed Doctor Gatch, who will retire from the Presidency July 17, 1907.

CHARLES LESLIE JOHNSON, B. S.,
Assistant Professor of Mathematics.

EMILE FRANCIS PERNOT, M. S.,
Professor of Bacteriology.

CLARENCE MELVILLE McKELLIPS, PH. C.,
Assistant Professor in Pharmacy and Materia Medica.

FRANK EDWARDS, B. M. E., M. S.,
Commandant, and Instructor in Chemistry.

JOHN COLBURN BRIDWELL, B. S.,
Instructor in Biology.

MARK CLYDE PHILLIPS, B. M. E.,
Instructor in Mechanical Drawing and Ironwork.

FARLEY McLOUTH,
Director of the Art Department.

HELEN LUCILE HOLGATE, B. H. E.,
Stenography and Typewriting.

MARK DOW McCALLISTER, B. S.,
Instructor in Woodwork.

CHARLES EDWARD BRADLEY, M. S.,
Assistant in Chemistry.

* GERARD TAILLANDIER,
Director of Music, and Instructor in German.

NICHOLAS TARTAR,
Instructor in Mathematics

MARY ELIZABETH SUTHERLAND, B. S.,
Instructor in Dressmaking.

WILL ORIAN TRINE,
Physical Director.

HARRY BEARD, B. S.,
Assistant in English and Band Master.

LOREN BURTON BALDWIN, A. M.,
Instructor in English.

EARL VINCENT HAWLEY, B. S.,
Assistant in Mechanical and Electrical Engineering.

GRACE GATCH, A. B.,
Assistant in Latin and History.

JUANITA ROSENDORF, B. S.,
Assistant in Typewriting and Stenography.

* Terms for private instruction in French can be had by applying to Professor Taillandier.

RICHARD JEFFREY NICHOLS, B. S.,
Librarian.

EDNA SHEEHY,
Instructor in Vocal Music.

WILLIAM McCAULLY PORTER,
Instructor in Blacksmithing.

FRANK McREYNOLDS,
Instructor on Stringed Instruments.

BERT GILBERT HARTSON,
Assistant in Physical Culture.

SPECIAL LECTURERS.

MRS. CLARA H. WALDO,
Short Course in Household Science.

L. B. ZIEMER,
Short Course in Dairying.

OTHER OFFICERS.

THOMAS HENRY CRAWFORD, A. M.,
Clerk and Purchasing Agent.

GEORGE BRELSFORD KEADY,
Printer.

HELEN LUCILE HOLGATE, B. H. E.,
Station Stenographer.

JUANITA ROSENDORF, B. S.,
College Stenographer and Clerk in Department of Registration.

ARTHUR WILLIAM KEADY,
Assistant Printer.

WALTER JAMES KENT,
Foreman of the Farm.

JOHN ANDERSON SPANGLER,
Engineer.

ELLSWORTH ERWIN,
Janitor.

ROBERT CLEMENT WILLS,
Carpenter.

WILLIAM WICKS, M. S.,
Assistant in Horticulture.

ARTHUR GEORGE BOUQUET, B. S.,
Assistant in Floriculture.

FACULTY COMMITTEES.

ACCREDITED SCHOOLS.—Pernot, Covell, T. H. Crawford, McLouth.

ADVANCED STANDING.—Knisely, Kent, Phillips, Bridwell.

ADVISORY COMMITTEE.—Covell, Snell, Horner, Withycombe.

ATHLETICS.—Johnson, Trine, Hartson, Fulton.

DISCIPLINE.—Skelton, Horner, Callahan.

EMPLOYMENT.—Coote, Withycombe, Knisely, Edwards.

ENTRANCE EXAMINATIONS.—Tartar, Baldwin, H. V. Crawford, Callahan.

GRADUATES.—Berchtold, Kent, McLouth.

LECTURES AND LITERARY ENTERTAINMENTS.—H. V. Crawford, Edwards, Horner, Bradley.

LEGISLATION.—Withycombe, Covell, Bridwell.

LIBRARY.—Callahan, Withycombe, Holgate, Horner, Gatch.

LITERARY SOCIETIES.—Snell, McKellips, Pernot.

MASTER'S DEGREE.—Lake, Skelton, Cordley.

MUSIC.—Taillandier, Sheehy, T. H. Crawford, Fulton, Holgate.

PUBLICATIONS.—Horner, Berchtold, Lake, Cordley.

SOCIAL ENTERTAINMENTS.—Cordley, H. V. Crawford, Kent, Bradley.

TERM SCHEDULES.—Fulton, Horner, Johnson, Beard, Phillips.

THE STATION STAFF.

WILLIAM JASPER KERR, D. Sc.,
President.

JAMES WITHYCOMBE, M. AGR.
Director and Agriculturist.

ARTHUR BURTON CORDLEY, M. S.
Entomologist. and Plant Pathologist.

EDWARD RALPH LAKE, M. S.
Botanist.

GEORGE COOTE
Florist and Gardener.

ABRAHAM LINCOLN KNISELY, M. S.
Chemist.

FRANK EDWARDS, B. M. E., M. S.
Assistant Chemist.

CHARLES EDWARD BRADLEY, M. S.
Assistant Chemist.

FRED LEROY KENT, B. AGR.
Assistant Agriculturist and Dairy Instructor.

EMILE FRANCIS PERNOT, M. S.
Bacteriologist.

CLAUDE ISAAC LEWIS, B. S.,
Horticulturist.

THOMAS HENRY CRAWFORD, A. M.
Clerk and Purchasing Agent.

HELEN LUCILE HOLGATE, B. H. E.
Stenographer.

FRED CLARK EWING, B. S.,
Assistant Entomologist.

Oregon Agricultural College.

HISTORY.

By an act of Congress, approved by President Lincoln, July 2, 1862, a grant of land was made to each state in the Union in the amount of thirty thousand acres, or its equivalent, for each Senator and Representative to which the state was entitled by the apportionment of the census of 1860.

The proceeds under this act were to constitute a perpetual fund the principal of which was to remain forever undiminished; but interest arising from said fund, in each state which should avail itself of the benefits of the act, was to be applied inviolably to the support and maintenance of a "College where the leading objects shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such a manner as the legislatures of the states may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."

Ninety thousand acres of land were apportioned to Oregon, and by an Act approved October 9, 1862, the Legislative Assembly of Oregon accepted the provisions of the congressional law.

In 1868 the state legislature appointed three commissioners to locate the land; and a report of the selections made, was submitted in 1870.

There were in 1868 no state colleges in Oregon, and the same legislature that provided for the selection of the land gave the use of the funds that should arise from the sale of such land to the Corvallis College, in Benton county, an institution of learning under the control of the M. E. Church, South.

None of the land of the land grant having as yet been sold, the legislature made a small annual appropriation to support the school until the fund to be derived from the grant should become adequate.

In 1885 the church voluntarily relinquished its claim on the funds of the Agricultural College, and the state assumed control vesting the full management of the college in a board of regents.

In the summer of 1887 the corner-stone of a brick structure, now known as the administration building, was laid by the Governor of Oregon amid imposing ceremonies. This building, erected by citizens of Benton county on the Agricultural College farm, was the nucleus around which eleven other buildings eventually clustered as necessity and growing interests demanded.

THE MORRILL ACT.

On August 30, 1890, "An Act" was passed by Congress "to apply a portion of the proceeds of the public lands to the more complete endowment and support of the colleges for the benefit of agriculture and the mechanic arts established under the provisions of an act of Congress approved July 2, 1862."

This act provided that in 1890, $15,000 should be paid to each of the land grant colleges and that the amount so

appropriated should be increased by the sum of $1,000 annually for ten years, and that thereafter the amount annually appropriated should continue to be $25,000.

It also is provided that this money shall be "applied only to instruction in agriculture, the mechanic arts, the English language and the various branches of mathematical, physical, natural and economic sciences with special reference to their application in the industries of life, and to the facilities for such instruction." And it further provided that "no portion of said moneys shall be applied, directly or indirectly, under any pretense whatever, to the purchase, erection, preservation, or repair of any building or buildings."

THE HATCH ACT.

In addition to the above, this college receives from the United States, under the "Hatch Bill" of 1887, the sum of $15,000 a year for conducting experiments in agriculture. With this sum it supports an agricultural experiment station in connection with the college. Although the "Hatch Fund" is used entirely for experiment work, it is exceedingly valuable to students in agriculture and horticulture.

THE ADAMS ACT.

What may be known as the "Adams Act" was passed by Congress in March last. It carries with it an appropriation to supplement the Hatch Act. It makes an initial appropriation of $5000 available next fiscal year and an annual increase of $2000 until in the aggregate it amounts to $15,000. This fund is to be under the control of the Department of Agriculture and will probably be placed under the immediate supervision of the office of Experiment

Stations. This will give the Experiment Station control of $30,000, instead of the $15,000 now at its command.

LOCATION.

The State Agricultural College is located at Corvallis, Oregon, near the head of navigation on the Willamette river and is accessible by railway from the east, west, north and south. The city, as its name indicates, is in the heart of the Willamette valley. To the east is the Cascade range with its snow-capped peaks, while to the west, and near at hand is the Coast range. Chintimini, the tallest in the range, is covered with snow for several months of the year, and, though fourteen miles away, adds beauty to the scene.

A COLLEGE TOWN WITHOUT A SALOON.

Corvallis is a city of two thousand inhabitants, many churches and *no saloons*. The city, which is situated on high ground, has never been visited by any dangerous epidemic disease. The State Board of Health and other authorities have made frequent mention of the healthfulness of Corvallis and vicinity; and have spoken of the location of the College as one of the chief causes of its rapid growth.

COLLEGE GROUNDS.

The College grounds cover an area of 224 acres. Of this acreage about three-fifths is devoted to croppage including the common farm and garden crops, native pasture, orchards, small fruits and vines. The remaining two-fifths is devoted to lawns, shrubberies, athletic grounds and flower-gardens. The main campus is tastefully designed for landscape effects

and the ultimate purpose is to use native trees and shrubs for the body of the plantings, with a view to exhibiting the value of our native plants for ornamental and economic purposes.

BUILDINGS.

"The Administration Building was erected by the citizens of Benton County, and with 35½ acres of ground was donated to the State of Oregon, as an inducement to the people of the State to locate permanently the State Agricultural College at Corvallis. It is a three story brick building containing fourteen rooms suitably arranged and well adapted for school purposes. It is of the estimated value of $25,000.00.

The Agricultural Hall, which is a three-story Oregon gray granite and sandstone building 85x125 feet, is situated about 150 yards southeast of the Administration Building. It is intended for an assembly hall for the Agricultural and Horticultural classes, laboratories and class rooms and for all purposes connected with agriculture and chemistry, dairying and the Experiment Station. It cost about $42,000.00.

Mechanical Hall is located about 150 yards northeast of the Administration Building. It is constructed of Oregon gray granite and sandstone. It is two stories high, 90x100 feet. It is a fine substantial building, well arranged and admirably adapted for the purpose for which it is used. It is valued at $23,000.00 and contains machinery worth $12,000.00.

The Armory is situated south of the Administration Building some 200 yards. This is a large two story wooden structure 70x120 feet. It is used for public gatherings, for

armory purposes, gymnasiums, etc. It is valued at $10,000.

Cauthorn Hall is a three-story wooden structure intended for a home for young men attending the College and will accommodate 100 persons. It is valued at $15,000.00.

Alpha Hall is a two-story frame building, designed as a home for young ladies attending College and will accommodate 40 persons. It is valued at $4,000.00.

Horticultural Building stands north of the Administration Building about 200 yards. Its rooms are used as class rooms and these are connected with laboratories and green houses. The building, including laboratories, is valued at $2,500.00.

The Mining Laboratory, which is situated just south of the Administration Building, is a frame structure of the value of $4,000.00.

West of the Administration Building and about 200 yards distant, is located the blacksmith shop, a one story brick structure, large and roomy, valued at $6,000.00.

North of the Administration Building is the heating and power plant. The building is of brick and the plant consists of two boilers each of 75-horse power, and one of 50 horse power, of superior make and quality, also a 40 horse power engine and suitable dynamos to furnish light and power. From this plant all the buildings on the grounds are heated, by means of pipes conducting the heat underground to the various buildings. Electricity is generated by steam power and is conducted to all of the buildings belonging to the College. The building,machinery and heating apparatus are valued at $33,000.00.

The farm has also good barns, a number of silos, the usual farm machinery and is of the value of $2,500.00.

STUDENT LIFE.

CAUTHORN HALL.

Cauthorn Hall, commonly known as the Young Men's Hall, was named in honor of Senator Thomas Cauthorn, a benefactor of the Oregon Agricultural College. It was erected in 1891, for the use of young men who desire to live economically while attending school and at the same time enjoy the privileges and influences of dormitory life. The building, which is conveniently located and amply supplied with hot and cold water, bath rooms, steam heat and electric lights, is sufficiently large to accommodate one hundred persons. The dining room, kitchen, and reading room are pleasant and well furnished. Students' rooms are uniformly ten feet wide, and respectively fourteen, seventeen and twenty feet long.

Each student's room is furnished with a table, chairs, a chest with drawers; and each student is supplied with mattress, springs and a bedstead three feet wide and six feet long. The student is expected to furnish four sheets, two pillowcases, blankets, quilt, pillow, window-blind 3 x 6½ feet, towels, broom, dustpan, washbowl, pitcher, slop-pail, mirror, comb, brushes, tumblers, carpet, pictures and other ornaments that will make his room comfortable and homelike. He should bring a dictionary and such other books as are used for study, for reference, and for profitable entertainment.

The hall is managed by Mr. and Mrs. R. L. Whitehead with Instructor Mark Dow McCallister as resident master.

To obtain a room in Cauthorn Hall it is necessary for the applicant to furnish satisfactory evidence that

he does not use tobacco nor profane language, and that his conduct is gentlemanly at all times.

The cost of living at Cauthorn Hall, including rent, heat, board, etc., is $3.00 per week payable monthly, in advance. No reduction will be made during the term, save for prolonged absence caused by sickness, when one-half will be deducted.

Each student on engaging a room is required to deposit $3.00 with the manager, which amount—loss and breakage deducted—will be returned when the room is vacated.

The hall is furnished with a reading room which is supplied by the club with choice current literature.

Relatives and visiting friends will be charged 15 cents per meal and 20 cents for lodging.

Cauthorn Hall will be closed during the winter holidays.

For further information send for special circular.

WOMEN'S HALL.

Women's Hall has been provided by the State of Oregon as a home for young women attending the Oregon Agricultural College. The building, which will be ready for occupancy at the beginning of the next school, will be supplied with the necessary furniture, steam heat, electric lights, bath rooms, hot and cold water, and other modern conveniences. A special circular free to all will be issued after the annual meeting of the Board which will furnish particulars such as cost of living at the Hall, what the student is expected to furnish, etc.

SOCIAL LIFE OF THE STUDENTS.

Literary contests are common events, the societies meeting in joint session, with prominent citizens as judges. The

Y. M. C. A. and Y. W. C. A. hold their regular sessions at the college every Sunday afternoon throughout the school year. These gatherings aid materially in developing the social and spiritual life of the members. At the beginning of the school year these associations conduct an employment bureau also a bureau of information at their headquarters, and furnish Y. M. C. A. hand-books gratis to all students. Each year a popular course of lectures free to all students is given, under the direction of the faculty, by distinguished speakers from various parts of the state. Vocal and instrumental music intersperse various features of the college work, so that a student in a career of four years may not leave the institution without the refining influences of this important art. Physical culture is encouraged in every way at the gymnasium and on the training grounds. Bowling, fencing, Indian-club swinging, dumb-bell exercises, foot ball, basket ball, base ball, golf and lawn tennis occupy the spare moments of the students in a happy commingling of all classes. These social affairs, although under the direction of a committee of the faculty, are managed by the students who thereby acquire a training in social life destined to be of great value to them.

Corvallis is pre-eminently a college town noted for social clubs, literary societies, and active churches which vie with each other in friendly interest and hospitality toward our young people. More and more as the institution progresses, patrons of the college move hither that they may be with their children and at the same time enjoy the refining influences and cultured society of a college community.

"* * * Alluding to a reference which had been made, Mr. Brown explained that he did not fully understand what was meant by the word 'crank' and said in effect, 'I want

to congratulate the people of Benton County upon the lofty character of their citizenship. I want to congratulate Benton County and her citizens upon the high reputation she carries among her sister counties. I want to add that no county in Oregon, in proportion to its population, has so little litigation in the courts, as does this county of Benton with its alleged cranks. No county in Oregon in proportion to its population has so few criminal prosecutions; no county has so few persons brought to the bar of justice; no county in the second judicial district is at so little expense in the conduct of its court as is Benton and no county anywhere is so well fitted by the character of its people to be the home of a great educational institution, as is Benton County, with its so-called cranks.'"—*From an address by District Attorney George Brown before the Circuit Court of Benton.*

SOCIETIES.

The students maintain ten literary societies, five for young ladies and five for young gentlemen. These societies are of a semi-fraternal nature, offering to their members social as well as literary advantages. The exercises consist principally of essays, declamations, debates and music. Public and joint meetings are held by permission of the faculty. Many other features of college life, social and literary, are under their supervision.

The following is a list of the different literary societies now in existence:

For young ladies: Sorosis, Pierian, Feronian, Utopian, Clionian.

For young men: Amicitia, Jeffersonian, Philadelphian, Zetagathian, Athenaeum.

The membership of each of these societies is limited to forty. The other societies in the College are the Miners' Association, Engineer Association, Hindu-American Association, Agricultural, Prohibition, and Camera Clubs.

BAROMETER.

In March, 1896, the literary societies of the college began the publication of a monthly periodical, the "College Barometer." The enterprise met with marked success, and the paper, controlled entirely by students, now wields a strong influence in all college affairs. During the coming year every effort will be made to improve it and make it of interest not only to those directly connected with the school, but to all who are in touch with literary, scientific and industrial education. The editors will be pleased to receive news of alumni and other persons formerly connected with the college. Brief, pointed notes, accounts of scientific experiments and discoveries, and short, well-written and instructive literary articles are also solicited.

ATHLETICS.

The Oregon Agricultural College is a member of the Northwest Intercollegiate Athletic Association. This association is composed of the leading colleges and universities of the Northwest, organized for the better control of college athletics.

The students also maintain an athletic association known as the Athletic Union of the Agricultural College of Oregon. This organization supports foot-ball, base-ball, basket-ball and track teams and has general charge of all athletics under the supervision of the athletic committee of the faculty.

The College now owns a fine athletic field properly fenced, a neat and commodious grandstand, an excellent quarter-mile track. The enclosed area is thoroughly drained, graded and seeded, making this one of the best athletic fields in the Pacific Northwest.

The training and the physical condition of all athletes are supervised by the Director of Athletics, W. O. Trine, who has long been recognized as one of the most efficient trainers on the coast.

Owing to the growth of this department, B. G. Hartson was recently engaged as assistant instructor in physical culture.

GOVERNMENT.

The college does not undertake to prescribe in detail either its requirements or prohibitions. Students are met on a plane of mutual regard and helpfulness. Our appeal is to a proper sense of the proprieties of life and the necessity of organization on such a basis.

Established by a government that recognizes no distinction of religious belief, the Oregon Agricultural College seeks neither to promote any creed nor to exclude any; but it will always do everything in its power to promote the religious spirit and life.

Whenever the college life of any student is such that his influence, directly or indirectly, is injurious to the work of the institution, he will be relieved from further attendance at this college.

COURSE OF LECTURES.

In addition to the regular lectures given in the various departments by members of the faculty, a course of lectures by representative men, is delivered at convenient intervals

during the year. These lectures bring young people in contact with leaders in the various departments of human endeavor; arouse investigation on current topics; stimulate students to emulate the achievements of specialists; give breadth of scholarship to the student and aid in developing the character of the institution. They rank among the most attractive features of college life and are free to all students.

CONDITIONS OF ADMISSION.

All applicants for matriculation in any department except music must be at least fifteen years of age.

To enter the freshman year the applicant must be able to pass a satisfactory examination in reading, spelling, geography (physical and descriptive), arithmetic (written and mental), United States history, English grammar, and algebra to quadratics.

ADMISSION FROM OTHER COLLEGES.

Students from other colleges must show a certificate of good standing, or honorable dismissal. Such applicants will receive credit for studies pursued in any college authorized to confer degrees, so far as the two courses are equivalent, upon presenting a certificate of standing from the proper officers.

ADMISSION FROM ACCREDITED SCHOOLS.

Graduates from the following accredited high schools and academies will be admitted to the freshman year without examination, provided they have completed algebra to quadratics:

Albany,
Astoria,
Ashland.
Baker City,
Bandon (Major Course),
Burns,
Carlton,
Coquille Collegiate Institute,
Corvallis,
Cottage Grove,
Cove,
Elgin,
Eugene,
Forest Grove,
Fossil,
Garland Academy,
Grant's Pass,
Gresham,
Heppner,
Hillsboro High School,
Hill's Military Academy,
Hood River,
Independence,
Jacksonville,
Klamath Falls,
Lafayette High School,
La Grande,
Lakeview,
Lebanon,
Marshfield,
McMinnville,
Medford,
Milton,
Moro,
North Yamhill,
Oregon City,
Ontario,
Parkplace,
Pendleton,
Portland,
Prineville,
Roseburg,
Salem,
Santiam Academy,
Silverton,
Summerville,
The Dalles,
The Allen Preparatory School, Portland,
Tillamook,
Union,
Vale,
Wasco,
Woodburn.

Those completing the two-year high school course prescribed by the Oregon State Board of Education will be permitted to register as Freshmen without examination. Those completing the four-year high school course may, upon presenting their diplomas, register as Sophomores. The heads of our various departments will give credit for equivalent work done in class or laboratory.

ADMISSION UPON CERTIFICATES AND STATEMENTS.

The holder of a certificate or statement signed by the county school board of examiners certifying that at a regular teachers' examination he received a satisfactory grade to entitle him to a teacher's certificate, may be admitted to all the freshman classes except algebra. He may remove

such deficiency in algebra upon furnishing the President with a satisfactory statement from a teacher or school superintendent that the applicant is familiar with the subject of algebra to quadratics; or, upon arrival at the college, he may make good such deficiency by examination or by class recitation.

ADMISSION TO THE SUB-FRESHMAN CLASS.

The course of instruction offered under this head is intended for young people who live at considerable distance from an academy or high school, and are unable to attend such, but have finished the eighth grade in a good public school. No tuition is charged. The work is distributed in the three terms as follows:

SUB-FRESHMAN YEAR.

FIRST TERM.

English Grammar 5	English A
English Composition 5	English B
Arithmetic 5	Mathematics A
Physical Geography 5	Geography A
Reading 1, 2.	Elocution A
Military Drill 2½, 5 (young men)	Military A
Physical Culture 1½, 3 (young ladies)	Physical Culture A

SECOND TERM.

English Grammar 5	English C
English Composition 5	English D
Elementary Algebra 5	Mathematics B
U. S. History 5	History A
Elocution 1, 2	Elocution B
Military Drill 2½, 5	Military B
Physical Culture 1½, 3	Physical Culture B

THIRD TERM.

Civil Government	Civics A
English Grammar 5	English E
English Composition 5	English F
Algebra 5	Mathematics C
U. S. History 5	History B
Elocution 1, 2	Elocution C
Military Drill 2½, 5	Military C
Physical Culture 1½, 3	Physical Culture C

According to a regulation of the board of regents students shall not be admitted to this class who come from towns or cities of more than fifteen hundred inhabitants, or from such communities as are supporting good high schools.

ADMISSION OF SPECIAL STUDENTS.

None can be admitted as irregular or special students unless they belong to one of the following classes:

1. Those who desire to devote special attention to music and take at least two lessons a week in our department of music.
2. Those who on account of poor health certified by physicians cannot take a complement of studies.
3. Residents who are heads of families and have household duties to look after.
4. Residents who are engaged in a regular business or profession and have time for only one or two studies.
5. Such persons as may be permitted to take special studies by vote of the Faculty at a regular monthly meeting.

DIRECTIONS TO NEW STUDENTS.

Special students and also applicants for admission with credentials from universities, colleges, academies and high schools—graduates from accredited schools being excepted—shall report to the President.

Applicants who have previously matriculated in this College and those who hold teachers' certificates or have graduated from accredited schools and desire to enter the Academic department, also 8th grade graduates from country schools who desire to matriculate as Sub-Freshmen, should apply to the Registrar.

Unless otherwise ordered by the President, all other applicants for admission will apply to Professor Tartar,

chairman of the committee on examinations, who will appoint the time and place for examination.

SCOPE OF THE INSTITUTION.

The scope of the institution, as now organized, cannot be better stated than in the comprehensive words of the act of Congress defining the duty of this and similar colleges:

"The leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislature of the state may prescribe, *in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life.*"

Based upon a broad foundation, the special work of the Oregon Agricultural College is the training of youth in those branches of learning which lie at the foundation of modern industrial pursuits. In accordance with the purposes of its founders, and the terms of its original charter, it aims to give special and prominent attention to agriculture, both theoretical and experimental; but it also provides "a liberal and practical education" in the leading branches of mathematical, natural and physical sciences, in order to prepare youth "for the several pursuits and professions of life." It has increased its subjects and courses of study, and its teaching and illustrative equipment, to such an extent that now, "without excluding classical studies," its leading object is to teach the various sciences in such a manner as to show their applications in the more important industries, and to combine with every branch of instruction such an amount of actual practice in the shop, the field, and the laboratory as will serve to illustrate and apply the theory, without subordinating it. The course in agriculture, as now arranged, conforms very closely to the

recommendations of the *Association of American Agricultural Colleges and Experiment Stations*. The range of work in the various courses is shown, as far as space will allow, in the following descriptive statements and schedule. It is confidently believed that few institutions in the country furnish opportunities for obtaining advanced scientific education to an equal extent and thoroughness at so moderate a cost and with so many incidental advantages.

DEGREES AND COURSES OF STUDY.

UNDERGRADUATE WORK.

The college offers nine courses of instruction of four years each leading to the degree of Bachelor of Science, viz:—

Agriculture,
Forestry,
Household Science,
Mechanical Engineering,
Electrical Engineering,
Mining Engineering,
Civil Engineering,
Pharmacy,
Literary Commerce.

All of these require training in English, mathematics, history, elocution, drawing and such other branches as are requisite to a practical education.

In order that the college may meet the needs of a greater number of people and the students intensify along special lines, much of the work is made elective, as may be seen by reference to the courses of study published elsewhere in this catalogue.

In addition to the above courses provision has been made for courses in Vocal and Instrumental Music, a two-year

course in Mining, a two-year course in Pharmacy, and short course in Agriculture and Dairying.

GRADUATES AND THESES.

Students intending to graduate must file notice of such intention accompanied with subject of thesis in the President's office on or before November 1. All theses should be ready for criticism by the Professor in English not later than April 15, and shall be neatly recopied and bound by May 25. Applications for certificates in a two-year course shall be filed not later than June 1.

GRADUATE WORK.

That students may be encouraged to continue their college work after graduation, the board of regents has made provision for courses leading to advanced degrees.

ADVANCED DEGREES.

Advanced degrees will be given to graduates of this college, or similar approved colleges, upon the following conditions:—

DEGREES IN ENGINEERING.

Degrees in Engineering will be conferred on graduates completing the fifth or graduate year in the following courses upon the approval of their theses by the head Professors:

Agriculture,
Electrical Engineering,
Mechanical Engineering,
Mining Engineering.

MASTER'S DEGREE.

An applicant for this degree must present himself for examination in one major and at least one minor study. Major and

minor courses of two years leading to the degree of Master of Science, to be selected from different departments, approved by the faculty, are provided for in the departments of Agriculture, Botany, Forestry, Chemistry, Economics, Horticulture, Zoology, Mechanical and Electrical Engineering and Household Science. The minor, at the option of the student, may also be taken from the departments of Mathematics, English, History or Modern Languages. The candidate mustprepare a thesis, based upon original research, which shall show scholarly acquirements of a high order. This thesis must be printed or typewritten and bound, and two copies of it left in the college library. The candidate must spend at least one academic year, or its equivalent, as a resident student at this college in preparing for this degree.

The graduate year looking to the Engineering Degree will be accepted as the residence year for the Master's Degree.

Application for a Master's Degree shall be made to the Committee on Master's Degree, and if approved by the committee shall be submitted to the faculty for acceptance. If accepted by the faculty the candidate will be permitted to enter upon the prescribed courses of study leading to such degree; providing, the above application, when submitted to the committee, contained an exact statement of the work elected.

ALUMNI DIRECTORY.

Since the triennial edition of the catalogue containing the alumni directory will be issued regularly, all members and friends of the alumni association are earnestly invited to forward to the Registrar prior to April 1, such information as they may have relative to the addresses and occupations of the alumni.

COURSE IN AGRICULTURE.

FRESHMAN YEAR.

FIRST TERM.

Algebra 5 ..... Mathematics I.
English Composition 5 ..... English I
General History 5 ..... History I.
* { Freehand Drawing 1½, 3 ..... Drawing I.
  { Elocution 1, 2 ..... Elocution I.
*Woodwork 2½, 5 ..... Shopwork I.
Military Drill 2½, 5 ..... Military I.

SECOND TERM.

Geometry 5 ..... Mathematics IVa.
English Composition 5 ..... English II.
* General History 5 ..... History II.
Elocution 1, 2 ..... Elocution II.
Freehand Drawing 1½, 3 ..... Drawing II.
Woodwork 2½, 5 ..... Shopwork II.
Military Drill 2½, 5 ..... Military II.
Physical Culture 1, 2 ..... Physical Culture I.

THIRD TERM.

Geometry 5 ..... Mathematics Va.
Composition and Rhetoric 5 ..... English III.
Plant Morphology 5, 7 ..... Botany I.
Breeds of Stock 5 ..... Agriculture I.
*Freehand Drawing 2½, 5 ..... Drawing III.
Military Drill 2½, 5 ..... Military III.

* Latin may be elected instead, but no credit will be given towards graduation for less than the full course of six terms.

SOPHOMORE YEAR.

FIRST TERM.

General Chemistry 5, 7 ..... Chemistry I.
Trigonometry 5 ..... Mathematics VI.
Rhetoric 5 ..... English IV.
* Plant Histology 5, 7 ..... Botany II.
Blacksmithing 1½, 3 ..... Shopwork IV.
Military Drill 2½, 5 ..... Military IV.

SECOND TERM.

Physics 3 ..... Physics I.
Physical Laboratory 2, 4 ..... Physics III
General Chemistry 5, 7 ..... Chemistry II.
Rhetoric 4 ..... English V.
Soils and Manures 2½ ..... Agriculture III.
Dairying 2½ ..... Agriculture II.
*Blacksmithing 2½, 5 ..... Shopwork V.
Military Drill 2½, 5 ..... Military V.
Physical Culture 1, 2 ..... Physical Culture II.

THIRD TERM.

*Physics 3 ..... Physics II
Physical Laboratory 2, 4 ..... Physics IV.
Qualitative Analysis 5 ..... Chemistry XV.
English Literature 5 ..... English VI.
Zoology 5, 7 ..... Zoology I.
Irrigation and Drainage 5 ..... Agriculture IV.
Military Drill 2½, 5 ..... Military VI.

JUNIOR YEAR.

FIRST TERM.

English Literature 5 ..... English VII
*Entomology 5, 7 ..... Zoology II.
Agricultural Chemistry 5 ..... Chemistry IV.
Dairying 5 ..... Agriculture V.
Military Drill 2½, 5 ..... Military VIII.
Military Science 1 ..... Military Science I.

SECOND TERM.

Plant Physiology 5, 7 ..... Botany III.
*Literature 5 ..... English VIII.
Vertebrate Anatomy 5, 7 ..... Zoology III.
Agricultural Chemistry 5 ..... Chemistry IVa.
Military Drill 2½, 5 ..... Military IX.
Military Science 1 ..... Military Science II.

THIRD TERM.

American Literature 5 ..... English IX.
*Surveying 5, 9 ..... Civil Engineering IV.
†Quantitative Chemistry 5, 7 ..... Chemistry V.
American Politics 5 ..... Political Science II.
Physiology 5, 7 ..... Zoology IV.
Steam Engine 1, 2 ..... Mechanics IV.
Military Drill 2½, 5 ..... Military XI.
Military Science 1 ..... Military Science III.

† Required of students who elect thesis work in the department of chemistry.

SENIOR YEAR.

FIRST TERM.

Economics 5 ..... Political Science I.
Geology 5 ..... Geology I.
Horticulture 2½, Hort. I, or Agrostology 2½ ..... Bot. XII.
German 5, or ..... German I.
French 5 ..... French I.
Military Drill 2½, 5 ..... Military XII.
Military Science 1 ..... Military Science IV.

†*Electives.*

Chemistry 5, 7 ..... Chemistry VI.
Mineralogy 3, 6 ..... Mineralogy I.
The Forest 2 ..... Forestry V
Kitchen Gardening ..... Gardening I.
Botany 5, 7 ..... Botany V.
Zoology 5, 7 ..... Zoology VI.
Bacteriology 5, 7 ..... Bacteriology I.

SECOND TERM.

Psychology 5 ..... Mental Science I.
Horticulture 2½ ..... Horticulture II.
Stock Feeding and Breeding 5 ..... Agriculture VI.
German, or ..... German II.
French 5 ..... French II.
Military Drill 2½, 5 ..... Military XIV.
Military Science 1 ..... Military Science V.

†*Electives.*

Botany 5, 7 ..... Botany V.
Forest Industries 5 ..... Forestry VIII.
Kitchen Gardening 5 ..... Gardening II.
Chemistry 5, 7 ..... Chemistry VII.
Zoology 5, 7 ..... Zoology VII.
Bacteriology 5, 7 ..... Bacteriology II.

Assaying 3, 6 ..... Mineralogy IV.
Elocution 1, 2 ..... Elocution V.

THIRD TERM.

Soil Physics 5, 7 ..... Chemistry XXII.
Veterinary Science 5 ..... Agriculture VII.
Horticulture 5 ..... Horticulture III.
German, or ..... German III.
French 5 ..... French III.
Military Drill 2½, 5 ..... Military XVI.
Military Science 1 ..... Military Science VI.

†*Electives.*

American Literature 5 ..... English IX.
Astronomy 5 ..... Mathematics XI.
Forest Economics 5, or ..... Forestry X.
Forest Policy ..... Forestry XII.
Olericulture 5 ..... Olericulture I.
Agricultural Engineering 5 ..... Civil Engineering X.
Botany 5, 7 ..... Botany VI or VII.
Zoology 5, 7 ..... Zoology VIII.
Chemistry 5, 7 ..... Chemistry VIII.
Bacteriology 5, 7 ..... Bacteriology III.
Assaying 3, 6 ..... Mineralogy IV.

† In addition to the required studies seniors must select from the electives a sufficient number of hours to form a full course of 22 hours, counting thesis five hours for last two terms.

A student may upon obtaining written consent of the heads of departments interested, substitute higher mathematics for any other branch of study.

GRADUATE YEAR.

FIRST TERM.

German 5, or.....German IV.
French 5 .....French IV.
Highway Construction 5, 7.....Civil Engineering VII.
Farm Mechanics 5.....Agriculture VIII.
Thesis 3

SECOND TERM.

German 5, or.....German V.
French 5 .....French V.
Highway Construction 5, 7.....Civil Engineering VIII.
Farm Management 5.....Agriculture IX.
Thesis 3

THIRD TERM.

German 5, or.....German VI.
French 5 .....French VI.
Live Stock Management 5.....Agriculture X.
Thesis 3

Electives.

Steam Engines and Boilers 4.....Mechanical Eng. VII.
Agricultural Engineering 5, or .....Civil Engineering X.
Other Electives of Senior year 5.

COURSE IN HOUSEHOLD SCIENCE.

FRESHMAN YEAR.

FIRST TERM.

Algebra 5 ..... Mathematics I.
English Composition 5 ..... English I.
General History 5 ..... History I.
* { Freehand Drawing 1½, 3 ..... Drawing I.
  { Elocution 1, 2 ..... Elocution I.
General Hygiene ½, 1 ..... Household Science I.
Sewing 2, 4 ..... Household Science II.
Physical Culture 1½, 3 ..... Physical Culture I.

SECOND TERM.

Geometry 5 ..... Mathematics IVa.
English Composition 5 ..... English II.
*General History 5 ..... History II.
Elocution 1, 2 ..... Elocution II.
Freehand Drawing 1½, 3 ..... Drawing II.
Etiquette ½, 1 ..... Household Science III
Sewing 2, 4 ..... Household Science IV.
Physical Culture 1½, 3 ..... Physical Culture II.

THIRD TERM.

Geometry 5 ..... Mathematics Va.
Composition and Rhetoric 5 ..... English III.
Plant Morphology 5, 7 ..... Botany I.
*Freehand Drawing 2½, 5 ..... Drawing III.
Elocution 1, 2 ..... Elocution III.
Sewing 2½, 5 ..... Household Science V.
Physical Culture 1½, 3 ..... Physical Culture III.

*Latin or German may be elected instead, but no credit will be given towards graduation for less than the full course of six terms.

SOPHOMORE YEAR.

FIRST TERM.

General Chemistry 5, 7 ..... Chemistry I.
Plant Histology 5, 7 ..... Botany II.
Rhetoric 5 ..... English IV.
Dressmaking 2½, 5 ..... Household Science VI.
*Physical Culture 1½, 3 ..... Physical Culture IV.
Care of the Sick 2 ..... Household Science XV.

SECOND TERM.

*Floriculture 5 ..... Floriculture I.
History of Eastern Peoples 5 ..... History III.
General Chemistry 5, 7 ..... Chemistry II.
Rhetoric 4 ..... English V.
Dressmaking 2½, 5 ..... Household Science VII.
Physical Culture 1½, 3 ..... Physical Culture V.

THIRD TERM.

English Literature 5 ..... English VI.
Zoology 5, 7 ..... Zoology I.
Chemistry of Common Life ..... Chemistry XI.
Modern History 5 ..... History IV.
* Dressmaking 2½, 5 ..... Household Science VIII.

JUNIOR YEAR.

FIRST TERM.

Literature 5 ..... English VII.
Entomology 5, 7 ..... Zoology II.
Floriculture 5 ..... Floriculture II.
German 5, or, ... German I.
Latin 5 ..... Latin I.
Cookery 1½, 3 ..... Household Science IX.

SECOND TERM.

Plant Physiology 5, 7 ..... Botany III.
Literature 5 ..... English VIII.
German 5, or, ... German II.
Latin 5 ..... Latin II.
Vertebrate Anatomy 5, 7 ..... Zoology III.
Cookery 1½, 3 ..... Household Science X.
Physical Culture 1½, 3 ..... Physical Culture VI.

THIRD TERM.

Dairying 5, or, ... Agriculture V.
American Literature 5 ..... English IX.
German 5, or, ... German III.
Latin 5 ..... Latin III.
Physiology 5, 7 ..... Zoology IV.
American Politics 5 ..... Political Science II.
Cookery 3 ..... Household Science XI

Students desiring to elect thesis work in the department of chemistry must take Course V in chemistry during the third term of the Junior year.

SENIOR YEAR.

FIRST TERM.

Economics 5 ..... Political Science I.
Aesthetics 5 ..... Household Science XII.
German 5, or, ... German IV.
Latin 5 ..... Latin IV.

†*Electives.*

Literature 5 ..... English X.
Botany 5, 7 ..... Botany IV.
Zoology 5, 7 ..... Zoology V.
Bacteriology 5, 7 ..... Bacteriology I.
Elocution 1, 2 ..... Elocution IV.
Drawing 2½, 5 ..... Drawing IV.
Chemistry of Foods 5, 7 ..... Chemistry XII.
Geology 5 ..... Geology I.

SECOND TERM.

Psychology 5 ..... Mental Science I.
German 5, or, ... German V.
Latin 5 ..... Latin V.
Aesthetics 5 ..... Household Science XIII.

†*Electives.*

Physics 3, 7 ..... Physics I.
Physical Laboratory 2, 4 ..... Physics IV.
Chemistry of Foods 5, 7 ..... Chemistry XIII.
Zoology 5, 7 ..... Zoology VI.
Botany 5, 7 ..... Botany V.
Elocution 1, 2 ..... Elocution V.
Drawing 2½ 5 ..... Drawing V.
Bacteriology 5, 7 ..... Bacteriology II.
Literature 5 ..... English XI.

THIRD TERM.

Domestic Lectures 5 ..... Household Science XIV.
German 5, or, ... German VI.
Latin 5 ..... Latin VI.

† *Electives.*

Literature 5	English XII.
Physics 3	Physics II.
Physical Laboratory 2, 4	Physics IV.
Chemistry of Foods 5, 7	Chemistry XIV.
Zoology 5, 7	Zoology VII.
Botany 5, 7	Botany VI.
Elocution 1, 2	Elocution VI.
Drawing 2½, 5	Drawing VI.
Astronomy 5	Mathematics XI.
Bacteriology 5, 7	Bacteriology III.
Landscape Gardening 5	Floriculture IV.

† In addition to the regular studies seniors must select from the electives enough hours to form a full course of 22 hours, counting thesis 5 hours for last two terms.

COURSE IN MECHANICAL ENGINEERING

FRESHMAN YEAR.

FIRST TERM.

Algebra 5 ..... Mathematics I.
English Composition 5 ..... English I.
General History 5 ..... History I.
* { Freehand Drawing 1½, 3 ..... Drawing I.
  { Elocution 1, 2 ..... Elocution I.
Woodwork 2½, 5 ..... Shopwork I.
Military Drill 2½, 5 ..... Military I.

SECOND TERM.

Geometry 5 ..... Mathematics IV.
English Composition 5 ..... English II.
*General History 5 ..... History II.
Elocution 1, 2 ..... Elocution II.
Freehand Drawing 1½, 3 ..... Drawing II.
Woodwork 2½, 5 ..... Shopwork II.
Military Drill 2½, 5 ..... Military II.
Physical Culture 1, 2 ..... Physical Culture I.

THIRD TERM.

Geometry 5 ..... Mathematics V.
Composition and Rhetoric 5 ..... English III.
Modern History 5 ..... History IV.
*Freehand Drawing 2½, 5 ..... Drawing III.
Woodwork 2½, 5 ..... Shopwork III.
Military Drill 2½, 5 ..... Military III.

---

*Latin may be elected instead, but no credit will be given towards graduation for less than the full course of six terms.

SOPHOMORE YEAR.

FIRST TERM.

Trigonometry 5 ..... Mathematics VI.
Rhetoric 5 ..... English IV.
Mechanical Drawing 5, 10 ..... Mechanical Engineering I.
*Blacksmithing 2½, 5 ..... Shopwork IV.
Military Drill 2½, 5 ..... Military IV.

SECOND TERM.

Algebra 5 ..... Mathematics II.
Physics 3 ..... Physics I.
Physical Laboratory 2, 4 ..... Physics III.
Rhetoric 4 ..... English V.
*Mechanical Drawing 2½, 5 .... Mechanical Engineering II.
Blacksmithing 2½, 5 ..... Shopwork V.
Military Drill 2½, 5 ..... Military V.
Physical Culture 1, 2 ..... Physical Culture II.

THIRD TERM.

Algebra 5 ..... Mathematics III.
Physics 3 ..... Physics II.
Physical Laboratory ..... Physics IV.
English Literature 5 ..... English VI.
Mechanical Drawing 1½, 3 .... Mechanical Engineering III.
Blacksmithing 2½, 5 ..... Shopwork VI.
Military Drill 2½, 5 ..... Military VI.

‡JUNIOR YEAR.

FIRST TERM.

General Chemistry 5, 7 ..... Chemistry I.
*Literature 5 ..... English VII.
Analytical Geometry 5 ..... Mathematics VII.
Descriptive Geometry 5 ..... Mechanical Engineering V.
Machine Shop 2½, 5 ..... Shopwork VII.
Military Drill 2½, 5 ..... Military VII.
Military Science 1 ..... Military Science I.

SECOND TERM.

General Chemistry 5, 7 ..... Chemistry II.
Materials of Engineering 3 ... Mechanical Engineering XX.
*Descriptive Geometry 1½, 3 .. Mechanical Engineering VI.
Calculus 5 ..... Mathematics VIII.
Machine Shop 2½, 5 ..... Shopwork VIII.
Military Drill 2½, 5 ..... Military IX.
Military Science 1 ..... Military Science II.

THIRD TERM.

Mechanism 5, 7 ..... Mechanical Engineering IV.
Calculus 5 ..... Mathematics IX.
Steam Engines and Boilers 4, Mechanical Engineering VII.
American Politics 5 ..... Political Science II.
*Machine Shop 2, 4 ..... Shopwork IX.
Military Drill 2½, 5 ..... Military XI.
Military Science 1 ..... Military Science III.

‡Students wishing to specialize in electrical engineering may elect to do so at the beginning of the junior year.

SENIOR YEAR.

FIRST TERM.

Economics 5 ..... Political Science I.
Mechanics of Engineering 5, Mechanical Engineering VIII.
Physics 5, 7 ..... Physics V.
German 5, or, ... German I.
French 5 ..... French I.
Military Drill 2½, 5 ..... Military XII.
Military Science 1 ..... Military Science IV.

†*Electives.*

Literature 5 ..... English X.
Woodwork 2½, 5 ..... Shopwork X.
Ironwork 2½, 5 ..... Shopwork XI.
Mechanical Drawing 2½, 5 ..... Mechanical Engineering X.
Mineralogy 3, 6 ..... Mineralogy I.

SECOND TERM.

Psychology 5 ..... Mental Science I.
Mechanics of Engineering 5, Mechanical Engineering XII.
German 5, or, ... German II.
French 5 ..... French II.
Military Drill 2½, 5 ..... Military XIV.
Military Science 1 ..... Military Science V.

†*Electives.*

Literature 5 ..... English XI.
Structure of Woods and Metals 5, 7 ..... Botany XI.
Woodwork 2½, 5 ..... Shopwork XII.
Ironwork 2½, 5 ..... Shopwork XIII.
Mechanical Drawing 2½, 5 ... Mechanical Engineering XIII.
Assaying 3, 6 ..... Mineralogy IV.
Elocution 1, 2 ..... Elocution V.

THIRD TERM.

Mechanics of Engineering 5 . . Mechanical Engineering XIV.
German 5, or, ... German III.
French 5 . . . . . French III.
Military Drill 2½, 5 . . . . . Military XVI.
Military Science 1 . . . . . Military Science VI.

†*Electives.*

Astronomy 5 . . . . . Mathematics XI.
American Literature 5 . . . . . English IX.
Surveying 5, 9 . . . . . Civil Engineering IV.
Woodwork 2½, 5 . . . . . Shopwork XIV.
Ironwork 2½, 5 . . . . . Shopwork XV.
Mechanical Drawing 2½, 5 . . . Mechanical Engineering XVI.
Assaying 3, 6 . . . . . Mineralogy V.

† In addition to the regular studies seniors must select from the electives enough hours to form a full course of 22 hours, counting thesis 5 hours for last two terms.

GRADUATE YEAR.

FIRST TERM.

German 5, or ..... German I
French 5 ..... French I
Hydraulic Motors 3 ..... Mechanical Engineering XXI
Thermodynamics 5 ..... Mechanical Engineering IX
Experimental Engineering 2, 4 .... Mechanical Eng. XXIV

SECOND TERM.

German 5 or ..... German II
French 5 ..... French II
Machine Design 5, 7 .... Mechanical Engineering XI
Internal Combustion Engines 3 .... Mechanical Eng. XXII
Experimental Engineering 2, 4 .... Mechanical Eng. XXV

THIRD TERM.

German 5 or, ... German III
French 5 ..... French III
Machine Design 5, 7 ..... Mechanical Engineering XV
Power Plants and Transmis. of Power 3 .. Mech. Eng. XXIII
Experimental Engineering 2, 4 ... Mechanical Eng. XXVI

JUNIOR YEAR—ELECTRICAL.

FIRST TERM.

Electricity and Magnetism 6, 9...Electrical Engineering I.
Descriptive Geometry 5.....Mechanical Engineering V.
Analytical Geometry 5.....Mathematics VII.
General Chemistry 5, 7 ..... Chemistry I.
*Machine Shop 2½, 5 .....Shopwork VII.
Military Drill 2½, 5.....Military VII.
Military Science 1 .....Military Science I.

SECOND TERM.

Electricity and Magnetism 5, 7..Electrical Engineering II.
General Chemistry 5, 7 ..... Chemistry II.
*Descriptive Geometry 1½, 3..Mechanical Engineering VI.
Calculus 5.....Mathematics VIII.
Machine Shop 2½, 5.....Shopwork VIII.
Military Drill 2½, 5.....Military IX.
Military Science 1.....Military Science II.

THIRD TERM.

Calculus 5 .....Mathematics IX.
Electricity and Magnetism 3...Electrical Engineering III.
Steam Engines and Boilers 4.Mechanical Engineering VII.
American Politics 5.....Political Science II.
Mechanism 5, 7.....Mechanical Engineering IV.
Machine Shop 2, 4.....Shopwork IX.
Military Drill 2½, 5 .....Military XI.
Military Science 1.....Military Science III.

SENIOR YEAR.

FIRST TERM.

Economics 5	Political Science I.
Mechanics of Engineering 5	Mechanical Engineering VIII.
Alternating Currents and Dynamo Design 5, 7	Electrical Engineering IV.
German 5, or	German I.
French 5	French I.
Military Drill 2½, 5	Military XII.
Military Science 1	Military Science IV.

† *Electives.*

Literature 5	English X.
Woodwork 2½, 5	Shopwork X.
Ironwork 2½, 5	Shopwork XI.
Mechanical Drawing 2½, 5	Mechanical Engineering X.
Mineralogy 3, 6	Mineralogy I.

SECOND TERM.

Psychology 5	Mental Science I.
Mechanics of Engineering 5	Mechanical Engineering XII.
Alternating Currents and Dynamo Design 5, 7	Electrical Engineering V.
German 5, or	German II.
French 5	French II.
Military Drill 2½, 5	Military XIV.
MilitaryScience 1	Military Science V.

† *Electives.*

Woodwork 2½, 5	Shopwork XII.
Ironwork 2½, 5	Shopwork XIII.
Mechanical Drawing 2½, 5	Mechanical Engineering XIII.

†Assaying 3, 6 ..... Mineralogy IV.
Elocution 1, 2 ..... Elocution V.
Literature 5 ..... English XI.

THIRD TERM.

Mechanics of Engineering 5 .. Mechanical Engineering XIV.
Alternating Currents and Dynamo Design 5, 7 } .... Electrical Engineering VI.
German 5, or ..... German III.
French 5 ..... French III.
‡Military Drill 2½, 5 ..... Military XVI.
Military Science 1 ..... Military Science VI.

†*Electives.*

Astronomy 5 ..... Mathematics XI.
American Literature, 5 ..... English IX.
Surveying 5, 9 ..... Civil Engineering IV.
Woodwork 2½, 5 ..... Shopwork XIV.
Ironwork 2½, 5 ..... Shopwork XV.
Mechanical Drawing 2½, 5 ... Mechanical Engineering XIV.
Assaying 3, 6 ..... Mineralogy V.

† Students electing Assaying must have previously taken Mineralogy I.
‡ Seniors who accept commissions as cadet officers are required to drill during the third term.
In addition to the regular studies seniors must select from the electives enough hours to form a full course of 22 hours, counting thesis five hours for last two terms.

GRADUATE YEAR.

FIRST TERM.

German 5 or.....German IV
French 5.....French IV
Thermodynamics 5 .....Mechanical Engineering IX
Advanced Alternat. Cur. Theory 5, 7.. Electrical Eng. VII

SECOND TERM.

German 5 or.....German V
French 5.....French V
Machine Design 5, 7..... Mechanical Engineering XI
Advanced Alternat. Cur. Theory 5, 7..Electrical Eng. VIII

THIRD TERM.

German 5 or.....German VI
French 5.....French VI
Machine Design 5, 7.....Mechanical Engineering XV
Advanced Alternat. Cur. Theory 5, 7... Electrical Eng. IX

COURSE IN PHARMACY.

FRESHMAN YEAR.

FIRST TERM.

‡Algebra 5 ..... Mathematics I.
‡English Composition 5 ..... English I.
General History 5 ..... History I.
‡Latin 5 ..... Latin I.
Freehand Drawing 1½, 3 ..... Drawing I.
Elocution 1, 2 ..... Elocution I.
‡ † Military Drill 2½, 5 ..... Military I.

SECOND TERM.

Geometry 5 ..... Mathematics IVa.
‡English Composition 5 ..... English II.
‡Latin 5 ..... Latin II.
General History 5 ..... History II.
Freehand Drawing 1½, 3 ..... Drawing II.
Elocution 1, 2 ..... Elocution II.
‡Military Drill 2½, 5 ..... Military II.
‡Physical Culture 1, 2 ..... Physical Culture I.

THIRD TERM.

Geometry 5 ..... Mathematics Va.
‡Composition and Rhetoric 5 ..... English III.
‡Latin 5 ..... Latin III.
Plant Morphology 5, 7 ..... Botany I.
‡Military Drill 2½, 5 ..... Military III.

†Throughout the course young ladies take Physical Culture instead.

‡Students desiring to take a short course in Pharmacy will be given a certificate in Pharmacy after completing the studies marked (‡).

SOPHOMORE YEAR.

FIRST TERM.

‡General Chemistry 5, 7 ..... Chemistry I.
Rhetoric 5 ..... English IV.
German 5 ..... German I.
Plant Histology 5, 7 ..... Botany II.
‡Military Drill 2½, 5 ..... Military IV.

SECOND TERM.

Physics 3 ..... Physics I.
Physical Laboratory 2, 4 ..... Physics III.
Rhetoric 4 ..... English V.
German 5 ..... German II.
‡General Chemistry 5, 7 ..... Chemistry II.
‡Military Drill 2½, 5 ..... Military V.
Physical Culture 1, 2 ..... Physical Culture I.

THIRD TERM.

German 5 ..... German III.
Zoology 5, 7 ..... Zoology I.
‡Qualitative Analysis 5, 10 ..... Chemistry XV.
Physics 3 ..... Physics II.
Physical Laboratory 2, 4 ..... Physics IV.
‡Military Drill 2½, 5 ..... Military VI.

JUNIOR YEAR.

FIRST TERM.

Literatnre 5 ..... English VII.
‡Qnalitative Analysis 5 ..... Chemistry XVI.
‡Therapentics and Doses 2 ..... Pharmacy V.
‡Pharmacy 2 ..... Pharmacy II.
‡Nomenclatnre 1 ..... Pharmacy VI.
German 5 ..... German IV.
Military Drill 2½, 5 ..... Military VII.
Military Science 1 ..... Military Science I.

SECOND TERM.

‡Organic Chemistry 5, 7 ..... Chemistry XVII.
‡Pharmacognosy 2 ..... Pharmacy III.
Vertebrate Anatomy 5, 7 ..... Zoology III.
‡Pharmacy 3, 5 ..... Pharmacy IV.
Literatnre 5 ..... English VIII.
German 5 ..... German V.
Military Drill 2½, 5 ..... Military IX.
Military Science 1 ..... Military Science II.

THIRD TERM.

‡Qnantitative Analysis 5, 10 ..... Chemistry V.
Physiology 5, 7 ..... Zoology IV.
Plant Classification 5, 7 ..... Botany VII.
‡Pharmacognosy 2 ..... Pharmacy I.
‡Pharmacy 3, 5 ..... Pharmacy VII.
German 5 ..... German VI.
Military Drill 2½ 5 ..... Military XI.
Military Science 1 ..... Military Science III.

SENIOR YEAR.

FIRST TERM.

‡Materia Medica and Therapeutics 3 ..... Pharmacy VIII.
‡Operative Pharmacy 4, 6 ..... Pharmacy IX.
‡Pharmaceutical Analysis 5, 10 ..... Chemistry XVIII.
Bacteriology 5, 7 ..... Bacteriology I.
Military Drill 2½, 5 ..... Military XII.
Military Science 1 ..... Military Science IV.

SECOND TERM.

‡Materia Medica and Therapeutics 3 ..... Pharmacy XIV.
‡Prescription Practice 4½, 7 ..... Pharmacy X.
‡Pharmaceutical Analysis 5, 10 ..... Chemistry XIX.
Bacteriology 5, 7 ..... Bacteriology II.
Military Drill 2½, 5 ..... Military XIV.
Military Science 1 ..... Military Science V.

THIRD TERM.

‡Pharmacognosy and Synonyms 3 ..... Pharmacy XI.
‡Prescription Practice 5½, 8 ..... Pharmacy XV.
‡Toxicology 1 ..... Pharmacy XIII.
‡Pharmaceutical Analysis 5, 10 ..... Chemistry XX.
Bacteriology 5, 7 ..... Bacteriology III.
Military Drill 2½, 5 ..... Military XVI.
Military Science 1 ..... Military Science VI.

COURSE IN CIVIL ENGINEERING.

FRESHMAN YEAR.

FIRST TERM.

Algebra 5 ..... Mathematics I
English Composition 5 ..... English I
General History 5 ..... History I
*Freehand Drawing 1½, 3 ..... Drawing I
*Elocution 1, 2 ..... Elocution I
Woodwork 2½, 5 ..... Shopwork I
Military Drill 2½, 5 ..... Military I

SECOND TERM.

Geometry 5 ..... Mathematics IV
English Composition 5 ..... English II
*General History 5 ..... History II
Freehand Drawing 1½, 3 ..... Drawing II
Elocution 1, 2 ..... Elocution II
Woodwork 2½, 5 ..... Shopwork II
Military Drill 2½, 5 ..... Military II
Physical Culture 1, 2 ..... Physical Culture I

THIRD TERM.

Geometry 5 ..... Mathematics V
Composition and Rhetoric 5 ..... English III
Modern History 5 ..... History IV
*Freehand Drawing 2½, 5 ..... Drawing III
Woodwork 5 ..... Shopwork III
Military Drill 2½, 5 ..... Military III

*Latin may be elected instead, but no credit will be given toward graduation for less than the full course of six terms.

SOPHOMORE YEAR.

FIRST TERM.

General Chemistry 5, 7 ..... Chemistry I
Trigonometry 5 ..... Mathematics VI
Rhetoric 5 ..... English IV
*Mechanical Drawing 5, 10 ..... Mechanical Engineering I
Blacksmithing 2½, 5 ..... Shopwork V
Military Drill 2½, 5 ..... Military IV

SECOND TERM.

Physics 3 ..... Physics I
Physical Laboratory 2, 4 ..... Physics III
Algebra 5 ..... Mathematics II
General Chemistry 5, 7 ..... Chemistry II
*Mechanical Drawing 2½, 5 ..... Mechanical Engineering II
Surveying 5, 7 ..... Civil Engineering I
Military Drill 2½, 5 ..... Military V
Physical Culture 1, 2 ..... Physical Culture II

THIRD TERM.

Physics 3 ..... Physics II
Physical Laboratory 2, 4 ..... Physics IV
*Algebra 5 ..... Mathematics III
Surveying 5, 10 ..... Civil Engineering II
Qualitative Analysis 5, 10 ..... Chemistry XV
Military Drill 2½, 5 ..... Military VI

*Latin may be elected instead, but no credit will be given toward graduation for less than the full course of six terms.

JUNIOR YEAR.

FIRST TERM.

Surveying 3, 6 ..... Civil Engineering III
Analytical Geometry 5 ..... Mathematics VII
*Descriptive Geometry 5 ..... Mechanical Engineering V
Machine Shop 1½, 2½ ..... Shopwork VII
Geology 5 ..... Geology I
Military Drill 2½, 5 ..... Military VII
Military Science 1 ..... Military Science I

SECOND TERM.

Railroads 5, 7 ..... Civil Engineering V
Geology 5 ..... Geology II
*Descriptive Geometry 1½, 3 .. Mechanical Engineering XI
Calculus 5 ..... Mathematics VIII
Machine Shop 2½, 5 ..... Shopwork VIII
Military Drill 2½, 5 ..... Military IX
Military Science 1 ..... Military Science II
Materials of Engineering 3 ... Mechanical Engineering XX

THIRD TERM.

Calculus 5 ..... Mathematics IX
Steam Engines and Boilers 4 . Mechanical Engineering VII
*American Politics ..... Political Science II
Railroads 5, 8 ..... Civil Engineering VI
Military Drill 2½, 5 ..... Military XI
Military Science 1 ..... Military Science III

*Latin or German may be elected instead, but no credit will be given toward graduation for less than the full course of six terms.

SENIOR YEAR.

FIRST TERM.

German 5 or ..... German I
French 5 ..... French I
Mechanics of Engineering 5. Mechanical Engineering VIII
Highway Construction 5, 7 ..... Civil Engineering VII
Physics 3½, 7 ..... Physics V
Military Drill 2½, 5 ..... Military XII
Military Science 1 ..... Military Science IV

SECOND TERM.

German 5 or ..... German II
French 5 ..... French II
Highway Construction 5, 9 ..... Civil Engineering VIII
Psychology 5 ..... Mental Science I
Mechanics of Engineering 5 .. Mechanical Engineering XII
Military Drill 2½, 5 ..... Military XIV
Military Science 1 ..... Military Science V

THIRD TERM.

Mining Engineering 5 ..... Mathematics XV
German 5 or ..... German III
French 5 ..... French III
Mechanics of Engineering 5. Mechanical Engineering XIV
Masonry Construction and Foundations 5 ... Civil Eng. IX
Military Drill 2½, 5 ..... Military XVI
Military Science 1 ..... Military Science VI

GRADUATE YEAR.

FIRST TERM.

Roofs and Bridges 5, 7 ..... Civil Engineering XI
German 5 or ..... German IV
French 5 ..... French IV
‡Thesis 3; †Electives 5

SECOND TERM.

Roofs and Bridges 5, 7 ..... Civil Engineering XII
Sanitary Engineering 4, 7 ..... Civil Engineering XVI
German 5 or ..... German V
French 5 ..... French V
‡Thesis 3; †Electives 2

THIRD TERM.

Water Supply Engineering 5, 8 ... Civil Engineering XVII
German 5 or ..... German VI
French 5 ..... French VI
Contracts and Specifications 2 ... Civil Engineering XVIII
‡Thesis 3; †Electives 3

‡Subject for thesis to be chosen by student and approved by the head of the Department of Civil Engineering not later than October 1.

†To be selected from the Mechanical, Electrical or Mining Courses subject to the approval of the Professor of Civil Engineering.

‡ COURSE IN MINING.

FRESHMAN YEAR.

FIRST TERM.

†Algebra 5 ..... Mathematics I.
†English Composition 5 ..... English I.
†General History 5 ..... History I.
*Freehand Drawing 1½, 3 ..... Drawing I.
*Elocution 1, 2 ..... Elocution I.
†Woodwork 2½, 5 ..... Shopwork I.
†Military Drill 2½, 5 ..... Military I.

SECOND TERM

Geometry 5 ..... Mathematics IV.
†English Composition 5 ..... English II.
General History 5 ..... History II.
*Freehand Drawing 1½, 3 ..... Drawing II.
Elocution 1, 2 ..... Elocution II.
†Woodwork 2½, 5 ..... Shopwork II.
†Military Drill 2½, 5 ..... Military II.
†Physical Culture 1, 2 ..... Physical Culture I.

THIRD TERM.

Geometry 5 ..... Mathematics V.
†Composition and Rhetoric 5 ..... English III.
Modern History 5 ..... History IV.
*Freehand Drawing 2½, 5 ..... Drawing III.
Woodwork 5 ..... Shopwork III
†Military Drill 2½, 5 ..... Military III.

‡ Students desiring to take a short course in mining will be given a certificate in mining after completing the studies marked [†].

*Latin may be elected instead, but no credit will be given toward graduation for less than the full course of six terms.

SOPHOMORE YEAR.

FIRST TERM.

General Chemistry 5, 7 ..... Chemistry I.
Trigonometry 5 ..... Mathematics VI.
†Rhetoric 5 ..... English IV.
*Mechanical Drawing 5, 10 ..... Mechanical Engineering I.
†Blacksmithing 2½, 5 ..... Shopwork IV.
†Military Drill 2½, 5 ..... Military IV.

SECOND TERM.

Physics 3. ..... Physics I.
Physical Laboratory 2, 4 ..... Physics III.
Algebra 5 ..... Mathematics II.
General Chemistry 5, 7 ..... Chemistry II.
*Mechanical Drawing 2½, 5 ..... Mechanical Engineering II.
†Surveying 5, 7 ..... Civil Engineering I
†Military Drill 2½, 5 ..... Military V.
Physical Culture 1, 2 ..... Physical Culture II.

THIRD TERM.

Physics 3 ..... Physics II.
Physical Laboratory 2, 4 ..... Physics IV.
*Algebra 5 ..... Mathematics III.
Surveying 5, 10 ..... Civil Engineering II
Qualitative Analysis 5, 10 ..... Chemistry XV.
†Military Drill 2½, 5 ..... Military VI.

* Latin may be elected instead, but no credit will be given toward graduation for less than the full course of six terms.

JUNIOR YEAR.

FIRST TERM.

Surveying 3, 6 ..... Civil Engineering III.
Analytical Geometry 5..... Mathematics VII.
*Descriptive Geometry 5..... Mechanical Engineering V.
†Machine Shop 1½, 2½..... Shopwork VII.
†Geology 5..... Geology I.
Military Drill 2½, 5..... Military VII.
Military Science 1..... Military Science I.

SECOND TERM.

Metallurgy of Iron 5 ..... Metallurgy I.
†Geology 5..... Geology II.
*Descriptive Geometry 1½, 3... Mechanical Engineering XI.
Calculus 5..... Mathematics VIII.
†Machine Shop 2½, 5..... Shopwork VIII.
Military Drill 2½, 5 ..... Military IX.
Military Science 1..... Military Science II.

THIRD TERM.

Calculus 5 ..... Mathematics IX.
Steam Engines and Boilers 4..... Mech. Engineering VII.
*American Politics 5..... Political Science II.
†Mineralogy 5, 7 ..... Mineralogy I.
Military Drill 2½, 5 ..... Military XI.
Military Science 1..... Military Science III.

*Latin or German may be elected instead, but no credit will be given toward graduation for less than the full course of six terms.

SENIOR YEAR.

FIRST TERM.

†Mineralogy 5, 7 ..... Mineralogy II.
Mechanics of Engineering 5. Mechanical Engineering VIII.
Economics 5 ..... Political Science I.
German 5 or ..... German I.
French 5 ..... French I.
Military Drill 2½, 5 ..... Military XII.
Military Science 1 ..... Military Science IV.

SECOND TERM.

Mineralogy 5, 7 ..... Mineralogy III.
†Assaying 3, 6 ..... Chemistry IX.
German 5 or ..... German II.
French 5 ..... French II.
Mechanics of Engineering 5.. Mechanical Engineering XII.
Military Drill 2½, 5 ..... Military XIV.
Military Science 1 ..... Military Science V.

THIRD TERM.

Mining Engineering 5 ..... Mining Engineering XV.
†Assaying 3, 6 ..... Chemistry X.
Mechanics of Engineering 5.. Mechanical Engineering XIV.
German 5 or ..... German III.
French 5 ..... French III.
Military Drill 2½, 5 ..... Military XVI.
Military Science 1 ..... Military Science VI.

GRADUATE YEAR.

FIRST TERM.

German 5 or ..... German IV
French 5 ..... French IV
Physics 5 ..... Physics V
General Metallurgy 5 ..... Metallurgy I
Thesis 2.

SECOND TERM.

German 5 or ..... German V
French 5 ..... French V
Psychology 5 ..... Mental Science I
Special Processes 5 ..... Metallurgy II
Thesis 2.

THIRD TERM.

German 5 or ..... German VI
French 5 ..... French VI
Metallurgy of Iron and Steel 5 ..... Metallurgy III
Metallurgical Practice 5 ..... Metallurgy IV
Thesis 2.

LITERARY COMMERCE COURSE.

FRESHMAN YEAR.

FIRST TERM.

General History 5.....History I.
English Composition 5.....English I.
Commercial Arithmetic 5.....Arithmetic I.
Algebra 5.....Mathematics I.
Elocution 1, 2.....Elocution I.
Military Drill 2½, 5.....Military I.
Physical Culture 1½, 3.....Physical Culture I.

SECOND TERM.

General History 5.....History II.
English Composition 5.....English II.
Commercial Arithmetic 5.....Arithmetic II.
Geometry 5.....Mathematics IV.
Elocution 1, 2.....Elocution II.
Military Drill 2½, 5.....Military II.
Physical Culture 1½, 3.....Physical Culture II.

THIRD TERM.

Modern History 5.....History IV.
Composition and Rhetoric 5.....English III.
Commercial Arithmetic 5.....Arithmetic III.
Geometry 5.....Mathematics V.
Penmanship 3.....Penmanship I.
Military Drill 2½, 5.....Military III.
Physical Culture 1½, 3.....Physical Culture III.

SOPHOMORE YEAR.

FIRST TERM.

Bookkeeping 5	Bookkeeping I.
Latin 5 or	Latin I.
German 5	German I.
Rhetoric 5	English IV.
Penmanship 3	Penmanship II.
Floriculture 2, 3	Floriculture I.
Military Drill 2½, 5	Military IV.
Physical Culture 1½, 3	Physical Culture IV.

SECOND TERM.

Bookkeeping 5	Bookkeeping II.
Latin 5 or	Latin II.
German 5	German II.
Rhetoric 4	English V.
Penmanship 3	Penmanship III
Algebra 5	Mathematics II.
Military Drill 2½, 5	Military V.
Physical Culture 1½, 3	Physical Culture V.

THIRD TERM.

Bookkeeping 5	Bookkeeping III.
Latin 5 or	Latin III.
German 5	German III.
Penmanship 3	Penmanship IV.
Algebra 5	Mathematics III.
Physiology 5, 7	Zoology IV.
Military Drill 2½, 5	Military VI.
Physical Culture 1½, 3	Physical Culture VI.

JUNIOR YEAR.

FIRST TERM.

Bookkeeping 3.....Bookkeeping IV.
Latin 5, or, ...Latin IV.
German 5.....German IV.
English 5.....English VII.
Penmanship 3.....Penmanship V.
Stenography 4 .....Stenography I.
Typewriting 4 .....Typewriting I.
Military Drill 2½, 5 .....Military VII.
Military Science 1.....Military Science I.
Physical Culture 1½, 3.....Physical Culture VII.

SECOND TERM.

Bookkeeping 3.....Bookkeeping V.
Latin 5, or,.....Latin V.
German 5.....German V.
Penmanship 3 .....Penmanship VI.
Stenography 4.....Stenography II.
Typewriting 4.....Typewriting II.
English 5.....English VIII.
Military Drill 2½, 5.....Military VIII.
Military Science 1 .....Military Science II.
Physical Culture 1½, 3 .....Physical Culture VIII.

THIRD TERM.

Bookkeeping 3 .....Bookkeeping VI.
Latin 5, or,.....Latin VI.
German 5.....German VI.
Penmanship 3.....Penmanship VII
American Politics 5.....Political Science II.
Stenography 4.....Stenography III.
Typewriting 4.....Typewriting III.
Military Science 1.....Military Science III.
Military Drill 2½, 5 .....Military IX.
Physical Culture 2½, 5.....Physical Culture IX.

SENIOR YEAR.

FIRST TERM.

Economics 5 ..... Political Science I.
Commercial Law 3 ..... Commercial Law I.
English 5 ..... English X.
Aesthetics 5 ..... Household Science XII.
Military Science 1 ..... Military Science IV.
Military Drill 2½, 5 ..... Military X.
Physical Culture ¾, 1½ ..... Physical Culture X.

SECOND TERM.

Commercial Law 3 ..... Commercial Law II.
English 5 ..... English XI.
History of Eastern Nations 5 ..... History III.
Psychology 5 ..... Mental Science I.
Military Science 1 ..... Military V.
Military Drill 2½, 5 ..... Military XI.
Physical Culture ¾, 1½ ..... Physical Culture XI.

THIRD TERM.

Stenography 3 ..... Stenography IV.
Typewriting 2 ..... Typewriting IV.
Plant Morphology 5, 7 ..... Botany I.
English 5 ..... English IX.
Military Science 1 ..... Military Science VI.
Military Drill 2½, 5 ..... Military XII.
Physical Culture 2½, 5 ..... Physical Culture XII.

COURSE IN FORESTRY.

FRESHMAN YEAR.

Forestry I throughout the year.

FIRST TERM.

Algebra 5 ..... Mathematics I
English Composition 5 ..... English I
Bookkeeping 5 ..... Bookkeeping I
Woodwork 2½, 5 ..... Shopwork I
Freehand Drawing 2½, 5 ..... Drawing I
Declamation 2 ..... Elocution I
Military Drill 2½, 5 ..... Military I

SECOND TERM.

Geometry 5 ..... Mathematics IV
English Composition 5 ..... English II
Bookkeeping 5 ..... Bookkeeping II
Woodwork 2½, 5 ..... Shopwork II
Freehand Drawing 2½ ..... Drawing II
Declamation 2 ..... Elocution II
Military Drill 2½, 5 ..... Military II

THIRD TERM.

Geometry 5 ..... Mathematics V
Composition and Rhetoric 5 ..... English III
Plant Morphology and Ecology 5, 7 ..... Botany I
Woodwork 2½, 5 ..... Shopwork III
Breeds of Stock 5 ..... Agriculture I
Military Drill 2½, 5 ..... Military III

SOPHOMORE YEAR.

Forestry I throughout the year.

FIRST TERM.

Rhetoric 5 ..... English IV
Trigonometry 5 ..... Mathematics VI
Inorganic Chemistry 5, 7 ..... Chemistry I
Plant Histology 6 ..... Botany II
Sylviculture 1 ..... Forestry IV
Woodwork 2½, 5 ..... Shopwork IV
Military Drill 2½, 5 ..... Military IV

SECOND TERM.

Rhetoric 5 ..... English V
Inorganic Chemistry 5, 7 ..... Chemistry II
Surveying 10 ..... Civil Engineering I
Plant Physiology 6 ..... Botany III
Sylviculture 1 ..... Forestry IV
Woodwork 2½, 5 ..... Shopwork V
Military Drill 2½, 5 ..... Military V

THIRD TERM.

Qualitative and Technical Chemistry 5, 7 . Chemistry III, IV
Surveying 10 ..... Civil Engineering II
Plant Classification and Phyto-geography 6 .... Botany IV
Invertebrate 5, 7 ..... Zoology I
Sylviculture 1 ..... Forestry IV
Woodwork 2½, 5 ..... Shopwork VI
Military Drill 2½, 5 ..... Military VI

JUNIOR YEAR.

Forestry II throughout the year.

At the close of the third term all students report for assignment to "Summer Camp" work.

FIRST TERM.

German 5 or	German I
French 5	French I
Forest Entomology 5, 7	Zoology II
The Forest 2	Forestry V
Surveying 6	Civil Engineering III
Mechanical Drawing 2	Drawing IV
Typewriting 3	Typewriting I
Military Drill 2½, 5	Military VII
Military Science 1	Military Science I

SECOND TERM.

German 5 or	German II
French 5	French II
Vertebrate Anatomy 5, 7	Zoology III
Elements of Physics 5, 7	Physics I
Physiography 5	Geography I
Typewriting 3	Typewriting II
Military Drill 2½, 5	Military VIII
Military Science 1	Military Science II

THIRD TERM.

German 5 or	German III
French 5	French III
Physiography and Climatology 5	Geography II, III
Elements of Physics 5, 7	Physics II
Dendrology 5	Forestry VI
Soils and Waters 2½	Agriculture IV
Military Drill 2½, 5	Military IX
Military Science 1	Military Science III

SENIOR YEAR.

Forestry III throughout the year.
At the close of the third term all students report for assignment to "Summer Camp" work.

FIRST TERM.

German 5, or ..... German IV
French 5 ..... French IV
Economics 5 ..... Political Science I
Cryptogamic Botany 5, 7 ..... Botany V
Forest Finance 3 ..... Forestry VII
Elements of Geology 5 ..... Geology I
Military Drill 2½, 5 ..... Military X
Military Science 1 ..... Military Science IV

SECOND TERM.

German 5, or ..... German V
French 5 ..... French V
Technical; Forest By-products 5, 7 ..... Chemistry XXX
Plant Pathology 5 ..... Botany V
Forest Industries 5 ..... Forestry VIII
Psychology 5 ..... Mental Science I
Military Drill 2½, 5 ..... Military XI
Military Science 1 ..... Military Science V

THIRD TERM.

German 5, or ..... German VI
French 5 ..... French VI
American Politics 5 ..... Political Science II
Physiology 5, 7 ..... Zoology IV
Forest Economics 2½ ..... Forestry IX
Stock Breeding 4 ..... Agriculture VI
Enginery and Quarrying 4 . Mechanical Engineering XVII
Military Drill 2½, 5 ..... Military XI
Military Science 1 ..... Military Science VI

GRADUATE YEAR.

Forestry III throughout the year.

FIRST TERM.

Forest Policy and Protection 5 ..... Forestry XII
Road Construction 5, 9 ..... Civil Engineering VII
Timber Technology 5 ..... Forestry X
Original Investigation 5, 7 ..... Research I
Commercial Law 3 ..... Law I

SECOND TERM.

Technical Reading 5 ..... Language VIII
Highway Construction 5, 9 ..... Civil Engineering VIII
Industries and Commerce 5 ..... History VI
Lumbering 5 ..... Forestry XI
Original Investigation 5, 7 ..... Research II
Civic Actions 1 ..... Law II

THIRD TERM.

Technical Reading 5 ..... Language VII
Veterinary 5 ..... Agriculture IX
Original Investigation 5, 7 ..... Research III
Land Records 3 ..... Business III
Fish and Game 4 ..... Zoology V

DEPARTMENTS OF INSTRUCTION.

MENTAL AND POLITICAL SCIENCE.
AGRICULTURE.
HISTORY AND LATIN.
HOUSEHOLD SCIENCE.
MODERN LANGUAGES.
MECHANICAL AND ELECTRICAL ENGINEERING.
CHEMISTRY AND PHARMACY.
ENGLISH LANGUAGE AND LITERATURE.
MATHEMATICS AND ENGINEERING.
ZOOLOGY.
BOTANY AND FORESTRY.
ELOCUTION.
FLORICULTURE AND GARDENING.
HORTICULTURE.
BACTERIOLOGY.
DRAWING.
MILITARY.
PHYSICAL CULTURE.
MINING.
LITERARY COMMERCE.
MUSIC.

MENTAL AND POLITICAL SCIENCE.

THOMAS M. GATCH, A. M., PH. D.

Course I.—*Economics.*—Senior year; first term. During the first part of the term our aim is to familiarize the student with the principles of the science. The last part of the term is devoted principally to debates, informal discussions and theme work. Our library is well supplied with reference books in this department. Students are encouraged in original investigation. The labor question, socialism, taxation, money and tariff receive attention. Five hours a week. Laughlin, with Lectures.

Course II.—*American Politics.*—Junior year; third term. The construction of various articles and clauses of the Constitution of the United States has led to party differences. The Constitution can be best studied when taken in connection with the history of political parties. The study, thus conducted, approaches the laboratory method, the most practical and satisfactory of all methods, where it can be employed. It is of interest to the whole republic that young citizens should be able to learn that true national party differences have a history and a recognized basis of existence, and should be prevented from following factitious party differences, contrived for personal objects of selfish men. Five hours a week. Johnston's "History of American Politics," wlth lectures.

Course III.—*Psychology.*—Senior year; second term. This study presupposes a considerable acquaintance with the structure and functions of the brain and nervous system. Students acquire this knowledge in the laboratory under the direction of the professor of zoology. The intellectual faculties, the sensibilities and the will are carefully studied; the various schools of philosophy are criticised and compared and themes are often required from members of the class. Five hours a week. Lectures principally, with Buell's "Essentials" as a guide.

AGRICULTURE.

JAMES WITHYCOMBE, M. Agr., Professor of Agriculture.
F. L. KENT, B. Agr., Associate Professor of Agriculture.
W. J. KENT, Foreman.

The object sought throughout the entire agricultural course is to familiarize the student with the art and science of agriculture. This embraces the study of zoology, botany, chemistry and bacteriology, the sciences related to agriculture; and the supplementary studies of mathematics, economics, physics, history, language and other cultural branches, all of which broaden the course of study and tend to elevate the educated farmer to the intellectual level of other professions.

The college laboratories are strictly modern in their appointments and are supplied with the latest equipments, which afford the student unusual opportunities for making a thorough study of all the sciences related to agriculture.

While the theory of agriculture, as based upon the sciences, is taught, the industrial side is not overlooked. Instruction is given in wood and iron work in the carpenter and blacksmith shops under competent supervision. The student is also taught how to handle and care for steam machinery, and is made thoroughly familiar with the mechanism of the farm traction engine.

The instruction given in the class-room is directly supplemented by actual demonstrations of the best agricultural practice on the college farm, thus giving to the student an opportunity to observe the methods employed, and enabling him to note from time to time the results of the practical applications of science to agricultural methods.

The college and station farm consists of 220 acres, 140 of which are devoted to farm crops, pasture, and experimental purposes. The farm is equipped with dairy building, horse-barn, cattle-barn, silos, piggery, tool-house, engine-house, and with typical specimens of several breeds of stock.

Students laboring on the farm and in the gardens, receive from 12½ to 20 cents per hour. Only comparatively few persons can be so employed, as the amount of work to be done is limited. Those only who by their work prove to be valuable laborers will be employed.

DAIRYING.

One of the purposes of the Oregon Agricultural College is to advance the business industries of the state. It is believed that dairying is one of the most important lines of work that can now be undertaken in Oregon. There are large bodies of land in the state which are especially adapted to this industry. For this reason dairying has been introduced as a branch of study in the agricultural course. Modern laboratories have been provided for such instruction and fitted up with all the necessary machinery for carrying on the work in the most approved way. An expert dairyman is in charge of this work.

All students in the agricultural department will be required to study dairying not only as a science but as an art. Those taking the household science course will have the same opportunities as the agricultural students.

This is a line of practical work which, it is believed, will prove of great advantage both to the student and to the state. The practical instruction includes both butter and cheese making.

A short course has been provided, as described elsewhere in the catalogue, whereby practical instruction in dairying may be obtained by those who can not avail themselves of a college course.

The instruction in applied agriculture extends through the freshman, sophomore, junior and senior years, as shown in the following synopsis of courses:

Course I.—*Breeds of Stock.*—Freshman year; third term. The study of the history of the different classes of farm stock, their origin and characteristics. By means of charts, in the class-room the student is made familiar with the different points of animal form preparatory to the use of the score-card system for judging farm animals. This is followed by a practical application of this system in judging dairy cows, beef cattle, mutton sheep and swine. In this manner the student obtains useful information relative to animal form and function, and thus becomes acquainted with the points of excellence in the typical pure bred, as well as the points of merit in the animal designed for the butcher's block. Five hours a week. Brooks' "Agriculture," Vol. III.

Course II.—*Theoretical Dairying.*—Sophomore year; second term. The principles of modern dairy practice will be taught in the classroom. Instruction will be given by textbook and lectures. Five hours a week for one half term.—Snyder's "Dairy Chemistry."

Course III.—*Soils and Manures.*—Sophomore year; second term. The origin and formation of soils; soil tillage; management and application of manures; green manuring; organic and mineral manures; soil exhaustion; rotation of crops, and methods of improving worn-out soils. Five hours a week for one half term. Brooks' "Agriculture," Vol. I.

Course IV.—*Irrigation and Drainage.*—Sophomore year; third term. In the discussion of this subject it will be the aim to deal with those relations of water to soils and to plants which must be grasped in order to permit of a rational practice of applying, removing or conserving soil moisture in crop production. The subject will be considered from the standpoints of the farmer, the fruit grower and the gardener rather than from that of the engineer. The various methods of applying water; the laying out and construction of farm drains; and the effect of irrigation and drainage on the chemical and physical conditions of the soil will be considered. Five hours a week.

Course V.—*Dairying.*—Junior year; first term. (*a*) Practical work in the dairy for agricultural students. The principles taught in the sophomore year will be put into practice in the actual work of the manufacture of butter and cheese. The Babcock test, rennet tests, and curd tests, as well as the subjects of creamery accounting will receive due attention. Five hours a week.

(*b*) Practical work in the dairy for household science students. This work is essentially the same as above. Wing's "Milk and its Products" will also be used as a text during a portion of the term. Five hours a week throughout the third term.

Course VI.—*Stock Feeding and Breeding.*—Senior year; second term. Stock feeding covers the subject of rations for milk and meat production; how best balanced for economical feeding. Stock breeding covers the subjects of atavism, heredity, in-and-in-breeding, variation, prepotency and care of breeding animals. Opportunity is given for judging and scoring live stock, and for studying the essential points of

breeds adapted to different purposes. Four hours a week. Shaw, Animal Breeding.

Course VII—*Veterinary Science.*—Senior year; third term. This subject will be taught by lectures covering the anatomy of the horse, and taking up the diseases most common to domestic animals, giving causes, symptoms, and treatment for the same. Special stress is placed upon proper treatment to prevent disease in domestic animals. Five lectures a week. Reynold's "Veterinary Studies."

Course VIII.—*Farm Mechanics.*—Graduate year; first term. The location and arrangement of farm buildings, their cost and construction. The different kinds of fences, their cost, construction, and desirability. The construction, efficiency and durability of various field tools and machinery. Also a study of the principles involved in the operation of gasoline engines, windmills, pumps, feed cutters, grinders and other farm machinery operated by other power than horses.

Course IX.—*Farm Management.*—Graduate year; second term. A study of the different systems of diversified farming; the application of business methods to farm operations; division of the farm into fields, and crop management; executive and commercial problems on large and small farms; the management of farm help; number and character of live stock as affecting the economic management of the farm; relation of farming to other occupations; qualifications and requirements for the farm manager. Five hours a week.

Course X.—*Live Stock Management.*—Graduate year; third term. General management of the various classes of live stock, including a careful study of pedigrees of some leading families of the different breeds; requirements for advanced registration; comparative stock judging in groups,

similar to state and county fair work; also comparison of methods of handling live stock in various parts of the state, in various states and foreign countries. Five hours a week.

Instruction is given largely by lectures, suitable books being selected for reference. Miles' book on drainage. Curtis' "Horses, Cattle, Sheep, and Swine." Warfield's "Cattle Breeding," Stewart's "Stock Feeding." Armsby's Manual of Cattle Feeding. Shaw's "Study of Breeds." "Soil," King. "Physics of Agriculture," King. "Feeds and Feeding," Henry.

HISTORY AND LATIN.

J. B. HORNER, A. M., LITT. D., Professor.
GRACE GATCH, A. B., Assistant in Latin and History.

HISTORY.

Course I.—*Greek and Roman History.*—Freshman year; first term. Includes the study of general Hellenic development; the Athenian leadership; the Hellenistic or Alexandrian conquests and kingdoms. The political organizations of republican Rome in the prae- and post-Punic periods. Study of the pagan empire; Teutonic migrations. The Christian empire under Roman control. Five hours a week.

Course II.—*Mediæval History.*—Freshman year; second term. A study of social and political institutions of the fifth to the fifteenth centuries. Five hours a week.

Course III.—*History of Eastern Peoples.*—Sophomore year; second term. A survey of the history of China, Japan and India. Religion, arts and general culture of Egypt, Chaldæa, Assyria, Babylonia, Persia. Five hours a week.

Course IV.—*Modern History.*—Sophomore year; third term. This is a study of the era of the reformation and renaissance. (1453-1648). A general study of the age of Louis XIV., Frederick the Great, Anne and the Georges, Maria Theresa, and Peter the Great. The great French revolution and the wars of Napoleon. The states-general of 1789 to the congress of Vienna, 1815. German and Italian freedom and unity. Discussions touching the material progress of the age; famous works of art; foundations, inventions, discoveries, enterprises, improvements and investigations. Five hours a week.

Course A.—*U. S. History.*—A study from the foundations of American History to the Civil War.

Course B.—The Civil War and Reconstruction to the present Administration. Library work is required. Hart's "Essentials in American History."

The college is supplied with maps, charts, and a good working library of historical reference books.

In addition to the individual work of the student, as outlined above, lectures are given on the more important periods, such as the great reformation, thirty years' war, the English reformation, and the French revolution. Textbook, Myers' Ancient History in Courses I and III, Myers' Medæval and Modern History in Courses II and IV.

LATIN.

Course I.—Freshman year; first term. First eighty-five pages of Collar & Daniel's "First Year Latin," also synopsis of regular verb in each of the four conjugations.

Course II.—Freshman year; second term. Same textbook continued to page 151 with frequent reviews; also exercises in composition.

Course III.—Freshman year; third term. Irregular verbs. Conditional sentences. Periphrastic conjugation, etc. Caesar—Book II.

Course IV.—Sophomore year; first term. Caesar—Book I.—Roberts' edition. Allen & Greenough's Latin Grammar.

Course V.—Sophomore year; second term. Cicero's Orations. Allen & Greenough's Grammar.

Course VI.—Sophomore year; third term. Aeneid—Collar's edition. Allen & Greenough's Grammar.

If at any time there is a demand, classes desiring to pursue the study of Latin beyond Course VI may do so upon

making application. The first year's instruction is largely grammatical, prominence being given to Latin writing as the best method of acquiring a mastery of the language, Latin composition is eminently helpful in scientific research, and it is suggestive to the student of English. This preliminary work done, the student is then trained to appreciate the literature. Attention is called, during the reading of various authors, to those numerous problems in the history, thought and institutions of the Romans which illustrate similar phenomena noticeable among ourselves. The contribution of the Romans to the language, literature, and institutions of our time is so great that a thorough acquaintance with their life is of the highest educational value.

HOUSEHOLD SCIENCE.

MARGARET C. SNELL, M. D., Professor.
MARY SUTHERLAD, B. S., Assistant in Sewing.

Self interest and public interest make it apparent to every intelligent person how greatly in need are subjects pertaining to the home of being "touched to fine issues;" hence their introduction as studies into college curricula.

We have been reviled as "the most common schooled, and least cultivated, among all civilized nations," and this largely through our deplorable indifference to, and ignorance of, the common facts and necessities of life.

"The home as we find it to-day has scant warrant that anything born of its teaching is worth while to impart, yet the problem grows of how to get better results, how to lessen the labor of the farmer's wife, the washer-woman, the cook, the boarding-house keeper, the city missionary, the school teacher, the woman of fashion."

The solution requires something more than the knitting of the brow over theories; there must be actual testing of these theories by practice in the college laboratory, if they are to have value and permanence. The precious acquisition of the scholar who *knows*, must be further supplemented by that of the artist who *does*.

The various subjects pertaining to home life are taught under the following heads:

Course I.—*General Hygiene.*—Freshman year; first term. Good health is acknowledged as one of the prime factors of success in life; lectures and talks on this important subject are not neglected. The amenities of home, and readings on kindred topics, give mental occupation to the sewing hour. One hour a week.

Courses II, IV, V.—*Sewing.*—Freshman year. During the first term there are sewing lectures and practice work, one hour a day, on sewing samples. Here are acquired and strengthened those invisible impulses: industry, dexterity, patience, exactness. Five hours a week.

Second term, sewing continued. Five hours a week.

During the third term sewing is combined with the making of simple garments. Readings, conversation.

Courses VI, VII, VIII.—*Dressmaking.*—Sophomore year. Cleverness with scissors, tape line, and needle finds in dressmaking, millinery, home furnishing, a large field for the application of art principles to the living, moving canvas of actual life.

Instruction in dressmaking is an important branch of domestic science. Lectures will be given on the following subjects: The methods of manufacturing thread, cloths and other dressmaking material; hygienic principles of dressmaking; study and sketching of drapery; history of costume, etc.

During the first term the work includes draughting and making simple skirts, cutting, fitting and making lined waists from patterns; a study of the texture of goods. Five hours a week.

Throughout the second and third terms instruction is given in draughting and making lined waists, matching stripes and plaids, study of woolen textiles. Five hours a week. Home Sanitation and kindred topics one hour a week.

Courses IX, X, XI.—*Cookery.*—Junior year. The first term's work includes instruction in canning of fruits, one-half term; three lectures; one hour a week practice work in the kitchen laboratory; technological cookery; preparatory

work in chemistry of foods. Two hours a week. Laboratory fee, $1.50

The second term—practice in cookery, two hours per week, fee $1.50.

The third term—practice in cookery, two hours per week, fee $1.50

Course III.—*Etiquette.*—Freshman year; second term. Lectures and talks on social forms and usages; the art of entertaining.

Course XII.—*Aesthetics.*—Senior year; first term. Lectures and recitations on the subject of aesthetics. "Aesthetics," Day.

This term is given to the general subject of aesthetics in its relations to the subjective and objective world; the kinds and laws of beauty; class readings from various authors on aesthetics; the application of aesthetic principles to discourse as we find it illustrated in the great master pieces of literature. Five hours a week.

Course XIII.—*Aesthetics.*—Senior year; second term. Application of aesthetic principles to the remaining fine arts, with a study of the best authors on these varied subjects. The three arts receiving especial attention during the coming year will be discourse, architecture and painting. Five hours a week.

Course XIV.—*Domestic Lectures.*—Senior year; third term. The term's work will include lectures on the following subjects: Special hygiene, including parentage, care of children, heredity, etc.; sanitation of the home; home furnishing; emergency lectures; fireside practice, etc. Five hours a week.

Course XIV—Helen Campbell's "Household Economics," and Pomeroy's "Ethics of Marriage." Five hours a week must be given to reading aloud, in class room, the best literature. Lectures will be given on poultry raising and bee keeping.

GERMAN.

GERARD TAILLANDIER.

Opportunity to study German is offered throughout the different courses and is compulsory in the course in pharmacy during the sophomore and junior years. We teach in a large measure by the conversational method, and aim to bring the student so far that he can read with ease and facility, and understand so much of the language as will be most helpful to him in practical life. A knowledge of German is a business possession of undoubted value for any young man, or young woman.

Courses I, II, III.—*Elementary German.*—Collar's Eysenbach—German grammar; First German Reader, Muller and Wenckebach's Glück Auf. Hewett's German Reader.

Courses IV, V and VI.—*Advanced German*; Jagemann's German Syntax, Bronson's Colloquial German, Hewett's German Reader. Selection from Schiller's Dramas, Mosher's Willkommen in Deutschland. Selected prose works of modern writers.

Courses VII and VIII—Scientific German Reader. Works on scientific subjects.

MECHANICAL AND ELECTRICAL ENGINEERING.

GRANT A. COVELL, M. E., Professor.
EARL V. HAWLEY, B. S., Assistant.
M. CLYDE PHILLIPS, B. M. E., Instructor in Ironwork and Drawing.
MARK DOW MCCALLISTER, B. S., Instructor in Woodwork.
WILLIAM MACAULY PORTER, Instructor in Blacksmithing.

Students in this department are allowed to choose either the course in mechanical engineering or the course in electrical engineering. Each course leads to the degree of Bachelor of Science, and the two courses are identical until the beginning of the junior year.

The course in mechanical engineering is intended especially for young men who expect to choose an industrial vocation and for those who are already, or expect to be, connected with some of the manufacturing establishments of the country.

The course in electrical engineering is designed to meet the needs of those who desire to turn their attention towards electrical science, the designing, the installation and the management of electric light and power plants, etc.

The shops are well equipped with tools and machinery from the best makers in the country; the idea being not only to have the shops well supplied with the necessary tools but also to make each shop a model as regards quality of equipment and systematic arrangement.

The uses of the various tools in the shop are taught by a series of exercise pieces which the student is required to make. After completing the exercises, the regular work consists in building and repairing machinery in the machine shop, mending farm implements, and making tools in the blacksmith shop, and other useful articles in the wood shop. So far as possible, all work in the shops is executed from drawings and blue prints, which must be followed accurately.

In the drafting room the student begins with linear drawing and follows a progressive course until he is able to make complete working drawings of whole machines, and finally he is encouraged to produce designs of his own and to make complete drawings and blue prints of them.

The scientific principles involved in machines and mechanical movements are taught in the class-room, as well as the application of mathematics to problems in mechanical engineering. The student is required to solve original problems and to depend upon his own judgment and ingenuity as far as possible.

EQUIPMENT.

The machine shop is equipped with one 24″ x 24″ iron planer, one universal milling machine, one universal tool grinder, one radial drill, one 20″ drill press, one 20″ engine lathe, one 16″ engine lathe, five 14″ engine lathes, one 15″ shaper, one emery grinder, two 10″ speed lathes, twelve bench vises, and numerous small tools, such as hammers, chisels, drills, reamers, taps and dies.

The blacksmith shop contains twenty stationary forges operated by an electric motor fan. Each forge is provided with anvil, hammers and tongs. The shop also contains two vises, a swedge block and a full set of swedges, fullers, and heading tools.

The woodshop contains one 4″ four-sided moulder, one 24″ surface planer, one iron saw table with rip and cut-off saws, one band saw, one jig saw, one 20″ pattern-maker's lathe, one post boring machine, four 12″ wood-turning lathes, and twenty hand benches, each equipped with a set of tools consisting of saws, planes, chisels and other small tools. Power is supplied by a 10 horse power electric motor.

The power house is combined with the heating plant and contains one 54 inch and two 60 inch tubular boilers with pumps, injectors and feed water heater. The electrical equipment consists of two 12½ kilowatt direct current generators and one 30 kilowatt alternator, all driven by a 40 horse power, high speed, automatic engine. The direct current generators operate the motors in the several shops and laboratories, while the alternator furnishes lights for the College buildings and grounds.

The steam, electrical and heating plants of the college furnish opportunity for much valuable experimental work in engineering, such as tests of boilers, engines, dynamos, motors, fans, pumps and injectors. The department is supplied with indicators, gauges, planimeters and other instruments to facilitate this work.

A Riehle testing machine of 50,000 pounds capacity, operated by an independent motor, affords means of testing the strength of metals, woods, stones or brick.

The following is an outline of the work done in the mechanical department:

SHOPWORK.

Courses I, II and III.—*Woodwork.*—Freshman year. A course in woodwork which includes carpentery, joinery and wood-turning, also the care and use of tools. Five hours a week throughout the year.

Courses IV, V and VI.—*Blacksmithing.*—Sophomore year. In this course the student is taught how to make and manage a forge fire; to shape iron by bending, drawing, upsetting and welding, and finally to make and temper cutting tools for the shops. Five hours a week.

Course VII.—*Machine Shop.*—Junior year; first term.

This course is devoted principally to chipping, filing, polishing and hand work. Five hours a week.

Courses VIII and IX.—*Machine Shop.*—Junior year; second and third terms. These include a series of exercise pieces in turning, shaping, milling and drilling which the student is required to make from drawings. Five and four hours a week respectively.

Courses X, XII and XIV—*Woodwork.*—Senior year. These courses are elective and are intended for students who desire to specialize in this branch. Particular attention is given to the care and management of wood-working machines and to pattern-making. Five hours a week throughout the year.

Courses XI, XIII and XV.—*Ironwork.*—Senior year. These are elective courses and follow course IX. The work consists of constructing parts of machines, repair work, and making tools for the shops. Five hours a week throughout the year.

MECHANICAL ENGINEERING.

Courses I, II and III.—*Mechanical Drawing.*—Sophomore year. In these courses the student begins at once to make mechanical drawings of simple objects and finally makes sketches of machines from which working drawings are made. Ten hours, the first term; five hours the second term and three hours the third term.

Course IV.—*Mechanism.*—Junior year; third term. This course treats of the motion of machine parts, and is introductory to the course in machine design. Seven hours a week.

Courses V and VI.—*Descriptive Geometry.*—Junior year; first and second terms. The work in these courses is largely drawing. It involves the solution of problems in projection and intersection of lines, surfaces and solids. Five and three hours a week respectively.

Course VII.—*Steam Engines and Boilers.*—Junior year; third term. A study of the construction, care and operation of steam engines and boilers; recitations and lectures. Four hours a week.

Course IX.—*Thermodynamics.*—Graduate year; first term. Steam and other engines considered as heat engines. Five hours a week.

Courses VIII, XII and XIV.—*Mechanics of Engineering.*—Senior year. A course in applied mechanics. The first two terms are occupied with a discussion of statical and dynamical problems. During the last term the strength of materials is studied with special reference to beams, girders and trusses; also the mechanics of fluids relating to pressure, flow and carrying capacity of pipes and open ditches. Open only to those who have completed Mathematics VIII and IX. Five hours a week throughout the year.

Courses XI and XV.—*Machine Design.*—Graduate year; second and third terms. A course applying the principles brought out in the courses in mechanism and mechanics to the design and construction of machine parts. Numerous practical problems are solved, the data for many of them being taken from machines used in the college, so that the student may compare his results with those used in practice. Considerable draughting is done in connection with this course. Seven hours a week.

Course XX.—*Materials of Engineering.*—Junior year. A study of the materials used in engineering structures. Lectures and recitations upon the manufacture and physical properties of iron, steel, brick and cement, and their adaptability to the purposes of engineering construction. Timber and stone are also discussed with reference to their uses as materials of engineering. Three hours a week.

Course XXI.—*Hydraulic Motors.*—Graduate year; first term. Lectures and recitations on the leading types of turbines and other motors; also including centrifugal pumps. Three hours a week.

Course XXII.—*Internal Combustion Engines.*—Graduate year; second term. Lectures and recitations upon gas, gasoline and oil engines. Three hours a week.

Course XXIII. *Power Plants and Transmission of Power.* —Graduate year; third term. Lectures and recitations on the mechanical engineering of central power plants and power transmission. Three hours a week.

Courses XXIV, XXV and XXVI.—*Experimental Engineering.*—Graduate year. A course in mechanical laboratory work extending through the year.

During the Fall term the work consists in calibrating instruments and testing materials in tension, compression, flexure, torsion and shearing; also testing of oils and lubricants.

During the Winter term the work consists in calorimeter tests for determining the quality of steam, steam boiler tests to determine evaporative efficiency, steam engine tests with indicator and brake to determine horse power and mechanical efficiency; also tests of steam gauges, pumps and injectors.

In the Spring term dynamometer tests will be made to determine the power required to drive different machines under working conditions, as well as tests of fans, blowers and motors. Six hours a week.

PHYSICS.

Courses I and II.—*Elementary Physics.*—Sophomore year; second and third terms. These courses cover the usual topics of mechanics, heat, electricity and magnetism, sound

and light. Instruction is given by means of lectures and recitations. Three hours a week.

Courses III and IV.—*Elementary Laboratory Work.*—Sophomore year; second and third terms. These are laboratory courses required in conjunction with courses I and II. Students are required to perform a series of experiments in the laboratory, draw their own conclusions and submit a written report to the instructor. Four hours a week.

Course V.—*Physics.*—Senior year; first term. A laboratory course, which is a continuation of the preceding courses, and deals more especially with experiments in heat, light, sound and electricity. Six hours a week.

ELECTRICAL ENGINEERING.

Courses I, II and III.—*Electricity and Magnetism.*—Junior year; first, second and third terms. Dealing with the general theory of electricity and magnetism and their most common application; such as the telephone, telegraph, electro-plating, electric lighting, etc. Special attention is given to the study of the physical theory, actions and reactions in the armature, magnetic principles, and winding of continuous current dynamos and motors. Considerable time is spent in the calculation of low tension distributing systems. During the last term of laboratory work considerable time will be spent on the calibration and use of ammeters, voltmeters and wattmeters, and in running factory and laboratory tests on direct current dynamos and motors. Seven hours a week first and second terms; three hours a week third term.

Courses IV, V and VI.—(a) *Alternating currents.*—Senior year; first term. Being a brief development of the elemen-

tary theory of alternating currents, using both the graphical and analytical methods of calculation. A continuation of courses I, II and III. Open only to those who have completed Mathematics VIII and IX. Lectures and recitations. Three hours a week.

(b) *Dynamo Design.*—Second term.—Theory and practice of the design of direct and alternating current dynamos and motors, including calculation and construction of field magnets, armatures, commutators, etc. Lectures and recitations, supplemented by the making of models in the laboratory. Three hours a week.

(c) *Practical Electrical Engineering.*—Third term.—Considerable time will be devoted to practical engineering problems, such as the calculation of circuits, installation of lighting and power plants, power transmissions, etc. Three hours a week.

(d) *Laboratory.*—Systematic tests on alternators, synchronous motors, rotaries, transformers, and induction motors. Laboratory and factory methods of taking and recording results. Four hours a week throughout the year.

Courses VII, VIII and IX.—*Advanced Alternating Current Theory.*—Dealing with the theory of alternating current dynamos, motors, transformers, polyphase systems, long-distance line problems, etc. Courses I, II, III, IV, V, VI prerequisite. Seven hours a week throughout the year.

TEXT BOOKS.

Books.	Author.	Publisher.
Physical Laboratory Manual	Chute	D. C. Heath
High School Physics	Carhart & Chute	Allyn & Bacon
Technical Mechanics	E. R. Maurer	Wiley & Son
The Strength of Materials	Slocum & Hancock	Ginn & Co.
Descriptive Geometry	Ferris	Americ'n Book Co.
Machine Design, Part I	Jones	Wiley & Son
Electricity and Magnetism	Sylvanus Thompson	MacMillan
Dynamo Electric Machinery	Sheldon,	
Alternating Current Machines	Sheldon & Mason	Van Nostrand Co.
Elements of Electrical Engineering	Steinmetz	McGraw Pub. Co.

CHEMISTRY AND PHARMACY.

A. L. KNISELY, M. S., Professor.
JOHN FULTON, B. S., Associate Professor.
C. M. MCKELLIPS, PH. G., PH. C., Assistant Professor.
FRANK E. EDWARDS, B. M. E., Instructor.

EQUIPMENT.

The Department of Chemistry occupies the entire south wing of Agricultural Hall. The various laboratories, lecture and recitation rooms are equipped for thorough, accurate work.

On the first floor are located the storeroom for chemicals and apparatus, and the laboratory for general and qualitative chemistry. This laboratory is supplied with gas, water and sinks to accommodate 100 students. A series of hoods extend along one side of the laboratory so as to keep the air in the room free from noxious gases and fumes.

The laboratory for careful quantitative analysis is located on the second floor. This laboratory is completely equipped for the work intended. A chemical library and balance room joins this laboratory. The chemical department of the college is equipped with two torsion balances, two high grade assay balances and four analytical balances.

On the third floor is located the lecture and recitation room for general chemistry; this room is provided with raised seats and has a seating capacity for 150 students. The lecture table in this room is supplied with gas, water and electric wires of sufficient size for a stereopticon or electric furnace. On this floor are also two small recitation rooms, each capable of accommodating 20 to 25 students.

A dark room is available whenever work is being carried on with the polariscope or spectroscope.

One room on the third floor is available when the subject of gas analysis is being studied.

All recitation and lecture rooms are supplied with desks, gas and water so that at all times the instructor in charge can fully illustrate the subject under consideration.

CHEMISTRY.

The study of chemistry is begun in the first term of the sophomore year. Prerequisite, Freshman mathematics.

Course I.—*General Inorganic Chemistry.*—Non-metals.—Sophomore year; first term. A daily exercise throughout the first term is devoted to recitations, lectures and laboratory practice. In this course special attention is given to the fundamental principles of the science, which are suitably illustrated either by experiments performed by the student in the laboratory, or, when too intricate and expensive of time, by the instructor before the class in the lecture room. The elements are discussed individually as well as their more important compounds.

The *practicum* of this course consists of a series of laboratory exercises dealing with the elements studied and is designed to introduce the student to chemical manipulation. Seven hours a week.

Course II.—*General Inorganic Chemistry.*—Sophomore year; second term. The study of the metals is entered upon in the second term and is conducted similarly to the study of the non-metals. The more important metals are individually discussed under the following heads: history, occurrence in nature, properties, preparation, uses, tests, and compounds. Special attention is given to metals and their compounds which are of industrial importance.

The laboratory work of the second term consists of a study of the properties of the metals, being an introduction to qualitative analysis. This course must be preceded by Chemistry I. Seven hours a week.

Course XXV.—*Stoichiometry.*—A course in chemical arithmetic designed for students who take analytical chemistry. This course is given at irregular intervals.

Course IV.—*Agricultural Chemistry.*—Junior year; first term. This course deals with the more intimate relation of the science to agriculture. Such topics as soil composition, elements essential to plant growth, soil exhaustion, fertilizers; chemistry of cattle foods, nutrition, dairy products and food adulteration are dealt with as fully as time permits. Prerequisites, Chemistry I, II and III. Seven hours a week.

Course XXI.—*Agricultural Chemistry.*—Junior year; second term. This is a continuation of course IV and extends through the second term. Seven hours a week.

CourseV—*Elementary Quantitative Analysis.*—Junioryear; third term. The student is required to make the ordinary fundamental determinations of moisture, aluminum, calcium, magnesium, copper, lead, potash, sulfuric acid, phosphoric acid, chlorine, and carbonic acid by gravimetric processes; estimations by volumetric methods including alkalimetry, acidimetry, precipitation, and oxidation will be undertaken. The work is so planned as to familiarize the student with the standard gravimetric and volumetric methods. This is a required course for all pharmacy students and is elective for students who have completed chemistry I, II and XV. Ten hours a week.

Courses VI, VII, VIII.—*Advanced Quantitative Analysis.*—Senior year; first, second and third terms. A continua-

tion of course V. This work extends throughout the senior year and is arranged especially for students electing theses in the department of chemistry. Elective. Ten hours a week.

Course IX.—*Technical Analysis.*—Arranged for fifth year students, This course extends throughout the year, and consists of such subjects as gas analysis, iron and steel analysis; also the chemistry of manufacturing processes.

Prerequisites VI, VII, VIII.—Fifteen hours a week.

Course X.—*Technical Chemistry.*—Arranged for students in forestry. Consists of chemistry of various woods. Products of the destructive distillation of wood and kindred topics.

Prerequisite Course V. Ten hours a week.

Course XI.—*Chemistry of Common Life.*—Sophomore year; third term. This is a course treating of organic compounds of common life. This work is required of all students in household science course. Prerequisites chemistry I, II. Seven hours a week.

Courses XII, XIII and XIV.—*Chemistry of Foods.*—Senior year. An elective extending through the senior year in the household science course. It is an expansion of the work in course XI, but limited to a study of foods from a chemical and scientific standpoint. This work must be preceded by chemistry V. Seven hours a week.

Course XV.—*Qualitative Analysis.*—Sophomore year; third term. This course is designed for students in pharmacy, mining and agriculture. It gives practice in the analysis of unknown mixtures and chemical compounds for bases. Prerequisites chemistry I, II. Ten hours a week.

Course XVI.—*Qualitative Analysis.*—Junior year; Fall term. A continuation of course XV, consisting of analysis

of unknown mixtures and chemical compounds for acids and bases. Ten hours a week.

Course XVII.—*Organic Chemistry.*—Junior year; second term. This subject is designed for students of the pharmacy course. Prerequisites I, II, XV, XVI. Seven hours a week.

Courses XVIII, XIX, XX.—*Pharmaceutical Analysis.*—Senior year; first, second and third terms. This work consists of advanced qualitative and quantitative analysis, both organic and inorganic. Under this head are taken up the separation, identification and determination of the active constituents of alkaloidal drugs and galenical preparations. During the spring term practical laboratory work in Toxicology is given. Ten hours a week.

Course XXII.—*Soil Physics.*—Senior year; third term. The work will include a study of various types of soils as to their mechanical structure and analysis; of conditions influencing temperature, capillary action and water-holding capacity of soil; effects of drainage and cultivation upon the conservation of moisture in soils; the texture of soils; the use of fertilizers and amendments and their effects on soils. Class room and laboratory work, seven hours a week.

THESES.

Undergraduates desiring to elect theses in the department of chemistry and pharmacy must have passed in one course of quantitative analysis.

GRADUATE ELECTIVES.

Elective work in chemistry is offered as a major or a minor subject for two years to candidates for the degree of Master of Science.

Advanced Analysis.—This course is intended for those who may desire to specialize in chemical work. It provides a greater variety of analytical work than can be given in courses V, VI, VII, VIII. It offers the following: analysis of limestone, coal, iron ores, milk, butter, cheese, water, urine, sugar, and various other materials. A student desiring to investigate along any particular line, as mineral, sanitary, or agricultural chemistry, may do so. This course is open as a major subject to students who have completed courses I, II, III or XV and V, VI, VII and VIII. In addition, a parallel course of reading must be taken, upon which the student will be required to pass a satisfactory examination at the end of the year. The work of the last year will be left largely to the student's choice, subject to the approval of the head of the department, and will serve as the basis for a graduation thesis. Hours to be arranged with the instructor.

PHARMACY.

In addition to the ordinary equipment in constant use in the pharmaceutical laboratory—mortars, percolators, evaporation dishes, graduates, beakers, pilltiles, spatulas, etc., the department is supplied with suppository moulds, compressors, drug mills, tablet triturate moulds, cachet and soft capsule filling and sealing apparatus, pill machine, pharmaceutical stills, etc.

Courses I and III.—*Pharmacognosy.*—Junior year; second and third terms. In these courses are considered both the gross structure and characteristics of the crude drugs and chemicals. The student is taught the appearance, taste, color, odor, fracture and habitat of the various crude drugs, and also receives careful drill on their Latin and English names. Special attention is directed toward the learning of

the scientific classification of the vegetable drugs. The student has access to the specimens for study, and special effort is made to train the senses to the recognition of each of the drugs considered.

The pharmacognosy of the senior year consists in a thorough review of the work of the junior year and practice in the recognition of powders, liquids, chemicals, and pharmaceutical preparations. Two hours a week, Spring term.

Courses II, IV and VII.—*Pharmacy.*—Junior year. By means of a series of lectures and recitations during the first term, the student is made familiar with the nature and objects of the practice of pharmacy, as well as with the scientific principles underlying it. His attention is directed particularly to the various classes of Pharmacopœial preparations, beginning with those of the more simple character and gradually advancing until a thorough understanding is acquired concerning those of the most complex formulae.

Definitions are introduced wherever admissible, being supplemented by descriptive and theoretical considerations when necessary for a better understanding of the subject.

The work of the second and third terms is devoted largely to laboratory practice, during which time the student has ample opportunity for the practical application of the knowledge gained in the lecture room, and in the acquirement of pharmaceutical technique.

The preparations of the Pharmacopœia receive special attention, each student being required to make, independently, a sufficient number of these preparations to insure a thorough understanding of the processes and manipulations involved in their manufacture. Various unofficial preparations are also considered from time to time, especially those of the National Formulary.

The laboratory work is under the direct supervision of an experienced pharmacist and each student receives personal attention. The character of the instruction is such as will be of much practical benefit to the student in the subsequent event of his becoming a dispensing pharmacist. Two hours a week, first term, and five during second and third.

Course V.—*Therapeutics and Doses.*—Junior year; first term. The therapeutical uses of medicines serve as a basis for classifying them in a manner which will facilitate study. The definitions of medical terms are given special attention in the junior year. In this connection the student also learns the minimum and maximum doses of all remedial agents in active use in the modern practice of medicine. Two hours a week.

Course VI.—*Nomenclature.*—Junior year. In this connection the student is shown the practical application and use of the Latin language in the professions of medicine and pharmacy.

The Latin titles of the Pharmacopœia, National Formulary and the more common terms that occur in the prescription are made the subject of a series of recitations. One hour a week, first term.

Courses VIII and XIV.—*Materia Medica and Therapeutics.*—Senior year; first and second terms. All substances which find use in medicine are here studied one by one as to source, Latin and English names, formulae (in the case of chemicals), compounds and preparations, properties, method of preservation, industrial and domestic nse, impurities and adulterations, antidote (in case of poisons) and dose.

In the consideration of crude organic drugs, attention is especially directed to the constituents responsible for the

medicinal activity of the drug, e. g., alkaloids, glucosides, volatile oils, etc. Three hours a week.

Course IX.—*Operative Pharmacy.*—Senior year; first term. This course is a continuation of that of the junior year and includes such preparations of the Pharmacopœia and of the newer classes of remedies as were not considered in the junior year. Attention is given to the manufacture of the more difficult preparations, both galenical and toilet, and to the correct methods of manipulation involved in preparing medicines for dispensing in cachets, soft capsules, etc.

The composition of the more important Pharmacopœial preparations, and of the percentage strength of the active constituents of each, are made the subject of close study. The work of the term ends with a final review of the entire subject of pharmacy. Six hours a week.

Courses X and XV.—*Prescription Practice.*—Senior year. The recitation work consists of reading, interpreting, criticising prescriptions and calculating doses. During the third term a series of general quiz recitations is held. This is preparatory to the State Board examination. Special attention is given to incompatibilities and to the solubility of chemicals. Unsightly, dangerous and explosive mixtures are also considered under this head. In this laboratory course and that of operative pharmacy the student gains experience for the prescription counter, learning the difficulties there met with and how best to overcome them. He also gains in manipulative skill in making extemporaneous preparations.

Each student is required to personally perform the operations under the direct supervision of the instructor. The student works not from book prescriptions, but from prescriptions written in the ordinary practice of physicians and

found on file in the drug stores. Seven hours a week second term and eight hours a week third term.

Course XI.—*Pharmacognosy and Synonyms.*—Senior year; third term. The pharmacognosy of the senior year consists in a thorough review of the work of the junior year and practice in the recognition of powders, liquids, chemicals, and pharmaceutical preparations.

In addition to the knowledge of the scientific classifications of the medicines already considered up to this time, the student is further instructed regarding many "common names," or synonyms, in general use in the ordinary practice of pharmacy. Three hours a week.

Course XIII.—*Toxicology.*—Senior year; third term. The important active poisons—both mineral and vegetable—are studied. Their physiological action, characteristic symptoms that follow their use, treatment and antidote are noted and commented upon. Attention is directed to the conditions and regulations provided by the Oregon Pharmacy law for the handling and sale of poisons within the state. One hour a week.

From time to time special lectures are given on hygiene, pharmaceutical jurisprudence, etc.

STATE EXAMINATION AND REGISTRATION.

An item in the revised pharmacy law of this State, as enacted by the Oregon Legislature in its 1907 session, stipulates that a candidate for registration as assistant pharmacist, within the meaning of this law, must have had, previous to his taking the examination at the hands of the State Board of Pharmacy, three years of practical experience in a store where prescriptions and medicines are dispensed. The candidate for examination as a fully regis-

tered licentiate of pharmacy must have had four years of such experience.

The Oregon Board of Pharmacy, by special resolution, has agreed to accept time spent in the study of pharmacy at this college as the equivalent of that spent in the store, subject to the following provision: The student who completes the regular four years course and has one year of drug store experience to his credit, is eligible to take the senior examination, and he who completes the two years course and has one year of store experience to his credit, is eligible to take the junior examination at the hands of the State Board of Pharmacy.

The training in the pharmaceutical course is largely conducted in the laboratory for it is only by this means that the student can form an intimate personal acquaintance with the material and the best methods of manipulation. Thus it is that he receives systematic practice in dispensing, in the examination of drugs as to identity, purity, and strength, and in the manufacture of various preparations from crude drugs. The requirements of the U. S. Pharmacopœia are always kept in mind, and the student is always held strictly responsible for the purity of his preparations and the accuracy of his work. The course aims to teach students facts and principles of immediate use in the drug store, adapting the work to the needs of the practical pharmacist and manufacturing chemist. It is, however, further recognized that a thorough foundation must be laid for this work, and in view of this, two years of preparatory work are required in the college, or its equivalent in some other school. Students who have had equivalent work elsewhere can complete the course in pharmacy in two years.

EXPENSES IN CHEMISTRY AND PHARMACY.

Tuition is free at this institution, but to cover the cost of material used and wasted in the laboratories a small laboratory fee and a deposit for breakage will be charged in the chemical and pharmaceutical laboratories as is the custom in all institutions. These fees are payable each term strictly in advance.

Chemical laboratory: Courses I, II, III.

Material	$2.00
Deposit for breakage	1.00

Qualitative Analysis XV or Quantitative Analysis:

Material	$3.00
Deposit for breakage	2.00

Pharmaceutical Laboratory, per term:

Material	$3.00
Deposit for breakage	2.00

Laboratory work accompanying theses, per term:

Material	$3.00
Deposit for breakage	2.00

Text and reference books in chemistry: General Chemistry, Bradbury, Newell, Smith; Qualitative Analysis, Johnson and Prescott, Dennis and Whittlesey; Quantitative Analysis, Talbot, Smith and Cheever; Agricultural Chemistry, Johnson; Organic Chemistry, Remsen; Roscoe and Schorlemmer, Watt's Dictionary of Chemistry, Thorpe's Dictionary of Applied Chemistry, Thorpe's Industrial Chemistry, Wiley's Principles of Agricultural Chemistry; Fresenius, Crooke's Select Methods, Sutton's Volumetric Analysis, Stillman Engineering Chemistry; Technology of Paint and Varnish, Sabin; Chemistry of Manufacturing Processes, Blount and Bloxam; Food Inspection and Analysis, Leach; Microscopy of Vegetable Foods, Winton; Official Methods, etc.

Text and reference books in pharmacy and materia medica: Treaties on Pharmacy, Caspari; Practice of Pharmacy, Remington; Quantitative Analysis, Sturmer and Vanderkleed; Organic Analysis, Prescott; The Art of Compounding, Scoville; Hare's Therapeutics; Medical Chemistry, Bartley; Materia Medica, Culbreth; Morris, Hatcher and Sollmann, White and Wilcox; Sturmer's Pharmaceutical Arithmetic; U. S. Dispensatory; National Dispensatory; King's Dispensatory; U. S. Pharmacopœia; same, of Homœopathy; National Formulary; Medical Dictionary, Dorland; Pharmacognosy, Jelliff. Numerous other books and trade journals are to be found in the college library and are accessible to students.

NOTE.—Students from other institutions will be given advanced credit as follows:

Bradbury General Chemistry, or its equivalent	Two terms
Williams General Chemistry, or its equivalent	One term
Dennis and Whittlesey Qualitative, or its equivalent	Two terms

ENGLISH LANGUAGE AND LITERATURE.

F. BERCHTOLD, A. M., Professor.
IDA B. CALLAHAN, B. S., Assistant Professor.
HARRY BEARD, B. S., Instructor.
L. B. BALDWIN, A. M., Instructor.

English as a required study is found extending in most of our courses to, and including part of, the junior year. It is offered as an elective in two terms of the junior year, and in the senior year.

Courses S., B., F.—The course in preparatory English is designed to secure accuracy and freedom in expression. There is work in spelling, writing and simple grammatical constructions. Written exercises prepared under rules of form are constantly required, to obtain practice and secure confidence in expression. Whitney and Lockwood's English Grammar. "Kimball's Business Speller," "Elementary English Composition," "Practical Exercises in English," Huber G. Buehler. "Higher English", Reed and Kellogg.

It is well understood that the art of using one's native tongue correctly and forcibly is acquired for the most part through imitation and practice, and is not so much a matter of knowledge as of habit. To become familiar with good use, we must read the best literature; a student familiar with the best language of reputable writers and speakers will use good English without conscious effort. Indeed, good reading is indispensable to good speaking or writing; and rules and dictionaries are of little benefit without it.

Throughout the courses, therefore, there is required an amount of collateral reading equivalent to two books per term, or six per scholastic year. The student prepares

condensive abstracts of these books, and supplements this work by selecting and memorizing from each book six short quotations embodying general truths.

The books to be read and studied in the subfreshman year are: Defoe's "Robinson Crusoe;" Bunyan's "Pilgrim's Progress;" Hughes' "Tom Brown's School Days;" Edward Everett Hale's "The Man Without a Country;" Whittier's "Snow Bound;" Jack Condon's "The Call of the Wild".

Courses I, II, III.—*Composition and Rhetoric.*—Freshman year; first, second and third terms. Review of English grammar; review of punctuation. Daily practice in spelling. Description; narration. Collection of material for a theme. The study of words, the sentence, the paragraph. Figures of speech. The burden of these courses is description and narration. Extracts from classic literature are read and analyzed in class. Written reports are handed in, giving distinctive features in the description or method of movement in the narration. Short descriptions and narrations are written on demand in the class under limit. There are also constant recitations and exercises under grammatical rules and constructions to secure order and accuracy. The work, here as well as in all other courses in English, is done with a view to the increase of the student's vocabulary, and to develop ease and exactness of expression in his compositions. Brooks and Hubbard's "Composition—Rhetoric." Collateral reading. Books to be read and studied in the freshman year:

"The Sketch Book," Washington Irving.
"Sir Roger De Coverley," Joseph Addison.
"Silas Marner," George Eliot.
"The Merchant of Venice," William Shakespeare.
"Julius Cæsar," William Shakespeare.
"As You Like It," William Shakespeare.

Courses IV, V.—*Rhetoric.*—Sophomore year; first and second terms. This course is carried on co-ordinately with Baldwin's College Manual of Rhetoric. It emphasizes Criticism, Exposition and Argument.

A number of formal papers are required during the year. The subjects are assigned and the methods follow principles laid down by Baldwin, and Lockwood. Much attention is given to definition of terms and to making clear expositions of ideas contained in paper.

By way of review, many short exercises are also written under the simple fundamentals of composition and in study of sentence and paragraph structure. Collateral reading.

Course VI.—*English Literature.*—Sophomore year; third term. The long course of English literature necessitates the division of it into a number of periods marked by the presence of new and weighty influences. In each period there are a few writers that stand, by reason of their ability and enduring work, in positions of recognized preeminence. We aim to extend the study of the works of such writers —our classic authors—sufficiently far to include considerable fulness of biographical and critical detail.

Formative Period.—Chaucer, "Canterbury Tales:" Prologue and Knight's Tale.

First Creative Period.—Spencer, "Faerie Queene." Cantos I and II. Bacon, Essays. Shakespeare, "Hamlet," "King Lear," "Macbeth." Collateral reading.

Courses VII and VIII.—*English Literature.*—Junior year; first and second terms. Civil War Period: Of Milton's minor poems: "L'Allegro" and "Il Penseroso." The Restoration: Dryden, selections. Queen Anne Period: Addison. Pope, selections. Age of Johnson: Burns, selections. Goldsmith, "The Deserted Village." The Nineteenth Cen-

tury: Scott, Byron, Wordsworth, Tennyson. Selections from each. Collateral reading.

Courses IX and X.—*American Literature.*—Junior year; third term, and senior year, first term. A study of the leading periods and principal writers of American literature, with particular emphasis of what is usually termed the First National Period, representing such authors as Irving, Cooper, Bryant, Poe, Emerson, Hawthorne, Longfellow, Lowell, Whittier and Holmes. Collateral reading as in other courses in English.

Courses XI and XII.—*Elective Courses in English Literature.*—Senior year; second and third terms. A critical study of three or four representative plays of Shakespeare and selections from Macaulay, Carlyle, Rusking, Wordsworth, Tennyson and Browning. Papers on assigned topics and reports upon collateral reading are required throughout the courses.

MATHEMATICS, CIVIL AND MINING ENGINEERING.

GORDON V. SKELTON, C. E., Professor.
CHARLES L. JOHNSON, B. S., Assistant Professor.
NICHOLAS TARTAR, Instructor.
HARRY BEARD, B. S., Instructor.

MATHEMATICS.

The course in Mathematics includes 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.

That the study may to the fullest extent strengthen and discipline the mind for connected, logical thought, thoroughness and accuracy are insisted upon at all times. In the class-room all principles and demonstrations must be presented in an orderly and logical manner. The constant aim is to cultivate the powers of insight, judgment, and originality.

Course I—*Algebra.*—Freshman year; first term. From quadratic equations on. This course is open to students who have completed the sub-freshman work and to new students who can satisfy the department that they are prepared for the work. A review of about ten days will be devoted to the topics that precede quadratic equations. Five hours a week.

Course II—*University Algebra.*—Sophomore year; second term. From ratio and proportion to theory of numbers. This course is open to all students who have successfully passed course I. Five hours a week.

Course III—*University Algebra.*—Sophomore year; third term. Form the theory of numbers on. This course is open

to students who have had courses I and II or their equivalent. Five hours a week.

Course IV—*Plane Geometry*—Freshman year; second term. This course includes all that is found in the first four books of plane geometry in any standard text, as Wentworth's. Special emphasis is laid upon definitions and principles. Original demonstrations are given and much time is devoted to "original" theorems and problems and at all times proofs and demonstrations are freely criticised and discussed in the class-room. Five hours a week.

Course V—*Plane, Solid and Spherical Geometry.*—Freshman year; third term. This course includes book V of plane geometry and all of solid and spherical geometry. Students must have had course IV before taking this. Five hours a week.

Course VI—*Trigonometry.*—Sophomore year; first term. Students must have had courses I, IV and V before taking this. Only enough time is given to spherical trigonometry to enable the student to solve the spherical triangle. Much time is devoted to practical triangulation and measurements. The department is supplied with all the necessary instruments which the students use under the direction of the instructor. Five hours a week.

Course VII—*Plane Analytical Geometry.*—Junior year; first term. This work is required of all students taking the mechanical, electrical, mining and civil engineering courses. The work embraces the subjects treated in Ashton's Analytic Geometry. Five hours a week.

Course VIII—*Differential Calculus.*—Junior year; second term. This course is required of the same students as is course VII. Among the topics considered are differentiation and applications, evaluation of indeterminate forms, ex-

pansion of functions, Taylor's and Maclaurin's theorems, maxima and minima, points of inflection, curvature, change of independent variable, functions of two or more variables, asymptotes, curve tracing, etc. Five hours a week.

Course IX—*Integral Calculus.*—Junior year; third term. Among the topics considered are direct integration, definite integrals and applications, integration of rational fractions, integration by rationalization, integration by parts, integration of trigonometric forms, etc.; applications to finding the lengths and areas of curves, surfaces and volumes of solids of revolution, etc.; double and triple integration and applications. In this course, as in course VIII, great stress is laid upon practical applications, and a large number of practical problems are solved. Five hours a week.

Course XI.—*Astronomy.*—Senior year; third term. That this most elevating and refining subject may be open to a greater number of students, it will be confined to descriptive astronomy and may be taken by students who have completed courses I to V, inclusive. Much time will be devoted to uranography. Five hours a week.

CIVIL AND MINING ENGINEERING.

Course I.—*Plane Surveying.*—Sophomore year; second term. This course includes recitations, lectures, field and office work in the theory and practice of plane surveying. Proper emphasis will be given to chain and tape surveying. The theory and construction of the different surveying instruments are studied and practice will be given in making their tests and adjustments. The United States public land surveys and land laws are studied. Form of field notes, method of balancing and plotting surveys, computing area, etc., will have due consideration. Students must have had

Courses in Mathematics from I to VI, inclusive, and Mech. Eng. I, II and III, before taking this course. Three recitations and four hours office and field practice per week.

Course II.—*Plane Surveying.*—Sophomore year; third term. This course is a continuation of Course I, except that nearly the entire time will be spent in field practice making surveys, relocating lost corners, making surveys from given descriptions, subdividing land, city work, etc. Students must have had Course I before taking this. Ten hours per week.

Course III.—*Topographical Surveying.*—Junior year; first term. This course will include the execution of a complete topographical survey of a selected tract, including the office work such as the calculations, checks, platting and finishing the map. Prerequisites Courses I and II. Six hours per week; mainly field and office.

Course IV.—*Plane Surveying.*—Spring term; Junior year. This course is a condensation of Courses I and II and is designed for students pursuing the Agricultural course and for those of the Mechanical and Electrical courses who desire to elect it. The greater part of the time is spent by the student in the field with the various instruments. He is required to make surveys from descriptions given him as well as to write descriptions from surveys made by himself. In all cases notes must be carefully kept and worked up in the office.

Course V.—*Railroads.*—Junior year; second term. The theory of curves including the transition curve, earthwork computations, economic location, maintenance, etc. Three recitations and four hours office and field practice.

Course VI.—*Railroads.*—Junior year; third term. This course is a continuation of Course V and must be preceded

by it. During this term the reconnaissance and location of a line several miles in length will be made and maps and profiles constructed and estimates, etc. formed. The field work will be arranged as far as possible for Saturdays. Two hours recitation and six hours field and office.

Course VII.—*Highway Construction.*—Senior year; fall term. This course includes a consideration of the elementary principles of location, construction and maintenance of roads including a consideration of the materials used in road and street building. Three hours recitation and four hours office and field.

Course VIII.—*Highway Construction.*—Senior year; winter term. Continuation of Course VI. This course will include the surveys, location, estimates of cost and preparation of plans, specifications and contract for a section of road involving the usual engineering difficulties. One hour recitation and eight hours office and field.

Course IX.—*Masonry Construction and Foundations.*—Senior year; third term. This course includes a consideration of stone, brick, lime and cement, and estimates and specifications for their use, also the theory of the arch, retaining walls and foundations of various classes. This course must be preceded by courses VIII and XII in mechanics and must be preceded by or accompany course XIV in mechanics. Five hours a week.

Course X.—*Agricultural Engineering.*—Senior year; third term. This course is open to students who have completed course IV. Instruction will be given in designing, locating and constructing agricultural drainage systems; laying out farm buildings, etc. Five hours per week.

Course XI.—*Roofs and Bridges.*—Graduate year; Fall term. Both analytical and graphical methods will be ap-

plied to the determination of stresses in roof trusses under static and wind loads and in bridges under static and moving, concentrated and distributed load. Three hours recitations and four hours drawing and computing room.

Course XII.—*Roofs and Bridges.*—Graduate year; Winter term. This is a continuation of course X and will take up design of such structures. Courses X and XI must be preceded by Mechanical Engineering V, VI, VIII, XII and XIV. One hour recitation and six hours drawing and computing room.

Course XV.—*Mining Engineering.*—Senior year; third term. The subjects treated embrace preparatory and exploratory work, methods of mining, hoisting machinery, hoisting operations and conveyances, steam, water and electric power, underground traffic, pumping, ventilation, illumination, etc. Five hours a week.

Course XVI.—*Sanitary Engineering.*—Graduate year; Winter term. Drainage systems for populous districts including chemical and bacteriological purification of sewage, collection and destruction of garbage, street cleaning, etc. Prerequisites, courses I, II, III and VIII civil engineering, hydraulics and mechanical drawing. Two recitations and lectures and four hours computing and drawing room per week.

Course XVII.—*Water Supply Engineering.*—Graduate year; Spring term. Water supply for municipal and irrigation purposes, storage, purification, distribution and management of plant will be considered. Two hours recitation and six hours computing and drawing room. Prerequisites same as course XVI.

Course XVIII.—*Engineering Contracts and Specifications.*—Graduate year; Spring term. The general principals gov-

erning engineering contracts and specifications including preparation, careful criticism and study of several specifications and contracts in connection with courses V to XVIII. Two hours recitation and lectures per week.

TEXT BOOKS.

The New Business Arithmetic—Powers & Lyon.
Algebra—Essentials of Algebra; Wells.
Advanced Algebra—Hawkes.
Geometry—Plane and Solid Geometry (Revised Edition), Wentworth; Plane and Solid Geometry, Shutts.
Trigonometry—Plane and Spherical Trigonometry; Ashton & Marsh.
Analytic Geometry—Plane and Solid Analytic Geometry; Ashton.
Astronomy—Elementary Astronomy; Young.
Surveying—Johnson, Pence & Ketchum, Merriman & Brooks, Barton.
Railroads—Searles, Webb.
Mining Engineering—A Manual of Mining; Ihlseng.
Roofs and Bridges—Merriman & Jacoby.
Sanitary Engineering—Folwell.
Water Supply Engineering—Folwell.
Contracts and Specifications—Johnson.
Masonry Construction and Foundations—Baker, Patton.
Highway Construction—Byrne.

ZOOLOGY.

A. B. CORDLEY, M. S., Professor.
J. C. BRIDWELL, B. S., Assistant.

The work in this department is designed to give the student that knowledge of biological laws which is to-day regarded as an essential part of a liberal education. It aims to create a growing interest in the study of our native birds, insects and other animals and their interrelations with one another, with native and cultivated plants and with rural life; to give a knowledge of the foundation facts of morphology and physiology on which depend many of the principles of scientific stock breeding and feeding, of veterinary science and of human physiology and hygiene; and above all from an educational standpoint, it aims to train the student's perceptive faculties, to teach him to see, and to do and to reason from observed facts.

The laboratories of the department occupy six rooms on the third floor of the agricultural building. They are well supplied with necessary apparatus including compound and dissecting microscopes, camera lucidas, eyepiece and stage micrometers, automatic microtomes, dissecting sets, dry and steam sterilizers, incubators, reagent sets and numerous smaller articles, all of which are for the use of students.

For the purpose of illustration there are in addition to the general museum and the entomological collection a set of the celebrated Leuchart zoological charts, enlarged dissectable models of the human ear, eye, heart, brain and larynx and a large series of microscopic mounts.

The general museum, which occupies the main part of the fourth floor of the agricultural building, also contains a small but typical collection of mounted mammal skins; a splendid collection of mounted native birds; a collection of bird skins from Alaska; a collection of more than one hundred species of eggs of native birds; a small collection of fishes and reptiles; a considerable number of marine invertebrates, including a small but beautiful collection of Philippine shells; a small but interesting collection of skulls and disarticulated and articulated skeletons; and the largest collection of Oregon insects in existence.

Course I.—*Invertebrate Zoology.*—Sophomore year; third term. A course devoted principally to the morphology, physiology and ecology of invertebrates. Particular attention is given to the study of the single celled forms since it is believed that the student can thus best gain an insight into the structure and physiological activities of the higher animals. Some of the types studied are the amœba, paramœcium, vorticella, sponge, hydra, starfish, crawfish, earthworm, mussel and grasshopper. Required in the agricultural, household science and pharmacy courses. Seven hours a week. Laboratory deposit, $3.00.

Course II.— *Entomology.*— Junior year; first term. A study of the structure, classification and habits of insects, with particular reference to those which are beneficial or injurious. Instruction is given in methods of collecting and mounting insects and in studying their life-histories and in the preparation and use of insecticides. Required in the agricultural, household science and literary commerce courses. Prerequisite, course I. Seven hours a week. Laboratory deposit, $1.00.

Course III.—*Vertebrate Zoology.*—Junior year; second

term. A course devoted principally to the morphology and physiology of vertebrates. A careful comparative study is made by dissections of several vertebrate types, particular attention being given to the Guinea pig as a type of the mammalia. The relation of function to structure is kept constantly in mind throughout the course which thereby becomes valuable as an introduction to the study of human physiology and veterinary science. Required in the agricultural, household science, pharmacy and literary commerce courses. Seven hours a week. Prerequisite, course I. Laboratory deposit, $3.00.

Course IV.—*Physiology.*—Junior year; third term. A course in human physiology designed for students having a knowledge of general biology and of vertebrate anatomy. The student should also possess some knowledge of chemistry and physics. Required in courses in agriculture, household science, pharmacy, business and literary commerce. Seven hours a week.

Course VI.—(*a*) *Evolution.*—Senior year; first term. A course of lectures and collateral reading on organic evolution; covering such topics as the evolution of evolution, variation, struggle for existence, heredity, etc. Prerequisites, courses I and III. Two hours a week. Elective.

(*b*) *Systematic Zoology.*—A discussion of the principles of zoological classification with particular reference to species of economic importance. Prerequisites, courses I and III. Three hours a week. Elective.

(*c*) *Advanced Entomology.*—A laboratory study of some restricted group of insects, of some particular species of economic importance, or of the insects affecting some particular crop. In this course students have free access to the collections and the library and records of the experiment

station. The course extends throughout the year. Prerequisites, courses I and II. Seven hours a week. Elective.

Course VII.—(*a*) *Histology.*—Senior year; second term. A course of laboratory practice in fixing, hardening, imbedding, sectioning, staining, mounting and studying the tissues of the higher animals. Prerequisites, courses I and III. Seven hours a week. Elective.

(*b*) *Advanced Entomology.*—A continuation of course VI *c*.

Course VIII.—(*a*) *Embryology.*—Senior year; third term. Mainly a laboratory course in the study of the development of the frog and the chick, supplemented by a study of the general facts and principles of embryology. Prerequisites, courses I, III and VII *a*. Seven hours a week. Elective.

(*b*) *Advanced Entomology.*—A continuation of courses VI *c* and VII *b*. Seven hours a week. Elective.

TEXT-BOOKS AND REFERENCES.

Courses I and III.—Texts, "Animal Life," Jordan and Kellogg and "Animal Forms," Jordan and Heath. References, "Outlines of Zoology," Thompson; "Text-Book of Zoology," Parker and Haswell; "Text-Book of Comparative Anatomy," Lang; "Invertebrate Morphology," McMurrich.

Course II.—Text, "Insect Life," Comstock. References, "Manual for the Study of Insects," Comstock; "Insects Injurious to Fruits," Saunders; "Economic Entomology," Smith. Bulletins and reports of the various experiment stations and of the United States Entomologist.

Course IV.—Text, "The Human Mechanism," Hough and Sedgwick; References, "An American Text-Book of Physiology," Howell; "Practical Physiology," Sterling.

BOTANY AND FORESTRY.

EDWARD R. LAKE, M. S., Professor.

BOTANY.

The aim of the regular course in botany is to give the student such a working knowledge of plants and plant-life as will enable him to intelligently consider the various problems of vegetable life as found on the farm, and in the garden or forest.

The student is taught to observe plants; to become familiar with them through a working association; to ascertain by actual field-work and observation what plants do, and what relations they bear to each other, and to other forms of life.

The chief features of the work are field and laboratory exercises, supplemented by lectures and recitations. Text and reference books are used merely as guides, or for the purpose of furnishing suggestions to the end that the student may be enabled the better to make the field, garden, greenhouse and laboratory work the more effective.

The department has a good working equipment for the courses outlined. Individual sets, comprising dissecting and compound microscopes, laboratory glassware and other apparatus are supplied each student at a moderate rental fee. The collection of mounted and unmounted plants, especially rich in Oregon types, together with charts, models and preserved specimens furnish ample material for both regular and special advanced work in the several courses.

Course I.—*Plant Morphology.*—Freshman year; third term. Laboratory and field exercises, together with recitations. The gross structure of our common plants is the

main topic of this course. In the field-work particular attention is given to ecology—the plant in its relation to soil, air, water, light and the other plants that are associated with it. Incidentally germination, growth, fertilization and fructification are considered. Seven hours a week. Laboratory deposit, $1.00. Atkinson, College Botany; Bergen and Davis, Principles of Botany; Coulter, Plant Relations.

Course II.—*Plant Histology.*—Sophomore year; first term. Laboratory work with the dissecting and compound microscopes. The exercises of this course cover the minute structure of the higher plants, together with a brief consideration of the lower forms of plant life. Seven hours a week. Laboratory deposit, $2.50. Atkinson, College Botany; Coulter, Plant Structures; Strassburger and Hillhouse, Practical Botany.

Course III.—*Plant Physiology.*—Junior year; second term. Laboratory exercises and recitations. The subject is considered with special reference to the needs of the agriculturist and horticulturist. The principal part of the discussion is upon those phases of the subject that bear directly upon our cultivated crops. Seven hours a week. Pre-requisite, course II. Laboratory deposit, $3.00. Green, Vegetable Physiology; Sorauer, Physiology of Plants; McDougal, Plant Physiology.

Course IV.—*Plant Classification.*—Junior year; third term. This course is designed to meet the demands of the pharmacist for a working knowledge of plants in general. Much stress is laid upon field and laboratory work. Plant relationships, plant societies, regional types, plant products, the medicinal and poisonous species of our common plants, are some of the topics considered during this course. Required

in the course in pharmacy. Seven hours a week. Laboratory deposit, $1.50.

Course V.—*Plant Pathology and Hygiene.*—Senior year; first term. Laboratory and field work supplemented by lectures and recitations. The common fungous foes of the cultivated field, orchard and garden crops, together with the means of prevention and remedy are considered at length. Seven hours a week. Elective. References, Lodeman, Weed and Smith.

Course VI.—*Plant Products.*—Senior year; second term. Economic plants and their various preparations and uses. History, development, and distribution of the plants that furnish the world with its chief supply of material for food, shelter, clothing, fuel, medicine and the arts. Elective. Five hours a week.

Course VII.—*Systematic or Cryptogamic Botany.*—Senior year; third term. The work of this course is arranged to meet the needs of those electing it. In the systematic work, the student collects and classifies a hundred or more of the local plants, giving data as regards habitat, and distribution, and prepares a synopsis of the orders considered and species collected. Some time is also devoted to a study of current botanical literature.

In the cryptogamic work, the exercises are confined chiefly to a study of the comparative morphology of the fungi, algæ and other low forms of plant life. Seven hours a week. Elective. Laboratory deposit, $2.50.

Course VIII.—*Agrostology.*—Senior year; first term. A brief course designed to meet the needs of those students who desire to get a working knowledge of the more common forage grasses, particularly the local native and introduced species. The economic aspect of the subject so far as relat-

ing to culture and feeding value will be considered by the agriculturist. Students intending to select this course must make application before the close of the preceding term.

The laboratory deposits in courses I, II, III, IV and VII are required of all students, and are made to cover possible loss and breakage of apparatus used. At the close of each term such balance as may remain, is returned to the student. All deposits are required to be made in advance.

Course IX.—*Plant Evolution.*—Lectures and recitations supplemented by a study of types of both geologic and present day forms. The course traces the development of plants through the various periods of their existence as plastic organisms yielding to the world changes ever in progress, as factors in the world-building processes, and as organisms from which may be drawn lessons as to the significance of increased complexity in world activities. Scott, Fossil Botany; Campbell, The Evolution of Plants; Bailey, The Survival of the Unlike.

Course X.—*Plant Breeding.*—Lectures and recitations covering the history, progress and practical application of the laws of heredity, variation, pollination, hybridization, mendelism, mutation, as we understand them today as factors in the improvement of plants. Bailey, Plant Breeding; Survival of the Unlike; DeVries, The Mutation Theory.

FORESTRY.

The course in forestry is designed to meet the needs of those men who desire to enter the government forest service, or to fit themselves to care for the forest areas of private owners.

Course I.—*Club-work.*—The "Forest Club" meets twice

each month for the discussion of current forestry literature, magazine articles, news items, legislation, and general progress movements pertaining to forests, forest-service, forest-products, forest-industries, lumbering, and the lumber trade. First and third Fridays, each month, 7 p. m.

Course II.—*Club-work.*—In addition to work outlined in Course I, members of the third year class are required to take an active part in the affairs of the "Camera Club", an organization for the advancement of "camera craft". Besides the regular discussions of topics pertaining to lenses, cameras, camera outfits, plates, films, printing-papers, negatives, lantern-slides, transparencies and general technique, there will be occasional lectures on Art and Nature, artistic photographs, photographs for scientific purposes, photographic illustration, etc., etc., and frequent demonstrations of material and processes. First Thursday, each month, 7 p. m.

Course III.—*Club-work.*—In addition to the work of Courses I and II the members of the fourth year class will perform actual service in the "Rod and Gun Club," an organization having for its special field of work the study and promotion of all matters of moment pertaining to the game and fish interests of forest and field, game preserves, game-laws, game-breeding, game-protection, huntsmen's clubs, sportsmen's liabilities, and other pertinent topics. Second Friday, each month, 7 p. m.

Course IV.—*Sylviculture.*—Throughout second year. The principles of plant propagation; the structure, dissemination, germination, vitality, collection and preservation of tree seeds; seedbeds, seedage, cuttage, nursery-work, transplanting trees, pruning, thinning, pure and mixed plantings, nurse trees; forest reproduction by successive cuttings, selection, coppice.

Course V. — *The Forest.* — Third year; first term. The principles underlying the growth, development and maintenance of forest areas. The tree as a factor in forest types, and as a unit of vital force in the forest-crop. A brief outline of forestry in Europe, together with the history of the forestry movement in America, and its present status.

Course VI. — *Dendrology.* — Third year, third term. The study of trees from a taxonomic standpoint. Particular stress is put upon a study of those features which enable one to identify trees afield. The course includes lectures, laboratory and field work.

Course VII—*Forest Industries.*—Fourth year; second term. A discussion of the various industries depending upon the forests, together with the consideration of questions relating to improved ways of utilizing our forest crop.

Course VIII.—*Forest Finance.*—Fourth year; first term. The value of the forest: stability of investment, dividends on the investment; local problems in forest finance.

Course IX.—*Forest Administration.*—Fourth year; second term. General principles of effective administration, working-plans, estimation; methods of harvesting the crop; principles governing the execution of working-plans.

Course X.—*Forest Economics.*—Fourth year; third term. Taxation, tariff, transportation, markets, labor, organization, trusts, public welfare, commerce.

Course XI.—*Timber Technology.*—Fifth year; first term. Timbers as to strength, toughness, hardness, flexibility, grain, texture, etc., etc. Warping, swelling, density. The influence of these properties upon the market value of timbers; factors which determine the uses of various economic woods.

Course XII. — *Lumbering.* — Fifth year; second term.

Lumbering practices, utilization of waste, cutting, seasoning, commercial standards, bridge-stuff, framing, sheathing, finishing, lath, shingles; furnishing, as doors, sash, blinds, etc., etc. Grading lumber; markets and marketing.

Course XIII.—*Forest Policy and Protection.*—Fifth year; third term. Legislation for forest conservation, protection and renewal; National and State enactments regarding reserves, parks, water-sheds and irrigation.

The relation of the forests to National and State industries, statistics, protection against fires, trespass, insects, diseases, weeds and storms.

SUMMER CAMP.

All students in the regular course in forestry will be required to spend two sessions of eight weeks each during July and August of the junior and senior years in the forest. One session is required at Camp Reserve; a part of the other, at the option of the forester, may be spent in lumber camps, mills or factories. The objects of these summer sessions are two-fold; to give the student a practical working knowledge of the subject in hand, and to advance his technical training. In view of these ends the work of the summer session is diverse and is presented in two general ways,--lectures and field-work.

JUNIOR YEAR—LECTURES.

These are presented as a series of campfire talks and discussions covering the following topics:

1. Methods of field-work.
2. Forest transportation, trail and road construction.
3. Pack animals, selection, care and management.

4. Forest-service, duties of fire and game wardens, rangers, and other officers.
5. Forest physiography including field-geography, geology and plant distribution.
6. Timber cruising, mensuration.
7. Forest fires, prevention, fighting, remedies.
8. Grazing in forest areas.
9. Fish and game; hunting, trapping, fishing, breeding, etc.

WOODCRAFT.

This is a series of daily practical exercises in field forestry. The subjects with which the student will be required to have an actual working knowledge are: packs and packing; trail and road making; camp equipage; camp making; camp fires; water supplies; camp cooking; woodsmen's tools, their use and abuse; use and care of fire arms; dressing and preserving game; care of skins, furs, hides and pelts.

FIELD WORK.

Observations, general and special, geology, meteorology, hydrography, biology, dendrology, daily or weekly assignments, sylviculture, cruising, surveying, mensuration, records, charting, mapping, photographing.

TIME FACTOR IN CAMP SESSION.

JUNOR YEAR.—FELD WORK.

	Hours
Surveying	72
Mensuration	72
Dendrology	40
Sylviculture	40
Botany	20
Zoology	24
Entomology	20
Geology	24

OFFICE WORK.

Mapping and Charting.....32
Records..... 8

LECTURES.

Fish and Game..... 8
Forest Service.....12
General Topics.....12

SENIOR YEAR.—LECTURES.

Influence of Forests and Trees upon National Life.
Forest Laws.
Forest Policies.
Forest Management.
Forest Administration.
Forest Reserves, National and State Parks and their values.
The Forest as a health resort.

FIELD WORK.

Logging; transportation of timber; camp management, milling, pulping, distilling, utilizing waste, preserving timbers and lumber, working plans.

HORTICULTURE.

CLAUDE ISAAC LEWIS, M. S. A.

The aim of this department is to give the student as thorough a training as possible within the time allowed. The whole year is given up to a study of various phases of fruit growing. Not only are the principles studied, but their direct application to the conditions on the Pacific coast is considered. The work consists of lectures, laboratory practice, and field exercises, supplemented by reference readings from standard horticultural books and current horticultural bulletins. Standard horticultural periodicals are kept on file for student reference. To aid in making the work as practical as possible we have a station orchard containing many varieties of fruits, and also an experimental apple orchard of only one variety, which is conducted as a commercial orchard.

The courses are outlined below, but are not closely confined to the time limits given, as it is the aim to study the various problems at the times when practical work can be done, thus giving the student the opportunity to supplement the class-room exercises by work along these lines in the orchards. Ample opportunity is given students to work on Saturdays and other spare hours in the college orchard under trained directors.

Course I.—Senior year, first term. The first half of this term is given up to a study of the problems of harvesting, packing, storing, and marketing fruits, and is conducted chiefly in the orchard. Each student is required to be able to put up a commercial pack.

The second half of this term will be given up to a systematic study of fruits. The large collection on the station grounds, supplemented by fruit collected from other localities, offers to the student a splendid opportunity to make systematic studies of these fruits. Five hours a week.

Course II.—Senior year, second term. The work of this term will consist of a study of propagation, pruning, and such orchard management problems as choice of site, preparation of soil, tillage, irrigation, etc. Five hours a week.

Course III.—Senior year, third term. The first half of this term is devoted to a study of plant breeding. The remainder of the term will be devoted to problems of orchard management not studied in Course II. Five hours a week.

ELOCUTION.

HELEN V. CRAWFORD, B. S., Professor.

"There is one accomplishment, in particular, which I would earnestly recommend to you, Cultivate assiduously the ability to read well. Good reading is the natural exponent and vehicle of all good things. It seems to bring dead authors to life again, and makes us sit down familiarly with the great and good of all ages."

It is the purpose of this department to train the pupils to become thoughtful, intelligent, and agreeable readers. To give them the power to extract thought from the printed page, and by systematic drill both in physical culture and voice work to give them adequate vocal expression. To instill in the minds of pupils a love for good literature, and a genuine pleasure in interpreting and rendering the same.

Courses I and II.—*Elocution.*—Freshman year; first and second terms. Analysis and rendering. Voice culture, physical culture. Two hours a week. How to Speak in Public, Kleiser.

Course III.—*Elocution.*—Freshman year; third term. Voice culture, bodily expression, analysis and rendering. Two hours a week. How to Speak in Public, Kleiser.

Courses IV, V and VI.—*Advanced Elocution.*—Senior year; first, second and third terms. Voice culture, rhythmic movements, literary analysis and rendering. Elective. Two hours a week. How to Speak in Public, Grenville Kleiser.

Senior year.—Rhetorical exercises will be required second term of senior year.

FLORICULTURE, OLERICULTURE, AND LANDSCAPE GARDENING.

GEORGE COOTE, Professor.

Instruction in floriculture is given to the classes in household science. Floriculture is intended to acquaint students with the habits and requirements of the many hardy plants for outside decoration and also with the propagation and management of tropical and subtropical varieties. Thus students are enabled to acquire considerable insight into the proper care of greenhouses. In order that this plan may be carried into effect, lectures supplemented by practical work in the propagation, potting and care of plants, are regularly given in the classes.

Course I.—Sophomore year; second term. Propagation of spring and summer plants for adorning the home grounds.

Course II.—Junior year; first term. Propagation of soft wooded plants, care of greenhouse, propagation and care of winter flowering plants.

Course III.—Senior year; third term. Landscape Gardening is treated as a fine art. Introductorily the arts of design in general are discussed. Then are discussed the principles, aims and methods of artistic gardening. The principles, when once understood, are applied to the embellishment of home grounds, cemeteries, parks and highways.

Course IV.—Senior year; third term. Five acres set apart for the growing and testing of the leading varieties of all kinds of vegetables aid very materially in teaching the course given in Olericulture. In this course the student learns "How to Grow Vegetables."

LITERARY COMMERCE COURSE.

T. H. CRAWFORD, A. M., Professor.
HELEN L. HOLGATE, B. H. E., Stenography and Typewriting.
JUANITA ROSENDORF, B. S., Asst. in Stenography and Typewriting.

This course leads to the degree of Bachelor of Science. The requirements for entrance to this course are the same as those for entrance to any one of the Freshman years in any of the other courses. See page 23.

One of the most attractive features of this course is the prominence given to English. Every term in the entire four years—with but two exceptions—presents the subject of English, making this emphatically a literary course.

Along commercial lines, the subjects of book-keeping, stenography, typewriting and commercial arithmetic are made prominent in the sophomore, junior and senior years and in the junior and senior years commercial law, civics and economics are studied.

The subject of penmanship is taken up in the third term of the freshman year and made prominent every term until the close of the junior year.

In mathematics—in addition to commercial arithmetic—there are algebra and geometry, All the mathematics come in the first two years.

During the sophomore and junior years either Latin or German is studied continuously. In these years will also be found the subjects of history, aesthetics, and psychology.

A fee of $1.00 per month during term time will be charged for the use of the typewriting machines.

None but regular juniors and seniors in the course take stenography and typewriting.

BACTERIOLOGY.

EMILE F. PERNOT, M. S., Professor.

Within the last decade bacteria have laid a very strong hold on the thought and imagination of the scientific world, and have come to be looked upon as playing a most important part, not only in the production of disease and in fermentation, but also in many everyday processes hitherto supposed to be dependent on very different causes.

In consequence of this, bacteriology has been raised to the dignity of a science, and its ramifications have become so numerous and widespread that many of the other sciences, and even some of the arts, have been freely pressed into the service of one or the other of its branches.

The study of bacteriology has made great strides both in the pathological and the technical branches of the subject; and just as investigations into the physiology of higher plants gave the first impetus to the establishment of agricultural experiment stations in all countries; so, in like manner, the physiology of fermentation and technical bacteriology have called into existence, within the last few years, a number of stations and laboratories for the development of those branches of industry wherein micro-organisms play an important part.

This college has a well equipped bacteriological laboratory for the investigation and study of bacteriological diseases, both animal and vegetable.

The following courses of lectures and laboratory work have been added to the college curriculum as electives in the senior year:

Course I.—*Bacteriology.*—Senior year; first term. A course in the elements of bacteriology, including lectures, and laboratory practice in sterilizing, making culture media, inoculating and growing cultures, studying cultural characteristics of certain definite species of bacteria, mounting, staining and examining slides, classification.

Course II.—*Dairy Bacteriology.*—Senior year; second term. Study of the bacterial diseases of milk, bacteria in the dairy; study of bacteria in butter making and in cheese making; study of yeasts and ferments.

Course III.—*Bacteriology.*—Senior year; third term. Lectures and laboratory work in pathogenic germ diseases of stock and poultry; a study of vaccines, their manufacture and use; of the nitrifying bacteria in leguminous plants; of bacteria in the soil and the bacterial analysis of water.

Text-book used, "Essentials of Bacteriology," M. V. Ball.

REFERENCE BOOKS.

Manual of Bacteriology, Sternberg; Manual of Determinative Bacteriology, Chester; Bacteriology and Infective Diseases, Crookshank; Principles of Bacteriology, Abbott; Traite de Bacteriologie, Mace; Pathogenic Bacteria, McFarland; Ptomains, Leucomains, Toxins and Antitoxins, Vaughan & Novy; Micro-organisms and Disease, Klein; Microbes, Ferments and Moulds, Trouessart; The Hygienic Laboratory, Kenwood; Traite de Microbiologie, Duclaux; Pathological Histology, von Kahlden; Pathological Technique, Mallory and Wright; Clinical Diagnosis, Simon; Micro-organisms in Water, Frankland; Technical Mycology, Lafar; Bacteriology (Text and Atlas), Lehmann and Neumann; Micro-organisms and Fermentation, Jorgensen; Dairy Bacteriology, Von Freudenreich; Practical Studies in Fermentation, Hansen; Practical Bacteriology, Kanthack and Drysdale; Fungi and Fungicides, Weed; Bacteria and Their Products, Woodhead; the Methods of Bacteriological Investigation, Huppe; Agricultural Bacteriology, Conn. Publications of the Department of Agriculture.

DRAWING.

FARLEY D. MCLOUTH, B. S., Instructor.

Of the five senses, or gateways of knowledge, two, seeing and hearing, belong to the intellectual part of our nature, while the others chiefly supply our animal wants. The sense of seeing is at once the most active, the most comprehensive and the most intellectual of them all. It is the servant of the soul and through it we receive the richest ideas.

The chief aim of the course in drawing is to teach the student to see truly, to obtain quicker perceptions, and to develop a keenness of observation, accurate judgment and a concentration of the mind. Few among us see truly what we see and then only what we have been educated to see. While no teaching can make an artist in the full sense of the word, any more than the study of the forms and methods of poetry can make a poet, yet drawing, as surely as rhetoric, should form a part of a thorough education; for besides the general quickening of perception and the training of the eye to accuracy of sight, it affords the means of noting the forms of objects such as no written descriptions can secure. It affords a mode of expression second only to language itself.

In considering the study of drawing, its importance is too often lost sight of, and yet it may be safely said that not only is drawing a corner stone in the foundation of an industrial education, but of a scientific education as well. In engineering courses, for instance, a knowledge of drawing is one of the first requirements.

In the first and second terms of the freshman year the work is confined entirely to outline drawing, realizing that as an aid in other branches of study, careful outline is of more importance than shading. Exactness of outline and accuracy of proportions are the aim.

Course I. *The Elements of Drawing.*—Freshman year; first

term. The work includes the first principles of drawing and of freehand perspective, drawing from simple block casts. Lectures. Three hours a week.

Course II.—*The Elements of Drawing.*—Freshman year; second term. A continuation of course I, drawing from casts. Lectures. Three hours a week.

Course III.—*The Elements of Drawing.*—Freshman year; third term. Everything that is seen in the world around us presents itself to our eyes in an arrangement of spots or patches of different colors variously shaded, or patches of light and shade, and to this course III is shaped making a decided change. To one not having a knowledge of the work, it might seem as though it were carried far to the other extreme, for now we use no outlines at all, but work in patches or spots, and give our attention to areas and values of light and shade. The work is from casts of geometric figures and from simple still-life studies. Lectures. Three hours a week and course II continued two hours a week. In course III the engineering students are taken to the shops, where they make working drawings from parts of machinery, tools, etc.

Courses IV, V and VI.—*Advanced Drawing.*—Senior year. Facilities for advanced work are offered as an elective throughout the senior year. The work includes still-life, cast drawing, carried to the antique and leading to work from life as the pupil exhibits ability. Lectures. Five hours a week.

A course in design, interior decoration and applied or industrial art generally, is being prepared for advanced students.

PHYSICAL CULTURE.

WILL ORIAN TRINE, Physical Director.
GILBERT S. HARTSON, Assistant.

The aim of this department is to secure and maintain perfect health. To this end we strive to develop a symmetrical and graceful body. No pretense is made at developing actors, and no one is required to do what is known as "heavy work." However, there are always classes and special teams in various lines of artistic gymastics, and those enjoying the work are welcome.

The chief aim is to benefit the weak and to guard against developing any tendencies to weakness or disease that so often exist. To this end every man entering the department is given a rigid physical examination. In these examinations the exact condition of the man is noted and special exercises are prescribed to meet his particular case. Records are kept, making it possible by later examinations to note results of work and progress made.

The work is largely selected from the German and Swedish systems of gymnastics and "The Grading of Gymnastic Exercises" by George M. Martin. A progressive course is followed. The class work which is carefully planned aims primarily to cure the common physical defects, such as narrow chest, stooping shoulders and weakened muscular system.

The gymnasium is well equipped for thorough work. The basement is provided with lockers and bath rooms for both men and women. The main floor is equipped with horizontal bar, parallel bars, buck, horse, rings, ladders, trapeze, dumb-bells, clubs, wands and other apparatus. South of the gymnasium is a large athletic field, with a quarter-mile track, grandstand, 100-yard straight-away track, tennis courts and football grounds.

MINES AND MINING.

JOHN FULTON, B. Agr., B. S., Prof. of Mineralogy and Geology.
GORDON V. SKELTON, C. E., Professor of Mining Engineering.

Instruction is given in this department to familiarize the student with the most approved methods of successfully carrying on mining operations as practiced on the Pacific coast. The student is taught the uses of the various surveying instruments and is given ample opportunity for practical application in both field and mine surveying.

The student is also taught how to care for and handle such machinery as boilers, engines, motors, pumps, etc., by practical study and use in the machine shops.

The course in mineralogy is designed to make the student familiar with all the common forms of minerals and their systems of crystallization.

Crystallography is first taken up, and the laboratory work consists of the study of crystal models and natural crystals.

After sufficient familiarity with crystal forms, the students are required to make drawings from actual measurements with the reflecting goniometer, by using the Penfield sheets and special protractors, and at least two each of the different systems are required.

Any student who has passed the course should be able to identify all but the rarer species. For all practical purposes this is sufficient. This course is required of all mining students but as it includes all the various blow-pipe as well as the other chemical tests, all who intend to become chemists will find it to their advantage to take at least crystallography.

Mineralogy I.—*Crystallography.*—Junior year; third term. Required of mining students, and open to seniors in both mechanical and agricultural courses. Seven hours a week.

Mineralogy II.—*Chemical and Descriptive Mineralogy.*—The laboratory work consists of blow-pipe analysis. On alternating days recitations and lectures. Seven hours a week.

Mineralogy III.—This is a continuation of course II, and

consists of the description and identification of the silicates. Seven hours a week. Qualitative analysis is required of all students who desire to enter these courses.

Mineralogy IV.—*Assaying.*—Senior year; second term. A course in practical assaying of gold, silver, iron, mercury, zinc and copper ores. Must be preceded by qualitative analysis and mineralogy I. Six hours a week.

Mineralogy V.—*Assaying.*—Senior year; third term. A continuation of course V. Six hours a week.

Mineralogy VI.—*Metallurgy.*—This course is designed to give the student a general knowledge of metallurgical principles and of the materials used in the extraction of metals from their ores. It will include a general description of fuels, furnaces, crucibles, slags and mattes, as well as the methods of extracting metals by wet processes, such as cyaniding, or chlorination. Seven hours a week.

Mineralogy VII.—This is a course in advanced metallurgy, consisting of the complete analysis of ores and metals, and is chiefly laboratory work. Elective.

Mineralogy VIII.—*Metallurgy of Iron and Steel.*—Laboratory and lectures. Elective.

All courses in mineralogy must be preceded by Geology I, and courses in metallurgy, by Geology II.

Geology I.—*General Geology.*—This course consists of both recitation and laboratory work, and, when possible, excursions into the adjoining country, to make observations upon the various geological phenomena. Five hours a week.

Geology II.—*Mining Geology.*—This course consists of lectures and recitations on the origin and geological relations of ore deposits, and is primarily for mining students. Five hours a week.

The courses in assaying cover analysis of gold, silver, mercury and lead ores, by the fire or dry assay, and the estimation of copper, iron and zinc, by the volumetric or wet assay.

Instruction in rapid estimations of various metals is also given when time permits.

The equipment of the assay laboratory consists of one simplex ore crusher, two wall cupel machines, two analytical bal-

ances (Spohrhaese), one Becker button balance, two Spohrhaese button balances, two pulp scales, one bucking board, one Weatherhead crusher, three crucible furnaces, three muffle furnaces, two combination muffle and crucible furnaces. All above furnaces are heated by Hoskins' gasoline burners, supplied by pressure from one fifteen-gallon pressure tank. In addition, there are furnaces for coal or coke, both stationary and movable, anvils, moulds, tongs, scorifier-crucible and cupel-hand cupel machines, etc.

Nothing has been omitted in the equipment of a first-class assay laboratory, so that students completing the full course will have no difficulty in taking up the duties usually incumbent upon the assayer.

There have been added during the past year, a Fuess reflecting goniometer, a quantitative balance, two sets of crystal models and an extensive mineral collection.

A valuable addition to the mining department has just been completed, which is a metallurgical laboratory sufficiently large to accommodate 72 students.

In addition to the regular course there has been added another year's work for the completion of which shall be granted the degree of Mining Engineer.

The year's work will be largely a continuation of the fourth year's courses, in some cases extending into research work, while at the same time attention will be given to the courses required by other institutions offering advanced instruction along the lines of mining economy, so that students from this institution may not be prevented from completing the necessary amount of work entitling them to the master's degree, within the required time.

The requirements of such institutions as Stanford, Berkeley, Cornell, and Columbia School of Mines have been duly considered.

Texts.—Scott's Geology, Furman's Assaying, Eakle's Physical Mineralogy, Moses & Parsons' Blow-pipe Analysis. References. —Kemp's Ore Deposits, Dana's Geology, Leconte Geikie, Reiss, Miers, Dana, Brush-Penfield, Cheever and Smith, Spurr, Low, Lodge, Miller.

MILITARY SCIENCE AND TACTICS.

MAJOR FRANK EDWARDS, Professor of Military Science and Commandant of Cadets.

"Whatever arguments may be drawn from particular examples, superficially viewed, a thorough examination of the subject will evince that the art of war is both comprehensive and complicated; that it demands much previous study, and that the possession of it in its most approved and perfect state is always of great moment to the security of a nation."—*Washington's last annual message.*

"In the same measure as we are prepared to enforce them, will our demands upon other nations receive consideration."—*President Theodore Roosevelt.*

The military body consists of two battalions of Infantry, Band of 24 pieces, and such detachments of Cavalry, Artillery, Signal, Hospital and Engineer Corps as may be organized for special instruction. The formation is regimental; the drill and administration are the same as in the Regular Army.

One of the objects of this instruction is to prepare the cadet, so that upon graduation he will be thoroughly competent to hold a commission in the National Guard or volunteer army.

The greater part of the instruction is directed toward having cadets adopt a systematic rule of conduct, inculcating accurate methods in everything they undertake. This not only places cadets in the condition to receive favorably all instruction in the military department, but facilitates study in the other departments and becomes a valuable asset to a young man going out in the world in any profession.

Military drill improves the habits and manners of the student, develops him physically and gives him that military knowledge which it is desirable every citizen should possess that he may render intelligent aid to his country or state in the time of need. It cultivates a manly spirit, ready and implicit obedience, respect for authority and self-restraint—all qualities of inestimable value to a young man.

Instruction in the course is prescribed for all undergraduate male students. Students physically unable to bear arms are excused from active military drill but will be assigned some light duty by the head of the department. The instruction is both practical and theoretical.

The Cadet Band, with 24 instruments, is under the instruction of a competent musician as leader. Ordinarily no cadet will be assigned to the band until he is well instructed in the "school of the soldier" and the "school of the company."

The present armory contains a drill room 700x100 feet in extent, three offices, and suitable rooms for storing guns and other ordnance.

Three hundred Springfield cadet rifles, with equipments, two light artillery field pieces, twenty cavalry sabres, and a liberal allowance of blank and ball cartridges are furnished by the Ordnance Department, U. S. A. Other necessary equipments, apparatus, etc., for the thorough equipment of the military department is furnished by the College.

During the summer vacation the government will probably replace the Springfield rifles with 480 modern U. S. magazine rifles (Krag-Jorgensen), and the muzzle-loading field pieces with two 3.2-inch breech-loading field pieces.

Appointment and promotion of officers and non-commissioned officers and their relative rank in each grade is determined according to the military standing of the cadets, based upon a careful consideration of the following points: (1) Knowledge of drill and other duties as determined by examination, practical application of this knowledge on the drill field, and recommendations of superior officers. (2) Zeal, soldierly bearing and aptitude for command. (3) Character. (4) Military record. (5) General standing in College.

Commissioned officers are selected from the senior class; non-commissioned officers from the junior and sophomore classes; all reductions are to the grade of private. All appointments and promotions are made by the Commandant with the approval of the President of the College.

Officers and non-commissioned officers cannot resign their commissions, except on recommendation of the Commandant,

approved by the President; the reasons must be plainly stated in full and must not have been in existence at the time the commission or warrant was accepted.

Drill.—Freshman, sophomore, junior and senior years. The practical course in infantry includes the schools of the soldier, company and battalion, in close and extended order; evolutions of the regiment; ceremonies; guard and outpost duty; target practice and battle tactics. In artillery it includes the schools of the soldier, cannoneer and platoon, dismounted; the mechanism, nomenclature and care of the 3.2-inch breech-loading field piece; the use of artillery in the field.

Those physically unable to bear arms, together with a limited number from the senior and junior classmen, may be assigned to the signal corps and instructed in the usual methods employed in military signaling.

Hospital, cavalry and engineering detachments are organized from time to time for practical instruction in those branches.

Cadets are required to wear a complete uniform at all drills and other military exercises. The wearing of mixed civilian and uniform clothing is prohibited at all times. The uniform complete costs about $16.00 and is of the regulation olive drab color adopted by the United States Army and makes a very neat and serviceable suit.

Students must come prepared to deposit the price of the uniform, for which they will be measured as soon as they learn the position of a soldier.

Proficiency in the military department is a requisite to graduation.

Theoretical Instruction.—One recitation or lecture each week during junior and senior years. This instruction consists of recitations in Infantry, Artillery and Cavalry Drill Regulations, Field Service Regulations, Manual of Guard Duty, Small Arms Firing Regulations, and Army Regulations; instruction in military correspondence and reports and returns; lectures on military subjects that pertain to the organization and administration of the United States military forces in peace and in war.

ROSTER.

Cadet Officers and Non-Commissioned Officers.

Regimental Field and Staff.

Colonel.....M. V. Weatherford
Lieutenant-Colonel...W. E. Forsythe
Major, Inspector.....G. J. Dodson
Captain, Adjutant.....J. G. Kelly
Captain, Quartermaster..D. R. Groves
Captain, Commissary....F. M. Hofer
First Lieut., Insp. Rifle Practice..
.....A. P. Tedrow

Non-Commissioned Staff.

Sergeant Major.....W. H. Davolt
Quartermaster Serg..L. J. Rosenstein
Commissary Sergeant.R. I. Thompson
Chief Trumpeter.....N. E. Chapin
Color Sergeant.....J. B. Jones
Color Sergeant.....J. J. Clark
Color Sergeant.....E. R. Woods
Corporal, Chief Clerk..F. S. Ivanhoe

Band.

Captain, Leader.....H. L. Beard
Chief Musician.....H. Wilkins
Sergeant.....R. E. Wills
Sergeant.....N. F. Reed
Sergeant.....C. A. Harlan
Sergeant.....R. B. Adams

Drum Major.....C. A. Ingle
Principal Musician.....C. F. Cathey
Corporal.....O. P. Lumm
Corporal.....J. R. Luper
Corporal.....E. A. Hudson
Corporal.....C. W. Johnson

Hospital Detachment.

First Lieutenant, Commanding....
.....C. O. Dicken
Sergeant.....L. F. Darby
Sergeant.....E. E. Applewhite
Sergeant.....F. L. Griffin
Sergeant.....L. B. Russell

Second Lieutenant.....J. E. O'Neel
Corporal.....R. E. Nichols
Corporal.....S. A. Chappell
Corporal.....C. L. Rogers
Corporal.....E. Hanna
Corporal.....W. R. Waggoner
Corporal.....L. H. Kelty

First Battalion.

Major.....C. G. Brownell
Second Lieut., Q. M...B. H. Greenhaw

First Lieut., Adjutant.....J. Lingaas
Sergeant Major.....S. J. Hammel

	Company "A."	Company "B."
Captain	A. K. Berman	A. R. Barnett
First Lieutenant	(C. O. Dicken)	P. A. Jones
First Lieutenant	R. C. Brodie	P. M. Finley
Second Lieutenant	O. R. Spires	
First Sergeant	C. T. Parker	E. P. Harding
Quartermaster Sergeant	(E. Applewhite)	O. C. Johnson
Sergeant	W. C. Bolton	T. R. Sleight
Sergeant	C. F. Cropp	C. H. Hays
Sergeant	W. T. Martin	(F. L. Griffin)
Sergeant	L. L. Doane	H. S. Bilyeu
Corporal	E. E. Allen	T. J. Autzen
Corporal	R. E. Bower	R. W. Worstell
Corporal	(R. E. Nichols)	R. A. Murray
Corporal	H. A. Yeager	P. C. Zimmerman
Corporal	R. H. Sprague	(S. A. Chappell)
Corporal		A. H. Schmidt
Musician	(Corp.) R. V. Williamson	R. E. Porter

	Company "C."	Company "D."
Captain	R. W. Allen	P. H. Spillman
First Lieutenant	L. W. Metzer	L. A. Thomas
Second Lieutenant	A. H. Post	L. T. Bowser
First Sergeant	C. C. Hollenberg	R. K. Brodie
Quartermaster Sergeant	A. Anderson	R. E. Reynolds
Sergeant	J. Melhase	C. Christiansen
Sergeant	R. H. Rogers	D. A. Wright
Sergeant	F. N. Fox	L. B. Chambers
Sergeant		F. E. Rowland
Corporal	S. B. Hall	A. K. Chapman
Corporal	H. Zimmerman	C. I. Barnes
Corporal	E. S. McElligott	G. A. Nelson
Corporal	C. Benshadler	A. B. Smith
Corporal	E. Metzger	E. C. Calloway
Corporal		(C. L. Rogers)
Musician	W. R. Carter	R. S. Watts

Second Battalion.

Major	S. H. Graf	First Lieut., Adjutant	F. R. Miller
Second Lieut., Q. M.	C. C. Vincent	Sergeant Major	C. S. Benson

	Company "E."	Company "F."
Captain	C. M. Stebinger	R. R. Selleck
First Lieutenant	S. L. Bennett	W. F. Bell
Second Lieutenant	C. V. Schrack	A. A. Witzig
First Sergeant	C. B. Sprague	H. E. Cooke
Quartermaster Sergeant	(L. F. Darby)	C. J. Currin
Sergeant	W. E. Wood	J. G. Schroder
Sergeant	R. S. Milln	B. L. Cunningham
Sergeant	W. K. Barnell	C. T. West
Sergeant	P. J. Cherry	
Sergeant	P. A. Lockwood	
Corporal	W. W. McKenzie	(E. Hanna)
Corporal	M. J. Gribble	C. Williamson
Corporal	A. E. Stovall	R. Neal
Corporal	E. C. Wiggen	D. O. Taggart
Corporal	W. A. Hensley	G. H. Blackmun
Corporal		J. E. Higdon
Musician	M. J. Lazelle	R. Castle

	Company "G."	Company "H."
Captain	D. G. Thayer	R. W. McNeil
First Lieutenant	C. C. Clark	G. J. Reiling
Second Lieutenant	P. C. Rinehart	A. L. Applewhite
Second Lieutenant	(J. E. O'Neel)	
First Sergeant	C. O. Davolt	S. A. Brown
Quartermaster Sergeant	J. F. Winniford	J. E. Hanny
Sergeant	D. C. McMillan	H. C. Leonard
Sergeant	R. Wall	F. E. Hall
Sergeant	D. Q. Elrod	(L. B. Russell)
Sergeant		F. Kerr
Corporal	R. R. Clark	G. E. Whitcombe
Corporal	P. H. Cale	G. Benshadler
Corporal	H. W. Marrs	M. E. Mitchell
Corporal	D. F. Morgan	F. D. Luse
Corporal	G. A. Cross	G. Abraham
Musician	(Corp.) P. O. Pelland	P. Lines

NOTE.—Company officers and non-commissioned officers whose names are in parentheses are with Hospital Detachment.

THE EXPERIMENT STATION.

The station bears an important relation to the college, as the scientific investigations conducted at the station strongly support the instruction given in the class room. Aside from the original investigations of an economic significance to agriculture, the work of the station affords daily object lessons in good modern farming.

About one hundred acres of the college farm are devoted to scientific and experimental farming. Animal husbandry is an important feature of station work. For this branch of the work Shorthorn and Jersey cattle, Cotswold and Shropshire sheep, Berkshire and Chester White swine are maintained. Among these, animals can be found of rare individual excellence, thus offering the student in agriculture an opportunity to study the highest types of the respective breeds.

Extensive field trials are made in the growing of many varieties of cereals, grasses and forage plants, which are utilized in various feeding experiments conducted for the purpose of determining their value as stock foods. This work embraces the study of plant environment and the correlated subject of animal nutrition, thus supporting in a practical manner the science of agriculture as taught in the college.

Dairying is also a prominent feature of the station work. For this purpose a herd of typical dairy cows and a well equipped creamery are maintained. Many problems of vital interest to practical dairymen are constantly being worked out along the lines of rations for cows and methods for handling the herd. The student himself frequently assists in the work and thus obtains tangible evidence of the practical utility of the sciences in dairy husbandry.

The horticultural work of the station affords the student an admirable opportunity for comparing the work of the class room with the practices of the field. Plant breeding, cross pollination of fruits, as well as modern methods of planting,

pruning, grafting, spraying and cultivation are all brought immediately under the observation of the student, thus affording him an excellent opportunity to become thoroughly conversant with the science and practice of horticulture.

THE SHORT COURSE IN AGRICULTURE.

To give Oregon farmers who are unable to pursue a four-year course in the Agricultural College, a share in the advantages of higher education, the college has for many years conducted Farmers' Institutes in various parts of the state. But the institute, while it has its place, has developed another movement of perhaps greater importance, that of holding a more extended institute, known as the Short Course in Agriculture, Horticulture and Dairying.

The main conception of such schools is, that they are places where people from the farm and orchard—practical farmers and fruit growers—can understandingly study the application of some of the fundamental laws of their occupation. In announcing the Short Course we feel that we can make it thoroughly practical for any intelligent agriculturist, and that we can make scientific agriculture and horticulture both educational and useful. Such a course covers a field which on account of lack of time and apparatus for illustration cannot be undertaken in the regular Farmers' Institutes.

The course consists of a series of popular lectures along lines suited to aid horticulturists, dairymen and others engaged in agricultural pursuits in developing the great natural resources of our state. The lectures are all supplemented by laboratory work under the supervision of experts who strive to make the course thoroughly practical by adapting the work as far as possible to the needs of each individual. The primary study is of things rather than books, and there is always kept in mind the practical side of the matter under discussion. Little time is spent in purely theoretical discussion.

There will be no educational test. No special preparation is necessary as the instruction will be given by lectures and practical work. It is the aim of this course to give to the student

the largest possible amount of practical information regarding the various phases of agriculture and horticulture.

An important source of information for those attending this course is the station and college library where the best books on agriculture, horticulture and dairying are found. The bulletins of the experiment stations of all the states in the Union are on file at the college and will be at the command of anyone wanting them. These bulletins are invaluable as being about the only source from which one can get information as to the present status of, and the progress that is being made in, agricultural and horticultural matters.

An effort will be made to direct the reading along particular lines in such a way that the reader will get in touch with the progressive work that is being done in his particular occupation.

The first lecture of the series will be given at 9 a. m., Tuesday, January 7, 1908, and the course will close on Friday, January 18, 1908.

SHORT COURSE IN DOMESTIC SCIENCE.

There will be a two weeks' course in Domestic Science, under the direction of Dr. Margaret C. Snell and Mrs. Clara H. Waldo, open to all women of the State. The course will begin Tuesday, January 7. Tuition free; no educational test.

SPECIAL COURSE IN DAIRYING.

The establishment of the dairy department of the Oregon Agricultural College on the first floor in the new Agricultural Hall makes it possible for the institution to give a special course in butter and cheese making and subjects closely related thereto. The management of the institution will offer such a course of six weeks duration, beginning simultaneously with the opening of the short course in agriculture.

The course is designed to familiarize students with the modern forms of dairy apparatus, and to teach the underlying principles of the production, care and manufacture of milk into butter and cheese. Both the *how* and the *why* will be the aim of the instructors, and it is the intention that the ideas

set forth will be applicable to the farm dairy as well as the larger creamery or cheese factory.

Admission.—The dairy course is open to all persons, both male and female, who are at least 18 years of age and who have a common school education. No entrance examinations will be required, but it is expected that those seeking admission will be able intelligently to understand lectures, take notes and perform a small amount of text-book work.

Equipment.—More than one-half of the floor space on the first floor of Agricultural Hall is devoted to the dairy department. At the left of the main entrance is the dairy instructor's office, and to the right are located the dairy rooms proper. The main work room, located in the northwest corner is 24x44 feet with cement floor sloping from all directions toward the center where a bell trap connects with the sewer system of the building. This room is equipped with seven of the modern styles of cream separators, operated by either steam or hand power. There are also combined churns and workers, box churns, table workers, receiving and ripening vats, pasteurizer and the necessary apparatus for the manufacture of full cream Cheddar cheese.

Adjoining the main work room are lockers for students' use, a well lighted boiler room 16x18 and a wood and store room.

In the northeast corner of the building is the dairy laboratory 22x40 feet, equipped with all the modern devices for testing milk and its products, such as hand and turbine Babcock tests, curd tests, cream scales and automatic acid measures.

Two commodious chesse-curing rooms, 10x16 and 12x16 feet, complete the quarters of the dairy department.

The college library located in the Administration Building will be open to students of the dairy course. Here access may be had to the leading farm and dairy papers of the United States as well as some foreign publications. Full sets of the bulletins of the various experiment stations and the U. S. Department of Agriculture are on the library shelves, also many valuable books pertaining to dairy matters.

Character of Work.—Students will meet for work six days per week. The forenoon of each day will be devoted to practi-

cal work in the dairy rooms. Two days per week will be devoted to cream separation and butter making, two days to cheese making, and two will be spent in the dairy laboratory. In the afternoons of all days except those devoted to cheese making, lectures and recitations will occupy two or three hours. The object of this class-room work is to give the student a better knowledge of the underlying principles upon which the practical dairy operations are based. An outline of the work is given below:

LECTURE WORK.—*Soil Chemistry and Physics.*—This includes a study of the origin and composition of soils and of the plant food contained in them. Such questions as the conservation of moisture; conditions affecting the water-holding capacity of soils; temperature of soils, etc., discussed and illustrated by experimental work. In this connection the composition and use of fertilizers is considered, including the discussion of both farm manures and commercial fertilizers, their composition, and when and how to use them.

Feeds and Feeding.—This includes the study of forage plants, growth, adaptability, chemical composition and their relationship to successful dairy husbandry—the study of the fundamental principles of animal nutrition, including digestion, assimilation—the composition and feeding value of the different grains and commercial feed stuffs and how they should be fed for best results in milk production.

Milk and Its Products.—For this work a text-book, "Milk and Its Products," by H. H. Wing, is used, supplemented by lectures. Some of the topics covered by the text are: Secretion and composition of milk; pasteurization; market milk; the ripening of cream; principles of the Babcock test; milk for cheese making; varieties of cheese, etc. Creamery accounts and herd records will also be taken up in this connection.

Dairy Bacteriology.—Lectures and laboratory demonstrations are given relative to the various forms of bacteria which are of interest to the dairyman.

Breeds and Breeding.—A necessary requirement of a successful dairyman is the ability to harmonize breed and environment. Hence this work embraces the study of the origin and

characteristics of the leading dairy breeds, adaptability, form as related to function and a general discussion of types.

The college maintains a typical herd of dairy animals comprising representatives of three popular breeds, thus affording the student an excellent opportunity to make comparisons. Stock judging both by the card system and by comparison is a feature of this work.

Chemistry of Dairy Products.—In these lectures the comparison of dairy products is dealt with more in detail than it is possible for the lecturer on dairying to do. In order to bring out and emphasize certain points, these lectures are accompanied by experiments and the examination of dairy products.

Veterinary Science.—This will consist of a general discussion of the causes of the common diseases of cattle, their treatment and best means of prevention. It will also include discussions relative to the usual management and care of the herd and individual members thereof, in health or disease.

Steam Engine.—Discussions and practical work relative to the structure, care and operation of steam engines and boilers, with special reference to the principles involved, are held. Four boilers and a like number of engines are available for illustration in this work.

LABORATORY.—*Practical Dairy Work.*—This work consists of extended practice in the use of the Babcock test in determining the percentage of butter fat contained in milk, skim milk, buttermilk, cream, whey, butter, and cheese. Particular attention is given to the use of scales in connection with cream testing. The use of acid tests for determining the ripeness of the cream is considered. Daily practice in the application of results obtained is afforded.

Butter Making. Seven latest style cream separators furnish practice in the removal of cream from milk. A combination churn, a trunk churn, and a table worker will illustrate the operations of churning and working butter. One and two-pound moulds, and cutting boxes illustrate the methods of finishing. All work in this line is performed by students under the direction of the instructors.

Cheese Making.—The manufacture of full cream Cheddar

cheese is considered. Attention is given to the small sizes, known as Young Americas. Some partly skimmed milk cheese is made to illustrate the effect of the removal of a portion of the cream. The use of various rennet tests is taught, also the hot iron test. Small vats are used in this work in order that each student may have an opportunity to carry the work through from start to finish.

EXPENSES.

Fees.—There will be no fees except a breakage deposit of $3.00, a portion of which will be returned at the close of the term. This deposit is mainly to cover breakage of glassware in the laboratory, and in case of no breakage the fee will all be returned, except a small fee for material.

Board and Lodging is obtainable in Corvallis at $3.00 to $4.00 per week. A list of places may be seen at the office of the dairy instructor.

Clothing.—Students are ordinarily required to wear white suits while at work. These can be purchased in the Corvallis stores at $1.00 to $1.50 per suit, consisting of cap, trousers and jacket. A pair of colored overalls will also be found useful at times.

Books.—This item will not exceed $2.00. The only regular text-book will be "Milk and Its Products," by Wing. Some note books will be needed by those who wish to make the most of the course. Anything required in this line can be obtained in Corvallis.

Since only a limited number of students can be accommodated in this course, application for admission should be made to the department of dairying at least two weeks preceding the opening.

The course will open on Tuesday, January 7th, in connection with the opening of the Short Course in Agriculture.

For further particulars regarding the Special Dairy Course address F. L. Kent, Corvallis, Oregon.

FARMERS' INSTITUTES.

One of the most useful methods of diffusing argicultural ed-

ucation is the farmers' institute. These institutes are especially helpful both to the farmer and the experiment worker. The former secures scientific information upon topics of immediate interest to him and is instructed in its practical application to the farm; while the latter is brought to realize more vividly the needs and perplexities of the farmer. It is gratifying to note the growing demand for more of these institutes, and while the station is every ready to accede to these demands, it is annually becoming more difficult on the part of the station officials to fulfill these obligations, owing to the constant increase in the work of the station.

SCHOOL OF MUSIC.

GERARD TAILLANDIER, Director and Professor of Piano.
EDNA J. SHEEHY, Instructor in Voice.

FRANK C. MCREYNOLDS, Instructor in String Instruments.
HARRY F. BEARD, Instructor in Band Instruments.

GENERAL INFORMATION.

The Agricultural College School of Music begins and ends on the same days as the college, and offers not only full courses in piano, voice, violin, but also in band instruments, musical history, harmony, etc.

The school is under the supervision of a director who conducts the examinations and is assisted by other instructors to maintain a high standard of musicianship. All departments are co-operative. All instructors assist each other in creating a musical atmosphere and in giving a musical stimulus; thus creating a feeling of inspiration which naturally assists both teachers and students to reach the ideal set before them. Musical recitals are given each term by the faculty as well as by students. All music students are required to take part in pupils' recitals whenever asked by the teachers, and to attend all recitals given by the School of Music, to all of which they will be given free admission.

All music students must register at the beginning of each term with the Musical Director before going to special teachers.

At the end of each term an examination of musical terms, rhythm, etc., will be given to all music students. The successful passing of this theoretical examination is as important as the practical work of the pupil and due credit will be given for it.

A literary education being as necessary to the musician as to anybody else, all music students are earnestly recommended to avail themselves of the advantages offered at this college to pursue other studies while studying music.

Special music students are required to take not less than two lessons weekly. Others who take a regular college course may

take only one weekly. Music students can enter at any time during the year.

Arrangements for renting pianos can be made with the director.

All regular music courses are divided into three courses. Elementary, Intermediate and Advanced, with two grades in each. A post-graduate course in piano is also offered. The courses of instruction are presented in detail. These courses may be varied to suit the needs of the student.

GRADUATION.

The O. A. C. School of Music is conducted on the principles of the best conservatories in America and on the European continent. A diploma is granted to students who successfully complete a full course, but no degrees are conferred. A full course includes the prescribed work in harmony, musical history, and other theoretical branches, besides the specialty piano, voice, violin, etc.

Vocal and violin applicants for graduation must be through the intermediate grade III of the piano course and be able to pass an examination therein. To those who are not regular students in the piano department a fee of $1.00 will be charged for this examination.

To attain graduation, proficiency is more important than length of attendance, but all graduates must have been students at this school for at least one full school year with two lessons weekly.

All graduates must be able to give an entire recital of not less than one hour in length.

TUITION.

Unless otherwise stated all lessons are private lessons of thirty minute duration.

Piano.

$18.00 per school term twice weekly.
$12.00 per school term once weekly.

Voice.

$18.00 per school term twice weekly.
$12.00 per school term once weekly.

Class lessons one hour in length, three in a class—
$12.00 per school term twice weekly.
$ 8.00 per school term once weekly.
Solfeggio: Ten in a class—
$3.00 per school term twice weekly.

Violin.

$18.00 per school term twice weekly.
$12.00 per school term once weekly.
Class lessons one hour in length, four in a class—
$ 9.00 per school term twice weekly.
$ 5.00 per school term once weekly.

Violin, Violoncello, Bass.

Same rates as for violin.

Mandolin, Banjo, Guitar.

$12.00 per school term twice weekly.
$ 8.00 per school term once weekly.

If less than a full term is taken, the lessons will be charged at the rate of $1.00 each twice weekly, and $1.25 each if taken once weekly, but no reduction is made from term rates on class lessons.

Band Instruments.

Private lessons 50 cents per hour.

Theoretical Branches.

$6.00 per term for each study, in classes twice weekly.
Diploma at graduation, $5.00.
Special examinations (see graduation), $1.00.

Music books can be obtained from the instructors.

All tuition is payable in advance to the instructor who assigns the lessons.

No allowance will be made for omitted lessons except in case of protracted illness, in which case due notice must be given to the teacher, who will then no longer reserve the pupil's time. A new hour will be assigned when the pupil resumes the lessons. In case of indisposition, or, if for other good reasons, the pupil is unable to take the lesson, the teacher may arrange to give the lesson at some other time, but all missed lessons must be made up within the term.

Arrangements for renting pianos can be made with the musical director, the charges being 25 cents per week for one hour daily practice, 50 cents for two hours, etc.

PIANO COURSE.

Elementary Course.—Grade I. No requirements for entrance. Kohler Method, Vol. 1; A. Schmitt, Five Finger Exercises; Easy Pieces by Behr, Lichner, Low and others; Kohler, Studies Op. 50, Op. 157, Op. 242.

Grade II. Kuhlau, Sonatines; Major scales and arpeggij; studies by Kohler and Czerny; Pieces by Koelling, Lange, Pacher and others.

Intermediate Course.—Grade III. Major and Minor Scales and arpeggij; Loschhorn, Etudes, Op. 66; Bach, Little Preludes; Mendelssohn, Op. 72; Beethoven, Variations and other pieces.

Grade IV. Cramer-Bulow Studies; Bach, two part inventions; Beethoven, Sonatas, Op. 14, Op. 2; Haendel, Pieces; Kullak, Octave Studies, Book I; Bach, Fantasie in C Minor, etc.; Mendelssohn's Songs Without Words; Weber, Pieces.

Advanced Course. Grade V. Clementi, Gradus ad parnassum; Kullak, Octave Studies, Book II; Moscheles, Etudes Op. 70; Beethoven, Sonatas, Op. 10, 13, 31; Beethoven, Variations, Op. 34; Chopin, Preludes, Valses, Nocturnes, etc.; Bach, Preludes and Fugues; Mendelssohn, Rondo capriccioso; Schumann, Pieces.

Grade VI. Chopin, Etudes, Op. 10 and 25; Bach, Fugues and Suites; Schumann, Faschingsschwank, Op. 26; Liszt, Transcriptions and Rhapsodies; Mendelssohn, Variations serieuses; Beethoven, Sonatas, Op. 26, Op. 27, Op. 53; Chopin, Scherzi and Ballades.

Post Graduate Course.—Grade VII. The post-graduate course carries pupils on from the point reached in the Advanced Course, Grade VI. The more difficult works of Bach, Beethoven, Schumann and others, including concertos, will be taken up, and the study of counterpoint and analysis becomes compulsory. To enter the post-graduate course, pupils must hold diplomas from the undergraduate course of this department or from some other music school of equal requirements.

VOICE COURSE.

Elementary Course.—Grade I. Vocal exercises for placing the voice. Abt Singing Tutor, Vol. I and II; Panofka A, B, C; Zoellner, Forty Exercises; Concone, Fifty Lessons.

Grade II. Concone, Forty Lessons; Sieber, Thirty-six Studies, Op. 92; Nava, Op. 3.

Intermediate Courses.—Grade III. English and Italian Songs. Panofka, Op. 86; Nava, Op. 9; Lamperti, Elementary Exercises; Marchesi, Studies.

Grade IV. Bordogni, Twenty-four Introductory Studies; German Songs and Simple Arias.

Advanced Course.—Grade V. Luetgen, Trill Studies; Lamperti, Dodici Solfeggij.

Grade VI. Bordogni, Thirty-six Studies; Bordogni, Twelve Nouvelles Vocalises; French Songs, Oratorias and Arias.

Diction—English, Italian, French, German.—Diction is the proper enunciation of a language as put to vocal music, thereby giving more style and finish to the work. In the studying of songs special attention will be given to it. Often songs are set to but one authentic language as approved by the composer whose thoughts we interpret; and especially is this true of standard compositions. Translations often change the whole meaning of a piece.

Vocal Sight Reading, Solfeggio.—Vocal sight reading is strongly recommended to all students of this department. It meets the needs of all students deficient in the fundamental principles of music (such as rhythm, intervals, scales, etc.) and who are unable to read vocal music at sight. Proficiency in advanced sight reading is strictly insisted on before graduation. The Solfeggio course consists of Ear Training, Dictation, Sight Reading, Rhythm, Intervals, Solfaging and Part Singing.

A chorus of mixed voices will also be formed during the year.

VIOLIN COURSE.

Elementary Course.—Grade I. Dancla's Paris Conservatory Methods, Book I; Fred. David's Violin School, Book I; Easy pieces by Alard, Jungmann, Bohm, etc.; Easy fantasias by Dancla; Scales.

Grade II. Kayser Studies, Book I; Air and Variations by Dancla, de Beriot; Pieces by Corelli, Papini, Thome, Hauser, etc.

Intermediate Course.—Grade III. Dancla's Conservatory Method, Book II; Kayser Studies, Book II; Gavotte Leonard; Romanza, Spohr; Cavatina, Raff; Romances, Op. 40 and 50, Beethoven.

Grade IV. Kreutzer Etudes; Studies by Dancla, Mazas, Rhodes and others; Andante and Scherzo, David; Concertoes Nos. 6 and 7, De Beriot; Sonata A Major, Haendel; Etudes on caprices, Florilla.

Advanced Course.—Grade V. Spohr, Violin Schule; Sonatas for Violin Alone, Bach; Legende, Wieniawski; Air on the G String, Bach; Seventh Air and Variations, De Beriot; Caprices, Rode.

Grade VI. Twenty-four Caprices, Paganini; Concertos by Brahms, Saint-Saens, Sphor; Perpetual Motion, Ries; Polonaise, Wieniawski; Nocturne Op. 9, Chopin-Sarasàte.

THE COLLEGE ORCHESTRA.

An orchestra has been formed for the benefit of the students of the School of Music, but it is also open to all other students of the college, as well as to all other persons in town whom the teacher may deem properly fitted for membership. There is no charge for belonging to this orchestra and both young men and women are admitted.

Last year a String Quartette and Quintette was also formed, besides a mandolin and guitar club.

THE COLLEGE BAND

which is now under the able instruction of Mr. Beard, is an organization of twenty-six members, made up entirely of college students. The position of bandmaster was created in 1905, when the present instructor was engaged. Prior to that time the directing of the band was left to a student.

To become a member of the band a student must pass a satisfactory examination as to knowledge of music and ability to perform on his instrument.

The band will be enlarged as the attendance at the college grows. It is hoped to increase it next year to forty pieces.

The members are required to attend rehearsal every day, while a reasonable amount of individual practice is also expected.

There is no charge for instruction in the band. Those who want private lessons on any band instrument can have the same at 50 cents per lesson. Each member of the band must furnish his own instrument and music stand, except basses, baritones, altos and drums, which are furnished by the college. High pitch is used.

THE GLEE CLUB.

On account of the large number of students in the college, the membership of the Glee Club is limited. Students desiring to become members must be able to pass a simple test in sight reading after satisfying the instructor as to the amount of voice they possess.

THEORETICAL COURSES.

Harmony and Counterpoint, I, II, III.—This course will cover one school year. Emery's Harmony and Bridge's Simple Counterpoint are used as text-books. Only two part simple counterpoint will be taught, with a view to enable the student intelligibly to interpret polyphonic works. This study ought to be taken by all students in advanced grade V, or earlier.

Theory and Musical Form I, II.—These subjects will be taught twice weekly during the winter and spring terms. No text-books will be required for Theory and Form.

Musical History, I, II, III.—Bonavia Hunt's History of Music will be found the most useful and handy book of reference for students taking this course. Instruction will be given principally in lectures upon which the students are expected to take notes. The lectures will be based on the Histories of Music by Rowbotham, Naumann, Hullah, Dr. Riemann, Dr. Nohl, Dr. Langhans, Groves Dictionary of Music and Musicians, etc., and the course will be a very comprehensive one, covering the history of music from the most ancient times to the present. Two periods weekly will be required during the entire school year.

LIBRARY.

RICHARD JEFFREY NICHOLS, B. S., Librarian.

The library of the Oregon Agricultural College occupies one large room and one smaller one, comprehending together about two-thirds of the floor space of the basement story of the Administration Building. The large room, besides containing most of the books, is the reading room.

The library numbers over 4,000 volumes of standard works of history, biography, engineering, agriculture, natural science, mental and moral philosophy, poetry, general literature and reference; also about 10,000 pamphlets and bulletins.

It is also a depository for the publications of the United States Government, of which it has nearly 6,000 bound volumes.

Many of the leading papers and periodicals are regularly subscribed for, of which the current numbers are kept conveniently arranged in the reading room and are accessible to all.

Several dailies, also, are taken, and through the courtesy of the editors a large number of journals, mostly of farm interest, and county newspapers of Oregon, are sent to the reading room.

During the past year, by simply paying the freight, the library secured over two thousand bound volumes, practically all Government publications, from the library of the late United States Senator Dolph.

The Dewy Decimal System of classification is used and the card catalogue is in two parts, the dictionary (author and title) and classed.

The library is open for the issuing of books on every school day from 8 a. m. to 5 p. m., and on Saturdays from 10 a. m. to 3:30 p. m.

Books, excepting cyclopedias and works of general reference, may be drawn out by students for a period not exceeding two weeks.

The following periodicals come regularly to the reading room of the Oregon Agricultural College:

QUARTERLIES AND MONTHLIES SUBSCRIBED FOR.

American Chemical Journal
American Journal of Pharmacy
American Journal of Science
American Kitchen Magazine
American Magazine
American Naturalist
Aualyst
Arboriculture
Atlantic Monthly
Auk
Biological Bulletin
Bird Lore
Blacksmith and Wheelwright
Bookman
Botanical Gazette
Carpentry and Building
Century
Chemical Engineer
Circle
Cosmopolitan
Country Life
Delineator
Engineering News
Entomological News
Everybody's
Forum
Forest Quarterly
Harper's Monthly
Inland Printer
Johns Hopkins University History Series
Johns Hopkins Studies in History and Politics
Journal of American Chemical Society
Journal of Applied Microscopy
Journal of Pathology and Bacteriology
Journal of Medical Research
Journal of Electricity
Journal of Chemical Society (London)
Journal of N. Y. Entomological Society
Ladies' Home Journal
London Journal of Chemical Society
McClures'
Modern Housekeeping
Munsey
North American Review
Outing
Overland Monthly
Pacific Monthly
Philistine
Popular Science Monthly
Power
Readers' Guide
Review of Reviews
School of Mines Quarterly
Scribner's
School Science
Success
Technical World
Torry's Botanical Society
Torry's Bulletin
United States Postal Guide
Woman's Home Companion
World To-Day
World's Work

WEEKLIES AND DAILIES SUBSCRIBED FOR.

American Florist
American Machinist
American Lumberman
Atlanta Constitution
Breeders' Gazette
Boston Transcript
Collier's Weekly
Electrical World Engineer
Engineering and Mining Journal
Florists' Exchange
Mining and Scientific Press
Morning Oregonian
New York World
New York Evening Post
North West Prairie Farmer
Oregon Agriculturist
Oregon Daily Journal
Outlook
Pacific Homestead
Pacific Rural Press

Frank Leslie's Weekly
Gardiners' Chronicle
Harper's Weekly
Hoard's Dairyman
Illuminated World Life
Independent
Journal of Education
Judge
Life
Literary Digest
Puck
Rural New Yorker
Rural Spirit
San Francisco Call
Saturday Evening Post
Science
Scientific American
Springfield Republican
The Evening Sun

COME FREE OF COST.

American Sheep Breeder
American Sugar Industry
Century Path
Chicago Drovers' Journal
Corvallis Gazette
Crook County Journal
Farm, Stock and Home
Farmers' Review
Farmers' Advocate
Farmers' Guide
Forest Grove Times
Home Herald
Homestead
Hood River News-Letter
Kansas Farmer
Kimball's Dairy Farmer
Klamath Falls Express
Missouri Horticulturist
Northwest Poultry Journal
Ohio Farmer.
Orchard and Farm
Oregon Observer
Prairie Farmer
Prineville Review
Reliable Poultry Journal
Southern Farm Magazine
Successful Poultry Journal
The Farmers' Voice
The North Dakota Farmer
The Fruit Grower, St. Joseph, Mo.
The Orange Judd Farmer
The Sugar Beet
The American Thresherman
The Republic, St. Louis
The Valve World
The Pacific Dairy Review
Town and Country Journal
Yamhill Reporter
Wallace's Farmer

THE LAUE PRIZES.

MR. JOHN M. A. LAUE, President of the Oregon State Board of Pharmacy, has generously established two annual prizes of $35 and $15 respectively to be awarded to the two pharmacy students in the Oregon Agricultural College, obtaining the best grades in the regular June examinations held by the Board of Pharmacy. Competition for the first prize is restricted to regular graduates.

LIST OF STUDENTS.

GRADUATES.

NAME.	POSTOFFICE.	COUNTY.
Harry Benjamin Auld, B. S.	Woodburn	Marion
Claude Clifton Cate, B. S.	Hillsboro	Washington
Grover Cleveland Cate, B. S.	Hillsboro	Washington
Mary Cecil Danneman, B. S.	Clem	Gilliam
Mertie Harrington, B. S.	Corvallis	Benton
Annie Laura Hill, B. S.	Hood River	Wasco
Robert Combs Jackson, B. S.	Portland	Multnomah
Edna Marie Osburn, B. S.	Corvallis	Benton
Inez St. Germain Proebstel, B. S.	Corvallis	Benton
Esther Madeline Purdy, B. H. S.	Corvallis	Benton
Sohan Lall Ravi	Amritsar, India	
Harriette Faye Roadruck	Irrigon	Morrow
Walter Eakin Wade, B. S.	Wallowa	Wallowa
Bessie Hart Wilson, B. S.	Canyonville	Douglas

SENIORS.

Ralph Wilmer Allen	Agri.	Rickreall	Polk
Avery Lamar Applewhite	Agri.	Tillamook	Tillamook
Arthur Rex Barnett	Elec.	Portland	Multnomah
Elizabeth Nina Bell	H. S.	Beaver City, Nebraska	
William Frank Bell	Elec.	Beaver City, Nebraska	
Samuel Louis Bennett	Agri.	Medford	Jackson
Arthur Karl Berman	Phar.	Decatur, Illinois	
Belle Rebecca Bonney	H. S.	Woodburn	Marion
Leon Terry Bowser	Mech.	Silverton	Marion
Robert Chester Brodie	Agri.	Lents	Multnomah
Cyril Gideon Brownell	Agri.	Umatilla	Umatilla
Lyman Albert Bundy	Phar.	Moscow, Idaho	
Myrtle Ruth Burnap	L. C.	Philomath	Benton
Cecil Carl Clark	Agri.	Mt. Tabor	Multnomah
John Jay Clark	Elec.	Portland	Multnomah
Pauline Davis	H. S.	Yaquina	Lincoln
Clinton Orr Dicken	Phar.	Hood River	Wasco

Mary Elgin	Phar.	Corvallis	Benton
Percy Marvin Finley	Agri.	Junction City	Lane
Warren Ellsworth Forsythe	Phar.	Enterprise	Wallowa
Helen Margaret Gilkey	H. S.	Montesano, Wash.	
Samuel Herman Graf	Elec.	Portland	Multnomah
Del Roy Groves	Elec.	Portland	Multnomah
Cyrus Ashley Harlan	L. C.	Beatrice, Nebraska	
Max Arthur Hinrichs	Elec.	Hood River	Wasco
Fred Miller Hofer	Min.	Marshfield	Coos
Vera Delle Horner	L. C.	Corvallis	Benton
Calvin Asa Ingle	Phar.	Wasco	Sherman
James Jones	Elec.	Suver	Polk
Paul Agnew Jones	Min.	Ontario	Malheur
Lura Amelia Keiser	H. S.	Spirit Lake, Iowa	
James Garfield Kelly	Agri.	Lents	Multnomah
Jens Lingaas	Min.	Portland	Multnomah
Oliver Porter Lumm	Elec.	Dayton	Yamhill
Isabelle Mallett	H. S.	Ontario	Malheur
Weaver Thomas Martin	Elec.	LaFayette	Yamhill
Adah McDonald	L. C.	Woodburn	Marion
Ralph Waldo McNeill	Elec.	Portland	Multnomah
Lewis Wallace Metzger	Elec.	Gresham	Multnomah
Madeline Lenore Nichols	H. S.	Monroe	Benton
Jesse Earl O'Neel	Phar.	LaFayette	Yamhill
Winnie Nell Parsons	H. S.	Albany	Linn
Asa Holcolm Post	Agri.	Dayton	Yamhill
George Joseph Reiling	Min.	Parkplace	Clackamas
Leatha Leonore Rickard	H. S.	Corvallis	Benton
Leo Joseph Rosenstein	Elec.	Oregon City	Clackamas
Floyd Elba Rowland	Elec.	Shedd	Linn
Linwood Burt Russell	Phar.	Baker City	Baker
Charley Vernon Schrack	Agri.	Tangent	Linn
Royal Raymon Selleck	Elec.	Boyd	Wasco
Carl Bryant Smith	Phar.	Carson, Wash.	
Paul Herman Spillman	Agri.	Barton	Clackamas
Roger Spicer	Elec.	Antelope	Wasco
Oliver Ritchey Spires	Phar.	Myrtle Point	Coos
Carl Marion Stebinger	Elec.	Portland	Multnomah

Claude Vivian Swann	Mech.	Buena Vista	Polk
Albert Pearl Tedrow	Elec.	Monmouth	Polk
Darwin Green Thayer	Agri.	Rainier	Columbia
Lee Arden Thomas	Elec.	Huit, Wash.	
Clarence Cornelius Vincent	Agri.	Kings Valley	Benton
Bertha Estella Watrous	L. C.	Olympia, Wash.	
Mark Verne Weatherford	L. C.	Olex	Gilliam
Harold Wilkins	L. C.	Corvallis	Benton
Jessie Agnes Wilson	L. C.	Canyonville	Douglas
Alvah Asa Witzig	Elec.	Parkplace	Clackamas

JUNIORS.

Name.	Course.	Postoffice.	County.
Arvid Anderson	Mech.	Albany	Linn
Walter Rawalt Baker	Elec.	Salem	Marion
Renton Kirkwood Brodie	Agri.	Lents	Multnomah
Sherman Asher Brown	Elec.	Ft. Klamath	Klamath
Carrie Buchanan	H. S.	Corvallis	Benton
Mildred Buchanan	H. S.	Corvallis	Benton
Mabel Burdette Cady	L. C.	Holbrook, Nebraska	
Lincoln Beaumont Chambers	Elec.	KingsValley	Benton
Norris Everard Chapin	Elec.	Walla Walla, Wash.	
Conrad Cristiansen	Elec.	Toledo	Lincoln
Grace Cramer	L. C.	Holbrook, Nebraska	
Herbert Edward Cooke	Min.	Shaniko	Wasco
Burton Leigh Cunningham	Min.	Ft. Klamath	Klamath
Cleve John Currin	Agri.	Ione	Morrow
Claud Olson Davolt	Elec.	Catlin, Wash.	
Harling Davolt	Elec.	Catlin, Wash.	
Fred Noble Fox	Elec.	La Grande	Union
Benjamin Howard Greenhaw	Min.	Portland	Multnomah
John Edward Hanny	Mech.	Oregon City	Clackamas
Lora Hansell	L. C.	Corvallis	Benton
Earle Paul Harding	Phar.	Gaston	Washington
Arthur Donald Hill	Elec.	Hood River	Wasco
Clarence William Johnson	Phar.	Newberg	Yamhill
Cleo Lorena Johnson	H. S.	Corvallis	Benton
Oliver Clarence Johnson	Min.	John Day	Grant

Fred Kerr	Phar.	Corvallis	Benton
Bertha Anna King	H. S.	Corvallis	Benton
David Macmillan	Mech.	Sellwood	Multnomah
John Melhase	Min.	Ft. Klamath	Klamath
Ralph St. Claire Milln	Min.	Oregon City	Clackamas
Philip Oliver Pelland	Mech.	St. Paul	Marion
Charles Frederick Schirmer	Min.	Oregon City	Clackamas
Mary Rosa Scoggin	H. S.	Laidlaw	Crook
Thomas Roy Sleight	Mech.	Oregon City	Clackamas
Fred Lloyd Spires	Elec.	Myrtle Point	Coos
Grace Elizabeth Starr	H. S.	Bellfountain	Benton
Wilda Starr	H. S.	Albany	Linn
Alva Edward Stovall	L. C.	Philomath	Benton
Howard Weston Taber	Elec.	Sheridan	Yamhill
Bessie Mabel Tharp	L. C.	ForestGrove	Washington
Walter Robertson Waggoner	Phar.	Corvallis	Benton
Rupert Wall	Elec.	Early	Sherman
Eugene Cyrus Wiggen	Elec.	Westport	Clatsop
John Frankin Winniford	Mech.	Wren	Benton
Walter Ernest Wood	Elec.	Corvallis	Benton
David Alvis Wright	Elec.	Woodburn	Marion

SOPHOMORES.

Name.	Course.	Postoffice.	County.
Ross Brayton Adams	Mech.	Warren	Columbia
Ernest Everett Applewhite	Phar.	Roseburg	Douglas
Thomas John Autzen	Mech.	Hoquiam, Wash.	
Warren Keifer Barnell	Min.	Portland	Multnomah
Charles Irwin Barnes	Phar.	Elgin	Union
Jesse James Beaty	Mech.	Ballston	Polk
Orren Beaty	Agri.	Ballston	Polk
Charles Franklin Bendshadler	Mech.	Elgin	Union
George Henry Bendshadler	Mech.	Elgin	Union
Clifford Stuart Benson	Min.	Roseburg	Douglas
Harry George Benson	C. E.	KlamathF'lls	Klamath
Hamon Shelly Bilyeu	Min.	Athena	Umatilla
Otto Karl Blackaby	Mech.	Ontario	Malheur
William Cowan Bolton	Mech.	Portland	Multnomah

Charles Edwin Bowen	Min.	Oysterville,	Wash.
Robert Bower	Agri.	Silverton	Marion
Harry David Bowman	Mech.	Hillsboro	Washington
Philip Harrison Cale	L. C.	Albany	Linn
Edward Cleveland Calloway	Phar.	Ontario	Malheur
Fred Ward Canfield	Mech.	Ontario	Malheur
George Carmichael	L. C.	Weston	Umatilla
Ray Castle	C. E.	Vale	Malheur
Claud Franklin Chambers	L. C.	KingsValley	Benton
Alexander Kesterson Chapman	Mech.	Grants Pass	Josephine
Philip Jodrell Cherry	Mech.	Astoria	Clatsop
Roy Ross Clark	Min.	Portland	Multnomah
Oliver Kenneth Cole	Mech.	Turner	Marion
George Albert Cross	Mech.	Dundee	Yamhill
Elmer Raymon Crowe	Mech.	Lorane	Lane
Harvy William Currin	For.	Ione	Morrow
Lillie F. Currin	H. S.	Heppner	Morrow
Linnie Currin	H. S.	Ione	Morrow
Vernon Lewis Diven	L. C.	Vale	Malheur
Leslie Louis Doane	L. C.	Sumpter	Baker
Roscoe Britton Doane	Phar.	Sumpter	Baker
James Davis Dobbin	Agri.	Union	Union
George Julius Dodson	Agri.	Pendleton	Umatilla
Earl Irving Donelson	Mech.	Hillsboro	Washington
Edgar Wade Donnelly	Agri.	Richmond	Wheeler
Hamilton Keys Donnelly	C. E.	Richmond	Wheeler
Ella Belle Dunlap	Phar.	Shedds	Linn
Margaret Dunlap	Phar.	Shedds	Linn
Mildred Elanore Dyer	H. S.	Albany	Linn
Alma Ray Edwards	H. S.	Dell	Malheur
Joseph Earle Edwards	Mech.	Monroe	Benton
DeWalt Elrod	Phar.	Moro	Sherman
Alfred John Evans	L. C.	Mosier	Wasco
John Waldo Finn	Mech.	McCoy	Polk
Samuel Lane Foster	Agri.	JunctionCity	Lane
Walter Clayton Gagnon	Mech.	Roseburg	Douglas
Walter Carol Galloway	C. E.	Hillsboro	Washington
Joseph Allen Ganong	Phar.	Oregon City	Clackamas

Glen Kinzie Gardiner	Min.	Portland	Multnomah
Jesse Smart Gilkey	Mech.	Montesane,	Wash.
Edward Aseph Goodrich	Mech.	Lebanon	Linn
Sylvester Benjamin Hall	Agri.	Cleone	Multnomah
Frank Edward Hall	Min.	Milwaukie	Clackamas
Stanley Hammell	Phar.	Palmer	Multnomah
Ellsworth Braden Hanna	Phar.	Hood River	Wasco
Charley Sinclair Harris	Mech.	Vale	Malheur
M. Jeanette Hawley	H. S.	Wildwood	Lane
Charles Henry Hays	Agri.	Sherwood	Washington
Bessie Ruth Herbert	L. C.	Corvallis	Benton
Soren Francisco Holm	Mech.	Milwaukie	Clackamas
Alicia Pearl Horner	L. C.	Corvallis	Benton
Joseph William Howard	Phar.	Prineville	Crook
Ernest Alsworth Hudson	C. E.	Milton	Umatilla
Charles Darwin Hull	Mech.	CottageG've	Lane
Francis Clapton Jackson	Mech.	Portland	Multnomah
Elton Irwin Kelly	Mech.	Aims	Clackamas
Roscoe Verne Lake	Agri.	Corvallis	Benton
William George Lane	L. C.	Harrisburg	Linn
Marshall James Lazelle	Agri.	Oregon City	Clackamas
Charles Herbert Leonard	Mech.	Sheridan	Yamhill
Homer Clarence Leonard	L. C.	Sheridan	Yamhill
Lettitia Pearl Leonard	L. C.	Sheridan	Yamhill
Percy Albert Lockwood	C. E.	Portland	Multnomah
William E. Lowell	L. C.	Pendleton	Umatilla
James Rhea Luper	Min.	Heppner	Morrow
Fred Deininger Luse	Mech.	Portland	Multnomah
William Lester Marvis	Mech.	Oregon City	Clackamas
Edmund Samuel McElligott	Agri.	Ione	Morrow
Alice Marie McGinnis	L. C.	Moro	Sherman
Fred Marshall McHenry	L. C.	Corvallis	Benton
Robert Frank McKennon	Agri.	Alicel	Union
Liva Charles McLain	Phar.	La Grande	Union
Wayne Carl McLagan	Mech.	Tangent	Linn
Herbert Berry McLane	C. E.	Lyons	Linn
Elmer Metzger	Min.	Gresham	Multnomah
Frank Roland Miller	Phar.	Corvallis	Benton

Robert Bruce Miller	L. C.	Amity	Yamhill
Charles Langelle Moore	Mech.	Salem	Marion
George Allen Nelson	Agri.	Scappoose	Washington
Jud Oviatt	L. C.	Buell	Polk
May Oviatt	H. S.	Buell	Polk
Charles Taylor Parker	C. E.	Salem	Marion
Jesse Jason Peddicord	Min.	Portland	Multnomah
Cleva Peery	H. S.	McMinnville	Yamhill
Lois Lucinda Pratt	H. S.	Mound City, Missouri	
Roy Wilber Price	C. E.	Scappoose	Columbia
Ralph Elmer Reynolds	Agri.	La Grande	Union
Philip Cooper Rinehart	Phar.	The Dalles	Wasco
Fred Whitney Robertson	Mech.	Waucoma, Iowa	
Robert Henry Rodgers	Mech.	Portland	Multnomah
Charles Lawrence Rogers	Phar.	Astoria	Clatsop
Modesta Rosendorf	L. C.	Corvallis	Benton
Edna Mae Russ	H.S.	Ashland	Jackson
Adolph Harry Schmidt	C.E.	The Dalles	Wasco
Alfred Schoel	Phar.	Albany	Linn
Arthur Byron Smith	Mech.	Newberg	Yamhill
Frank Leroy Smith	Agri.	Corvallis	Benton
Neil Triston Smith	Mech.	Burns	Harney
Claude Bates Sprague	Agri.	Oregon City	Clackamas
Helen Maude Sprague	H. S.	Oregon City	Clackamas
Marie Rita Staehr	L. C.	ForestGrove	Washington
Cedric Hiram Stone	Agri.	Cleone	Multnomah
Louis Hubbard Stone	For.	Cleone	Multnomah
John Curtis Strebin	C. E.	Troutdale	Multnomah
Durland Orville Taggart	Mech.	Vale	Malheur
Owen Hancock Test	C. E.	Ontario	Malheur
Ralph Kinfield Thompson	C. E.	Heppner	Morrow
Ina Content True	L. C.	Mason City, Iowa	
Roy Clarke True	Mech.	Mason City, Iowa	
Evans Craig Varner	Mech.	Marx	Tillamook
Pearl Vincent	H. S.	Corvallis	Benton
John Oscar Vines	Mech.	Vale	Malheur
Homer Stacy Wall	C. E.	Early	Sherman
Alma Gertrude Watson	H. S.	Centralia, Wash.	

Charles Adam Watts	C. E.	Vancouver, Wash.	
Clarence Theodore West	Mech.	Rock Creek	Gilliam
Clyde Everett Williamson	L. C.	Albany	Linn
Martha Delilah Winniford	H. S.	Wren	Benton
Ernest Rowland Woods	L. C.	Albany	Linn
Ralph William Worstell	Mech.	La Grande	Union
Charles Edwin Zeiger	Agri.	Montclair, New Jersey	
Peter Chris Zimmerman	Mech.	Portland	Multnomah

FRESHMEN.

Name.	Course.	Postoffice.	County.
Thomas Sidney Abbott	Min.	Corvallis	Benton
Gustave Abraham	L. C.	Albany	Linn
Myrtle Leah Akins	L. C.	Portland	Multnomah
Elvera Allen	H. S.	Hood River	Wasco
Everett Edward Allen	L. C.	MyrtleCreek	Douglas
Hazel Allen	H. S.	MyrtleCreek	Douglas
William Cawston Allen	Mech.	Portland	Multnomah
Harrison Courteney Ames	Mech.	Sweet Home	Linn
Harry Leon Andrews	Mech.	Portland	Multnomah
Guy Moses Aupperle	L. C.	Jefferson	Marion
Bert Cleveland Baker	Mech.	GrassValley	Sherman
Clara Blanche Baker	L. C.	Corvallis	Benton
Harold Cannon Barchus	Mech.	Portland	Multnomah
Delle May Baldwin	L. C.	Corvallis	Benton
Charles Earnest Barber	Phar.	Richland	Baker
Ira Ellis Barrett	Phar.	Hillsboro	Washington
Hallie Barzee	L. C.	Moro	Sherman
Grace Monernia Bath	H. S.	Hillsboro	Washington
Franklin Richard Becker	Mech.	Philomath	Benton
Harold Wilson Bell	Mech.	The Dalles	Wasco
Sadie Bell	H. S.	Beaver City, Nebraska	
Roy Mervin Benson	Mech.	Univ. Park	Multnomah
Henry Ludwig Bergman	Mech.	Gardiner	Douglas
Albert Francis Bernard	Mech.	Beaverton	Washington
Everett Monroe Billings	Mech.	Union	Union
Louis Eugene Billings	Phar.	Union	Union
George Hiram Blackmun	Phar.	Woodburn	Marion

Arthur Stephen Blanchard	Mech.	Sumpter	Baker
Jessie Eva Bodle	H. S.	Portland	Multnomah
William Doherty Bollons	C. E.	Portland	Multnomah
Louis Hobart Booth	Mech.	Mount Hood	Wasco
Benton Bowers	Agri.	Ashland	Jackson
Leroy Breithaupt	Agri.	Clackamas	Clackamas
Elmer Clay Brock	L. C.	Hood River	Wasco
Frank Ray Brown	Agri.	Camas, Wash.	
Elmer Clarence Buchanan	Mech.	Corvallis	Benton
Arthur William Burton	Phar.	San Francisco, Cal.	
Lessie Pearl Bush	H. S.	Hoskins	Benton
Harry Palmer Cady	Mech.	Holbrook, Nebraska	
Ralph Harlan Cady	Phar.	Holbrook, Nebraska	
Anda Clarence Calvert	Agri.	JunctionCity	Lane
Hazel Louise Carlson	H. S.	St. Johns	Multnomah
Emil Elmo Carroll	Phar.	Union	Union
William Robert Carter	C. E.	Clatskanie	Columbia
Edith Hazel Casteel	L. C.	Yaquina	Lincoln
Collie Flint Cathey	Agri.	Woodburn	Marion
Alice Marie Cathey	Phar.	Woodburn	Marion
Ralph Orin Caves	Agri.	Hoskins	Benton
William Robb Chalmers	Mech.	ForestGrove	Washington
Vera Leahnor Chambers	Phar.	Corvallis	Benton
Donald Winthrop Chapman	Min.	Troutdale.	Multnomah
Sherman Alban Chappell	Phar.	Corvallis	Benton
Maribel Whitman Cheney	H. S.	Milwaukie	Clackamas
Bessie Irene Chipman	L. C.	The Dalles	Wasco
Bliss Lucine Clark	Agri.	Hood River	Wasco
John Clark	Mech.	Alicel	Union
Allan Henry Collette	Phar.	Univ. Park	Multnomah
Donald Louis Colvig	L. C.	Jacksonville	Jackson
Frank Wood Connell	Agri.	Hillsboro	Washington
Grace Elizabeth Connell	H. S.	Hillsboro	Washington
Robert Alvin Cook	Mech.	Albany	Linn
Laura Cottrell	L. C.	Portland	Multnomah
Bertha Leona Cramer	L. C.	Corvallis	Benton
Otheo Glenn Crawford	Agri.	Heppner	Morrow
Wren Clark Crews	C. E.	KlamathF'lls	Klamath

Charles Francis Cropp	Phar.	Baker City	Baker
Frank Elsworth Cross	C. E.	Hebo	Tillamook
Homer Morton Cross	Agri.	Hebo	Tillamook
Howard Cushman Cunningham	C. E.	Ft. Klamath	Klamath
Nettie Elsie Currin	H. S.	Heppner	Morrow
Amy Cyrus	H. S.	Crabtree	Linn
Bessie Guss Danneman	Phar.	Clem	Gilliam
Leonard Fred Darby	Phar.	Carmen, Oklahoma	
Gertrude Luella Davidson	H. S.	Ione	Morrow
Jessie Davidson	H. S.	Ione	Morrow
Robert Leroy Davidson	Min.	Union	Union
Harold Leslie Davis	L. C.	Hoquiam, Wash.	
John Emerson Davis	L. C.	Shedds	Linn
Ada DeArmond	L. C.	Beulah	Malheur
Roy DeArmond	Phar.	Independence	Polk
Estate Leroy Dick	Mech.	Hoquiam, Wash.	
Minnie Diven	L. C.	Vale	Malheur
Ezra Stephen Dixon	Min.	ForestGrove	Washington
Maud Erben Draper	H. S.	Greenhorn	Baker
Eugene Earl Dudley	Agri.	Athena	Umatilla
Mary Lillian Earnest	H. S.	Vernon	Lincoln
Belle Bertie Edwards	H. S.	Bellfountain	Benton
Bertha Beulah Edwards	H. S.	Bellfountain	Benton
Velma Ethel Edwards	H. S.	Mayville	Gilliam
Henry Detlef Eisman	Agri.	Grants Pass	Josephine
Harry Evans	Min.	Bourne	Baker
Fred Egerton Ewart	Mech.	Portland	Multnomah
Georgia Virginia Ewing	H. S.	Oswego	Clackamas
Karl William Farnsworth	Agri.	Heppner	Morrow
Henry Ward Farrell	Agri.	Scappoose	Columbia
Henry Pervine Fisher	Agri.	Haines	Baker
Raymond Henry Fleser	Mech.	Byron Centre, Michigan	
Russell Harrison Fleser	Mech.	Byron Centre, Michigan	
Nellie Fletcher	L. C.	McCoy	Polk
Robert Edmond Fletcher	Mech.	Ontario	Malheur
Thomas Edward Foster	Phar.	Athena	Umatilla
Ruby Fowells	H. S.	Fayette, Iowa	
Bertha Emmaline Fowles	L. C.	Mount'ndale	Washington

Henry Sidney French	Agri.	Corvallis	Benton
Carl Francis Galligan	Agri.	Hood River	Wasco
Viola Gardner	L. C.	Corvallis	Benton
Thomas Leigh Gatch	Mech.	Salem	Marion
Vincent Paul Gianella	Mech.	Honcut, California	
Beulah Gustavia Gilkey	H. S.	Montesano, Wash.	
Howard Gill	Agri.	Oregon City	Clackamas
Raymond Chase Gleason	Mech.	Sumpter	Baker
Agnes Maud Goodrich	H. S.	Dayton	Yamhill
Lloyd Roscoe Goodrich	C. E.	Dayton	Yamhill
Julius Gordon	Mech.	Portland	Multnomah
Harold Roscoe Graves	Phar.	Sumpter	Baker
Greta India Gray	L. C.	Arapahoe, Nebraska	
Martin James Gribble	Mech.	Mt. Hood	Wasco
Frederick Llewellyn Griffin	Agri.	Canby	Clackamas
Kenneth Burton Grimm	Mech.	Hubbard	Marion
Meril Eugene Groshong	Phar.	Enterprise	Wallowa
Bernhard John Groth	Mech.	Dundee	Yamhill
Etta Anna Hall	H. S.	Milwaukie	Clackamas
Harry Roy Hamilton	Agri.	Bend	Crook
Roswell Hamilton	Phar.	Burns	Harney
George Mar Hanan	Min.	Roseburg	Douglas
Violet Irene Hancock	L. C.	Cove	Union
Ethel Elanora Harpole	H. S.	JunctionCity	Lane
Philo Benjamin Hawley	Agri.	Wildwood	Lane
Clyde Crawford Hayden	Mech.	Alsea	Benton
George Stephen Hayes	Mech.	Halsey	Linn
Homer Harry Hayes	L. C.	Joseph	Wallowa
Chester Walter Henkle	L. C.	Corvallis	Benton
Alice Bernice Henness	L. C.	Gates	Marion
William Albert Hensley	C. E.	Troutdale	Multnomah
Bertha Emma Herse	H. S.	Corvallis	Benton
Beulah Grace Hewitt	L. C.	JunctionCity	Lane
John Elmer Higdon	Mech.	New Castle, Colorado	
John William Hiatt	L. C.	Heppner	Morrow
Lyle Verne Hendricks	Phar.	McMinnville	Yamhill
Roy Lawrence Hoag	Mech.	Hoquiam, Wash.	
Claire Lucretia Holgate	L. C.	Baker City	Baker

Clare Conrad Hollenberg	L. C.	Stutgart, Arkansas	
Earnest Adam Holmberg	C. E.	Portland	Multnomah
Josephine Holmes	L. C.	Corvallis	Benton
Dolph Hooghkirk	Mech.	Rainier	Columbia
Charles Harry Howard	Mech.	Bridal Veil	Multnomah
Merle George Howard	Phar.	Monroe	Benton
Callie Alma Howe	L. C.	Sheridan	Yamhill
Leland Barton Howey	L. C.	Coquille	Coos.
Charles Henry Hoyt	C. E.	Jefferson	Marion
Roy Alton Huber	Mech.	Scio	Linn
Floyd Jacob Huff	Phar.	Corvallis	Benton
Myra Eva Hukill	H. S.	Corvallis	Benton
Forrest Scott Ivanhoe	L. C.	La Grande	Union
Russell Samuel Jeffreys	Min.	Nome, Alaska	
Verne Lewis Johnson	L. C.	John Day	Grant
John Jacob Karstetter	Mech.	Silverton	Marion
Vera Kayler	H. S.	Molalla	Clackamas
Edythe Harriet Keady	H. S.	Corvallis	Benton
William Harrison Keady	Phar.	Corvallis	Benton
Ralph Adrian Keiser	Agri.	Spirit Lake, Iowa	
George Talburt Kelly	Min.	Greenhorn	Baker
John George Kelly, Jr.	Agri.	Eugene	Lane
Kate O'Connor Kelly	H. S.	Eugene	Lane
Lloyd Homer Kelty	Phar.	N. Yamhill	Yamhill
Eldon Wesley Kern	Min.	Portland	Multnomah
Lizzie Kester	L. C.	Sumpter	Baker
Mabel Harriette Kinnison	H. S.	Baker City	Baker
William Homer Kitchen	Min.	Sumpter	Baker
Herminia Knapp	H. S.	Ladu, Wash.	
James Koeber	Agri.	Sherwood	Washington
Worthy Aaron Lady	Mech.	Sheridan	Yamhill
Richard Landes	Mech.	Albany	Linn
Otto Carl Laue	Phar.	Portland	Multnomah
Ada Mae Lay	L. C.	Joseph	Wallowa
Myrtle Edna Lay	H. S.	Molalla	Clackamas
Roland Vivian Leep	Phar.	MyrtlePoint	Coos
John Donald Lines	Mech.	Albany	Linn
Zeph Lockwood	Min.	Helix	Umatilla

Grant Ulysess March	L. C.	Sheridan	Yamhill
Harold Dickson Marsh	L. C.	Portland	Multnomah
Arthur Blaine Mattley	Mech.	Corvallis	Benton
Siegfried Maurer	Min.	Eugene	Lane
Edythe Buhl McBride	L. C.	Athena	Umatilla
Fred Samuel McCall	Agri.	Salem	Marion
Max Adam McCall	Agri.	Scio	Linn
Nelson Felda McColl	Mech.	Gresham	Multnomah
Lillian McCready	L. C.	Suver	Polk
Russell Alfred McCully	Agri.	Joseph	Wallowa
Frederic Emmett McGrew	L.C.	Weston	Umatilla
Gertrude Elizabeth McHenry	L. C.	Corvallis	Benton
Raymond Dallas McKennon	Agri.	La Grande	Union
William Wallace McKenzie	Mech.	Portland	Multnomah
James Stewart McMahan	C. E.	Corvallis	Benton
Mabel Clare McNabb	H. S.	Ione	Morrow
Cecil Metcalf	Mech.	Portland	Multnomah
Frank Lester Michelbook	L. C.	McMinnville	Yamhill
Earl August Miebus	Mech.	Portland	Multnomah
Edyth Eleanore Miller	L. C.	Drewsey	Harney
George Henry Miller	Phar.	Corvallis	Benton
Vincent Irving Miller	Phar.	Burns	Harney
Rawla Miller	Mech.	Athena	Umatilla
Max Elbert Mitchell	C. E.	Portland	Multnomah
Kate Irene Moore	L. C.	Echo	Umatilla
Ralph Barney Moore	Mech.	North Yakima, Wash.	
Donald Fain Morgan	Mech.	Portland	Multnomah
Ira Monroe Morgan	Mech.	Ione	Morrow
John Armour Muldrick	C. E.	Canyon City	Grant
Claude Henry Murphy	Min.	Independence	Polk
Clarence Sheley Murray	C. E.	North Yakima, Wash.	
Roscoe Neal	C. E.	Baker City	Baker
Evaline Newkirk	H. S.	Oregon City	Clackamas
Ira Edward Newsome	Phar.	Rainier	Columbia
Adolph Nilsson	Agri.	Portland	Multnomah
Roy Nichols	Phar.	Portland	Multnomah
Arthur O'Connor	Mech.	Montague, California	
Howard O'Connor	Mech.	Montague, California	

Estelle Beatrice Olsen	H. S.	Warrenton	Clatsop
Ralph Foster O'Rourke	Min.	Sumpter	Baker
Glen Patterson	Mech.	The Dalles	Wasco
Jack Francis Pernot	Mech.	Corvallis	Benton
Nona Pansy Peters	Phar.	Corvallis	Benton
Ivy Cecil Peterson	L. C.	Beaverton	Washington
Henry John Pfandhoefer	Mech.	Falls City	Polk
Ralph Hillar Pierce	Mech.	Harrisburg	Linn
Bessie Evalina Pogue	H. S.	Ontario	Malheur
Ralph Victor Poindexter	Phar.	Prineville	Crook
Allyne Francis Pratt	Min.	Portland	Multnomah
Horace Minor Propst	Mech.	Albany	Linn
Irving Province	L. C.	Mitchell	Wheeler
Stanley Robert Ray	Mech.	Sedgruick, Kansas	
Marcella Elva Reed	H. S.	La Grande	Union
Nollie Frank Reed	Phar.	Burns	Harney
Jay Merritt Reynolds	Agri.	La Grande	Union
William Oscar Reith	Agri.	Astoria	Clatsop
Lester Clifford Rhodes	Min.	Parker	Polk
Elsie Mae Rice	L. C.	Clear Lake, Iowa	
Denzel Lee Ridgeway	Mech.	Buell	Polk
Katie Maysel Ridgeway	H. S.	Buell	Polk
George Rieben	Agri.	Greenville	Washington
Lillie Riggs	H. S.	Vancouver, Wash.	
Hazel Ripley	H. S.	Portland	Multnomah
Alfhild Romtvedt	H. S.	Portland	Multnomah
Henry Earle Rooper	Min.	Antelope	Wasco
John August Rooper	Agri.	Antelope	Wasco
Gordon Rosendorf	Phar.	Corvallis	Benton
Otto Harrison Schrader	C. E.	Tillamook	Tillamook
John Godfrey Schroeder	L. C.	Mt. Tabor	Multnomah
Raymond Seely	Agri.	Wilsonville	Clackamas
Wilson Alvi Sellwood	C. E.	Milwaukie	Clackamas
Henry McGee Shannon	Agri.	Union	Union
Audie Wave Shelton	L. C.	Scio	Linn
Otheo Weller Shields	L. C.	McCoy	Polk
Robie Floyd Shull	Agri.	MyrtlePoint	Coos
Earl Jackson Silva	Mech.	Rainier	Columbia

Esther Mercy Silva	L. C.	Rainier	Columbia
Georgia Anna Silva	L. C.	Rainier	Columbia
Earl Chester Simmons	Phar.	Silverton	Marion
Richard William Skibbe	C. E.	The Dalles	Wasco
Carroll Thornton Smith	Phar.	Glendale	Douglas
Roy Sorenson	Mech.	Mt. Tabor	Multnomah
Mamie Warren Sparkman	H. S.	Woodland, California	
Roy Herbert Sprague	Mech.	Oregon City	Clackamas
Edith Madeline Sproat	H. S.	Hood River	Wasco
Marion Louise Sproat	L. C.	Hood River	Wasco
Claire Weltha Starr	L. C.	JunctionCity	Lane
Clyde Everett Starr	Agri.	JunctionCity	Lane
Ruby Starr	H.S.	Albany	Linn
Stanley Stevenson	Phar.	Halsey	Linn
William Thomas Stratton	Phar.	Estacada	Clackamas
Marcus Struve	Phar.	Pendleton	Umatilla
Daniel Murry Sutherland	Agri.	Shedd	Linn
Herbert George Suttle	Agri.	Mt. Tabor	Multnomah
Samuel Pliney Sutton	Mech.	Portland	Multnomah
William Dantzler Sutton	Mech.	Portland	Multnomah
Maurice Earl Taber	Mech.	Sheridan	Yamhill
John Taylor	Phar.	North Yakima, Wash.	
Nash Taylor	L. C.	Hollister, California	
Zach Lafayette Taylor	L. C.	Corvallis	Benton
Ruth Thayer	H. S.	Rainier	Columbia
Clifford Herbert Thomas	Mech.	Dee	Wasco
Elmer Golden Thomas	For.	La Grande	Union
George Henry Thomas	Mech.	Dee	Wasco
Aura Ammarillas Thomson	H. S.	Echo	Umatilla
Frank Wilson Thompson	Min.	Lowen	Harney
Harrison Elverton Thompson	For.	Portland	Multnomah
Edwin Thornton	Phar.	Roseburg	Douglas
Jesse Almond Tiffany	Agri.	Portland	Multnomah
Carl Cliffton Titus	Mech.	Kingston	Linn
Jennie Belle Tom	L. C.	Alsea	Benton
William Roy Tompkins	Mech.	Athena	Umatilla
Oliver Todd	Agri.	Sherwood	Washington
William Alfred Toner	Mech.	Yaquina	Lincoln

Benjamin Blaine Totten	For.	Corvallis	Benton
Leighton Jesse True	Agri.	Mason City, Iowa	
Laura Van Meter	H. S.	Hoskins	Benton
Chester Andrus Vincent	C. E.	St. Johns	Multnomah
Nina May Wall	Phar.	Glendale	Douglas
Walter Walling	Mech.	Oswego	Clackamas
Edna Watkins	L. C.	Corvallis	Benton
Robert Stewart Watts	Mech.	Vancouver, Wash.	
Arthur M. Weatherford	L. C.	Dayton, Wash.	
George Ernest Whitcomb	Min.	Foster	Linn
Alfred Monroe White	Agri.	CottageGrove	Lane
Georgia Belle White	H. S.	Corvallis	Benton
Arthur Edwin Whitman	Phar.	Woodburn	Marion
Leroy Owen Wicklund	Agri.	Vale	Malheur
William Henry Wilhelm	L. C.	The Dalles	Wasco
Floyd James Williams	Mech.	Roselawn, California	
Frank Floyd Williams	Phar.	Monroe	Benton
Pearl Irene Williams	H. S.	JordanV'l'y	Malheur
Elmer Benton Williamson	L. C.	Albany	Linn
Robert Vernon Williamson	Agri.	Wells	Benton
Reuben Ernest Wills	L. C.	Heppner	Morrow
Franklin Jackson Wilson	Phar.	Canyonville	Douglas
Lena May Wilson	H. S.	New Plymouth, Idaho	
Gilbert Fayette Winslow	Min.	Oysterville, Wash.	
Ralph Withycombe	Mech.	Portland	Multnomah
Carl Wolff	Mech.	Portland	Multnomah
Mabel Evalena Wood	H. S.	Corvallis	Benton
Alfred Mason Woodruff	Agri.	Cleveland	Douglas
Richard Wright	Phar.	Athena	Umatilla
Donald Worthington Yantis	Phar.	Salem	Marion
Harvey August Yeager	Mech.	Heppner	Morrow
Cora Myrtle Yocum	H. S.	Estacada	Clackamas
Henry Roderick Zimmerman	Mech.	The Dalles	Wasco
Francis Howard Zinser	Agri.	Oregon City	Clackamas

SUB-FRESHMEN.

Name.	Postoffice.	County.
Chancie Jacob Allison	Bridal Veil	Multnomah
Charles Eric Armstrong	Corvallis	Benton
Walter McClure Babb	Maysville, Arkansas	
Mabel Mary Baker	Albany	Linn
James Linnwood Batchelder	Hillsboro	Washington
Claud Carthel Baynard	Silverton	Marion
Lloyd Vernon Bell	Mt. Tabor	Multnomah
Roy Armor Bowen	Heppner	Morrow
Claude LeRoy Boyle	St. Johns	Multnomah
Roy Edwin Brague	Towanda, Pennsylvania	
Earl Chase Brooks	Corvallis	Benton
Robert Vernon Brownell	Umatilla	Umatilla
William Burson Cate	Hillsboro	Washington
Mary Enid Cate	Hillsboro	Washington
George Henry Chamberlain	Troutdale	Multnomah
Verner Webster Chambers	Ontario	Malheur
Harry Romine Clark	Drewsey	Harney
Luther Nip Conley	Cove	Union
Benjamin Harrison Cooper	Corvallis	Benton
John Madison Copeland	Ft. Klamath	Klamath
Ralph Jeremiah Cresswell	Pendleton	Umatilla
Oral Elbert Crowe	Lorane	Lane
George Blodgett Crawford	Tallman	Linn
Ralph Crawford	Tallman	Linn
Roy Franklin Crawford	Tallman	Linn
Melville Even Davis	Vale	Malheur
Gusta DeLaunay	Comstock	Douglas
Harry Divilbliss	Gresham	Multnomah
Gertrude Alice Dorsey	Dayton	Yamhill
Clara Drinkard	Halsey	Linn
Luther Andrew Duckworth	Sumpter	Baker
Clifford Dunn	Cloverdale	Tillamook
Jesse Boyd Edington	Helix	Umatilla
Otto Herman Elmer	Mulino	Clackamas
Archie Guy Erskine	Lebanon	Linn

Jackson Kenelem Fairchild	Portland	Multnomah
Verna Sarah Farrell	Scappoose	Columbia
Nellie Martha Farrell	Scappoose	Columbia
Birdie Emaline Fletcher	Ontario	Malheur
Frank Farley Fletcher	Ellsworth, Wash.	
Eliza Josephine Floyd	Wren	Benton
Walter Allen Foster	Prineville	Crook
Dollie Fouts	Clatskanie	Columbia
Bradford Fowles	Mountaindale	Washington
Chester Newton Frakes	Salem	Marion
James Edward French	Corvallis	Benton
Fred Marion Gay	Tipton, Iowa	
William Moore Getty	Buena Vista	Polk
John Justice Golden	La Grande	Union
Frank Earl Graham	Houlton	Columbia
Fred Newton Graves	Sheridan	Yamhill
Dale Gurley	Dallas	Polk
James Harrison Haight	Little Shasta, California	
Edward Brown Haley	Hoquiam, Wash.	
Frank William Halley	Alicel	Union
Fred Eric Hansen	Kerby	Josephine
Ida Elizabeth Hansen	Kerby	Josephine
Lindon William Hanson	Portland	Multnomah
Flora Hassett	Garneill, Montana	
Herman Emil Hector	Corvallis	Benton
Edna Henness	Gates	Marion
John Everand Hiatt	Portland	Multnomah
Harry Douglas Hobson	Fox Valley	Linn
Claude Elgin Howard	Bridal Veil	Multnomah
Floyd Homer Howard	Malheur	Malheur
George Clarence Howard	Bridal Veil	Multnomah
Zoa Irwin	Estacada	Clackamas
Gladys Myrtle Jackson	Shedds	Linn
Arthur Freeman Jette	Champoeg	Marion
Leonard Johnson	Stayton	Marion
Franklin Blair Jones	Pendleton	Umatilla
John Ketels	Clackamas	Clackamas
Tommy Burling Kinnicutt	Myrtle Point	Coos

Claude Adelbert Knapp	Camas, Wash.	
Earl Victor Knapp	Ontario	Malheur
Roy Belding Knapp	Ontario	Malheur
Nellie Kurth	Portland	Multnomah
Earnest Augustus Lane	Portland	Multnomah
John Ammons Langford	Salem	Marion
Harold Bond Looney	Jefferson	Marion
Elmer Ellsworth Lyman	La Grande	Union
Frank William Mahony	Gervais	Marion
George Michael Mahony	Gervais	Marion
Mary Margaret McCall	Scio	Linn
Forrest William McGinnis	Moro	Sherman
Iva Belle McGinnis	Moro	Sherman
Lester Hawley Miles	Portland	Multnomah
Elmer Berton Mires	Cove	Union
Clyde Martin Morris	Oretown	Tillamook
Nellie Lee Nail	Hillsboro	Washington
Ivar Nelson	Ione	Morrow
Sidney O'Connor	Montague, California	
Doris Eyfelle Olsen	Warrenton	Clatsop
Earle Arney Olsen	Warrenton	Clatsop
Edna Gertrude Peck	Elgin, Illinois	
Frank Richard Pendergrass	Amity	Yamhill
John Clyde Plankington	Perrydale	Polk
Frank Edgar Porter	Pendleton	Umatilla
Philip Porter	St. Johns	Multnomah
Ralph Earl Porter	Pendleton	Umatilla
Clay Prather	Monmouth	Polk
Nash Willard Quinlan	Portland	Multnomah
Elta Marie Raber	Corvallis	Benton
Roy Rawson	Vancouver, Wash.	
Earl James Rhea	Ione	Morrow
Cecil Arleigh Russel	Elgin	Union
Anna Merle Scheurer	Butteville	Marion
Guy Adelbert Shadduck	Dayton	Yamhill
Obil Shattuck	Fort Klamath	Klamath
Victor Wright Shaw	Canyonville	Douglas
Edgar Adolf Sorenson	Harrisburg	Lane

John Wyatt Surry	Lyons	Linn
Margaret Nellie Sutherland	Shedds	Linn
Lawrence Edgar Swan	Hubbard	Marion
Nellie Taylor	Corvallis	Benton
David Sloan Thomson	Echo	Umatilla
Benjamin Garrie Thompson	Shedds	Linn
James Jay Thompson	Macleay	Marion
Joseph Tracy	Lakeview	Lake
Clifford Trask	Scio	Linn
George Robert Tripp	Hood River	Wasco
Stanley Everett Tripp	Myrtle Creek	Douglas
Albert Utzinger	Seaside	Clatsop
Emma Alvina Vick	Molalla	Clackamas
Jesse Robert Warfield	Ione	Morrow
Orin Roy West	Mt. Tabor	Multnomah
Ralph Lovell West	Westport	Clatsop
William David Winniford	Wren	Benton
Harry David Wolgamott	Suver	Polk
Ira Daniel Wonderly	Rainier	Columbia
Dorris Shelby Young	Sherwood	Washington
Norris William Young	Sherwood	Washington

SPECIALS.

Name.	Postoffice.	County.
Nihi Kanta Banerji	Calcutta, India	
Hattie Virginia Bennett	Wildwood	Lane
Hari Singh Chima	Mitranwati, India	
Emma Angeline Crabill	Baker City	Baker
Inez Munkers	Scio	Linn
Wintha Rudolph Palmer	Dallas	Polk
Laura Frances Pratt	Mound City, Missouri	
Mohammed Abdul Rashid	Aligarh, India	
Pala Singh	Dharmkota, India	
Mula Raj Soi	Batala, India	

MUSIC AND OTHER STUDIES.

Edna Grace Allen	Corvallis	Benton
Frances Imogene Gill	Scio	Linn
Jessie Esther Imbler	Enterprise	Wallowa

Blanche Jeffreys	Nome, Alaska	
Zeta Alma Johnson	Scio	Linn
Agnes Marie Langer	Sherwood	Washington
Alice Gertrude McBee	Corvallis	Benton
Emma McCann	Wilderville	Josephine
Clifford Hanley Moore	Portland	Multnomah
Loto Beulah Peck	Ione	Morrow
Helen Loretta Pelland	St. Paul	Marion
Emma Augusta Purdy	Gaston	Washington
Vena Rickard	Corvallis	Benton
Irene Brown Sproat	Hood River	Wasco
Farris Edith Stocker	Shaniko	Wasco

AGRICULTURE AND DAIRYING—SHORT COURSES.

Joseph H. Albert	Salem	Marion
E. C. Armstrong	Jefferson	Marion
Rasmus A. Anderson	Portland	Multnomah
S. D. Barney	Oregon City	Clackamas
Frank Barter	Crabtree	Linn
J. F. Barter	Crabtree	Linn
John Belloni	Coquille	Coos
Clarence S. Bowne	Aumsville	Marion
L. L. Brooks	Corvallis	Benton
G. R. Castner	Hood River	Wasco
Claus Christiansen	Toledo	Lincoln
Martin Clausen	Coquille	Coos
V. Cladek	Scio	Linn
W. A. Cladek	Scio	Linn
Alvah Custer	Coquille	Coos
Emil O. Dallenbach	Portland	Multnomah
Mrs. F. Day	Waldport	Lincoln
Joseph Edwards	Monroe	Benton
W. J. Edwards	Mayville	Gilliam
John A. Gilkey	Corvallis	Benton
A. C. Goodrich	North Yamhill	Yamhill
Ben D. Graf	Hillsboro	Washington
O. Gustafsen	Corvallis	Benton
Edward Halloway	Brownsville	Linn
Leon D. Harris	Medford	Jackson

Leonard Y. Hicks	Astoria	Clatsop
Lee Hawley Hoffman	University Park	Multnomah
William M. Hyde	Brooklyn, Iowa	
Jacob B. Kissling	Ione	Morrow
A. J. Lewis	Oregon City	Clackamas
Philip E. Linn	Estacada	Clackamas
C. E. Logsden	Corvallis	Benton
Charles Meserve	Grants Pass	Josephine
Ross E. Miller	Silverton	Marion
John McLeod	Chemawa	Marion
Fred McKendree	Klamath Falls	Klamath
Everett E. McDonald	Dayton	Yamhill
Peter Madsen	Cornelius	Washington
James B. Nunn	Dallas	Polk
Willis Oddy	Coquille	Coos
H. T. Pankey	Central Point	Jackson
Willie E. Redberg	Oretown	Tillamook
J. H. Reid	Milwaukie	Clackamas
Peter S. Rice	Mapleton	Lane
E. C. Roberts	Albany	Linn
Harold G. Rumbaugh	Albany	Linn
Lloyd Scriber	La Grande	Union
G. H. Shelton	Coquille	Coos
P. K. Skinner	Newberg	Yamhill
Alfred Smith	Coquille	Coos
Harry E. Solgard	Hillsboro	Washington
John Stewart	Victoria, B. C.	
John S. Taylor	Coquille	Coos
Joseph W. Thornberg	Astoria	Clatsop
Albert L. Weddle	Sweet Home	Linn
H. G. Wilson	Payette, Idaho	

SCHOOL OF MUSIC.

PIANO.

Name.	Postoffice.	County.
Clara Baker	Corvallis	Benton
Josephine Benham	Bellfountain	Benton
Ruby Cadle	Prineville	Crook

Vera L. Chambers	Corvallis	Benton
James R. Chambers	Kings Valley	Benton
Marion Chappell	Woodburn	Marion
Marie Cathey	Corvallis	Benton
Donald Colvig	Medford	Jackson
Jessie Davidson	Ione	Morrow
Minnie Diven	Vale	Malheur
Eythel Downer	Corvallis	Benton
Maud Erben Draper	Greenhorn	Baker
Margaret Fowells	Corvallis	Benton
Imogene Gill	Scio	Linn
Blanche Hammel	Corvallis	Benton
R. L. Hoag	Hoquiam, Wash.	
Jessie Imbler	Enterprise	Wallowa
Mary Jones	Silverton	Marion
Leta Johnson	Scio	Linn
Edith Keady	Corvallis	Benton
Agnes May Langer	Sherwood	Washington
Otto Karl Lane	Portland	Multnomah
Maud E. Litch	Enterprise	Wallowa
Emma McCann	Grants Pass	Josephine
Adah McDonald	Woodburn	Marion
Dora Mellon	Mountain Home, Idaho	
Clifford H. Moore	Portland	Multnomah
Inez Munkers	Scio	Linn
Clara Mills	Corvallis	Benton
Gertrude Nolan	Corvallis	Benton
Mrs. F. C. McReynolds	Independence	Polk
Beulah Lota Peck	Ione	Morrow
Emma Purdy	Gaston	Washington
Helen Pelland	St. Paul	Marion
Marjorie E. Richards	Farmington, N. H.	
Vena Rickard	Inavale	Benton
Edna May Russ	Ashland	Jackson
G. A. Roberts	Ashland	Jackson
Irene Sproat	Hood River	Wasco
Edith Sproat	Hood River	Wasco
Farris E. Stocker	Shaniko	Wasco

Georgia Silva	Rainier	Columbia
Esther Silva	Rainier	Columbia
Alma Watson	Centralia, Wash.	
Winona Woodward	Corvallis	Benton
Bertha Witman	Lebanon	Linn

BAND INSTRUMENTS.

(Members of the band are not classed as Music Students unless they take private lessons in this study.)

G. M. Aupperle	Jefferson	Marion
Norris Everard Chapin	Walla Walla, Wash.	
Dewalt Quinn Elrod	Moro	Sherman
Otto Karl Lane	Portland	Multnomah
Marshall J. Lazelle	Oregon City	Clackamas
John B. McKennon	Alicel	Union
Ralph Earl Porter	Pendleton	Umatilla
Roy Wilbur Price	Scappoose	Columbia
L. H. Stone	Cleone	Multnomah

VIOLIN.

Edward Everett Allen	Myrtle Creek	Douglas
Samuel Armitage	Corvallis	Benton
Thomas F. Blackledge	Corvallis	Benton
Arthur George Bouquet	Corvallis	Benton
Edward Cleveland Calloway	Ontario	Malheur
Allan Collette	Portland	Multnomah
Fred Egerton Ewart	Portland	Multnomah
Henry Sidney French	Corvallis	Benton
Frank Edward Hall	Milwaukie	Clackamas
Lyle Hendricks	McMinnville	Yamhill
Arthur Franklin Jette	Champoeg	Marion
William Homer Kitchen	Sumpter	Baker
William Lester Marrs	Oregon City	Clackamas
John McDougal	Corvallis	Benton
Henry Pfandhoefer	Falls City	Polk
Horace Minor Propst	Albany	Linn
Marie Rita Staehr	Forest Grove	Washington
Carl Marion Stebinger	Portland	Multnomah
Marcus Struve	Pendleton	Umatilla

Harrison Everdon Thompson	Portland	Multnomah
Gilbert Fayette Winslow	Oysterville, Wash.	

VOCAL MUSIC.

Gustave Abraham	Albany	Linn
Edna Grace Allen	Corvallis	Benton
John Frederick Allen	Corvallis	Benton
Ralph Wilmer Allen	Rickreall	Polk
Arthur Rex Barnett	Portland	Multnomah
Jeanette Blackledge	Corvallis	Benton
Roy Edwin Brague	Towanda, Pennsylvania	
Elmer Clay Brock	Hood River	Wasco
Ruth Cadle	Prineville	Crook
Edward Cleveland Calloway	Ontario	Malheur
Burson Cate	Hillsboro	Washington
Ralph Orin Caves	Kings Valley	Benton
George Chamberlain	Troutdale	Multnomah.
Bliss Lucine Clark	Hood River	Wasco
John Jay Clark	Portland	Multnomah
Oliver Kenneth Cole	Turner	Marion
Otheo Glenn Crawford	Heppner	Morrow
Burton L. Cunningham	Ft. Klamath	Klamath
Verna Farrell	Scappoose	Columbia
Ada Finley	Junction City	Lane
Chester N. Frakes	Salem	Marion
Blanche Hammell	Corvallis	Benton
Arthur D. Hill	Hood River	Wasco
Leland B. Howey	Coquille	Coos
Ernest A. Hudson	Milton	Umatilla
James G. Kelly	Lents	Multnomah
Mary Agnes Langer	Sherwood	Washington
William E. Lowell	Pendleton	Umatilla
Fred D. Luse	Oregon City	Clackamas
William Lester Marrs	Oregon City	Clackamas
Nellie Marvin	Corvallis	Benton
Gertrude Alice McBee	Corvallis	Benton
David MacMillan	Sellwood	Multnomah
Rawla A. Miller	Athena	Umatilla

Donald Fain Morgan	Portland	Multnomah
Clifford Moore	Portland	Multnomah
Myrtle Ora Moore	Corvallis	Benton
Charles Parker	Salem	Marion
Loto Peck	Ione	Morrow
Helen Pelland	St. Paul	Marion
Marie Pelland	St. Paul	Marion
Philip Pelland	St. Paul	Marion
Edith Jane Pernot	Corvallis	Benton
Colma Marjorie Pinkerton	Corvallis	Benton
Asa Holcolm Post	Dayton	Yamhill
Roy Wilber Price	Scappoose	Columbia
Irving Province	Mitchell	Wheeler
Elta Raber	Corvallis	Benton
Marjorie Richards	Farmington, New Hampshire	
Vena Rickard	Corvallis	Benton
Faye Roadruck	Irrigon	Morrow
John Godfrey Schroeder	Portland	Multnomah
Mamie Scoggins	Laidlaw	Crook
John Seits	Corvallis	Benton
Audie Shelton	Scio	Linn
Lulu Spangler	Corvallis	Benton
Mamie Sparkman	Woodland, California	
Marie Staehr	Forest Grove	Washington
Carl M. Stebinger	Portland	Multnomah
Farris Stocker	Shaniko	Wasco
Louis C. Stone	Cleone	Multnomah
Edna May Strong	Corvallis	Benton
Darwin Greene Thayer	Rainier	Columbia
James Jay Thompson	Macleay	Marion
Jesse Tiffany	Portland	Multnomah
Rupert Wall	Early	Sherman
Alma Watson	Centralia, Wash.	
Charles A. Watts	Vancouver, Wash.	
William D. Winniford	Wren	Benton
Ralph W. Worstell	La Grande	Union
Howard Zinser	Oregon City	Clackamas

RECAPITULATION.

	Men	Women	Dept. Total	Class Total
GRADUATES	6	8		14
SENIORS—				
Mining	4		4	
Mechanical	2		2	
Electrical	19		19	
Literary Commerce	3	5	8	
Household Science		9	9	
Agricultural	13		13	
Pharmacy	9	1	10	
Special in Chemistry	1		1	
Total seniors				66
JUNIORS—				
Mechanical	6		6	
Electrical	15		15	
Mining	7		7	
Literary Commerce	1	4	5	
Household Science		7	7	
Agricultural	2		2	
Pharmacy	4		4	
Total juniors				46
SOPHOMORES—				
Mechanical	41		41	
Mining	10		10	
Literary Commerce	14	7	21	
Household Science		13	13	
Agricultural	18		18	
Pharmacy	14	2	16	
Civil Engineering	15		15	
Forestry	2		2	
Total sophomores				136
FRESHMEN—				
Mechanical	76		76	
Agricultural	47		47	
Household Science		52	52	
Literary Commerce	27	36	63	
Pharmacy	42	6	48	
Mining	20		20	
Civil Engineering	18		18	
Forestry	3		3	
Total freshmen				327
SUB-FRESHMEN	107	25		132
SPECIAL	6	18		24
SPECIAL AGRICULTURE AND DAIRYING	55	1		56
MUSIC				
Vocal	44	27		71
Piano	6	40		46
Violin	21			21
Band Instruments	9			9
STUDENTS COUNTED TWICE				948
Music—Vocal	42	18		
Piano	4	25		
Violin	17			
Band Instruments	9			
Total				115
Number of students in college	615	218		833

Students Classified by Courses of Study.

MECHANICS.		
Seniors	2	
Juniors	6	
Sophomores	41	
Freshmen	76	
ELECTRICAL ENGINEERING.		
Seniors	19	
Juniors	15	159
HOUSEHOLD SCIENCE.		
Seniors	9	
Juniors	7	
Sophomores	13	
Freshmen	52	81
AGRICULTURE.		
Seniors	13	
Juniors	2	
Sophomores	18	
Freshmen	47	80
PHARMACY.		
Seniors	10	
Juniors	4	
Sophomores	16	
Freshmen	48	78
SPECIAL IN CHEMISTRY.		
Seniors		1
LITERARY COMMERCE.		
Seniors	8	
Juniors	5	
Sophomores	21	
Freshmen	63	97
MINING.		
Seniors	4	
Juniors	7	
Sophomores	10	
Freshmen	20	41
CIVIL ENGINEERING.		
Sophomores	15	
Freshmen	18	33
FORESTRY.		
Sophomores	2	
Freshmen	3	5
GRADUATES		14
SPECIAL STUDENTS		24
SUB-FRESHMEN		132
DAIRYING & AGRICULTURE		56
MUSIC		147
GRAND TOTAL		948
COUNTED TWICE.		
Music		115
NUMBER OF STUDENTS		833

Comparative Statement of Enrollment.

Year.	*Music, Special.*	*Preparatory.*	*Freshmen.*	*Sophomores.*	*Juniors*	*Seniors*	*Graduate Students.*	*Special.*	*Dairying.*	*Total.*
1888–1889	.....	36	33	14	14	0	0	0	.....	97
1889–1890	.....	67	55	17	6	0	6	0	.....	151
1890–1891	.....	76	83	24	15	0	3	0	.....	201
1891–1892	.....	86	63	28	19	9	3	0	.....	208
1892–1893	.....	98	123	31	18	7	5	0	.....	282
1893–1894	.....	36	103	71	21	5	4	0	.....	240
1894–1895	.....	47	85	64	52	13	0	0	.....	261
1895–1896	.....	80	175	63	54	9	14	2	.....	397
1896–1897	.....	*Sub-*	157	80	29	17	11	22	.....	316
1897–1898	.....	*Fresh-*	151	75	45	26	15	24	.....	336
1898–1899	.....	*men.*	164	79	30	36	15	14	.....	338
1899–1900	.....	42	145	74	40	36	20	48	.....	405
1900–1901	.....	44	177	72	42	37	9	55	.....	436
1901–1902	14	38	247	83	30	38	10	28	.....	488
1902–1903	21	54	232	97	40	36	12	32	17	541
1903–1904	48	85	191	80	46	39	3	28	10	530
1904–1905	29	75	304	97	36	49	11	33	46	680
1905–1906	50	110	293	104	46	49	18	37	28	735
1906–1907	32	132	327	136	46	66	14	24	56	833

Students Classified by Counties, States and Foreign Countries.

Baker	20	Lincoln	7
Benton	115	Linn	59
Clackamas	39	Malheur	24
Clatsop	12	Marion	43
Columbia	16	Morrow	24
Coos	14	Multnomah	89
Crook	6	Polk	27
Curry	0	Sherman	9
Douglas	17	Tillamook	8
Gilliam	6	Umatilla	23
Grant	3	Union	27
Harney	7	Wasco	34
Jackson	6	Washington	35
Josephine	6	Wallowa	8
Klamath	9	Wheeler	3
Lake	1	Yamhill	30
Lane	20		

Number of counties in Oregon	33
Total number of counties represented	32
Whole number of students from Oregon	747
Arkansas	2
Alaska	2
British Columbia	1
California	9
Colorado	1
Idaho	4
Illinois	2
India	6
Iowa	19
Kansas	1
Michigan	2
Missouri	2
Montana	1
New Hampshire	1
Nebraska	9
New Jersey	1
Oklahoma	1
Pennsylvania	1
Washington	30
Total	833

ALUMNI DIRECTORY, 1907.

John Fulton, '92.....President, Corvallis, Oregon
Wm. H. Wicks, '04.....Vice President, Corvallis, Oregon
Mrs. Lucile Buxton, '05.....Secretary, Corvallis, Oregon
Mrs. Olive McKellips, '95.....Treasurer, Corvallis, Oregon

1870.

James K. P. Currin, B. S., Cottage Grove, Ore.; Surveyor.
Robert M. Veatch, B. S., Cottage Grove, Ore.; Merchant; ex-Register U. S. Land Office; ex-State Senator.
Alice E. Biddle-Moreland, B. S., Healdsburg, Cal.

1871.

George F. Burkhart, B. S., Lebanon, Ore.; Farmer.
Hugh McNary Finley, A. B., Junction City, Ore.; Farming.
James D. Fountain, B. S., Portland, Ore. (255 Thirteenth Street); with Southern Pacific.
William Riley Privett, B. S.; died 1901.
Mary Harris-Whitby, B. S., Corvallis, Ore.
Fannie J. Kendall-Henkle, B. S.; died 1873.

1872.

Thomas C. Alexander, B. S.; died 1884.
John Eglen, B. S.; died 1877.
Rose Jacobs-Selling, B. S., Corvallis, Ore.
Alonzo Jacob Locke, B. S.; died 1904.
James K. Weatherford, B. S., Albany, Ore.; Attorney-at-Law; President Board of Regents, O. A. C.

1873.

Leander N. Liggett, B. S., Prineville, Ore.; Teacher.
Clara M. Thayer-Harding, B. S., Corvallis, Ore.
William Franklin Herrin, B. S., San Francisco, Cal.; Attorney-at-Law; Chief Counsel Southern Pacific Railroad, offices Flood Building.
Oscar L. Ison, B. S., Baker City, Ore.; Lawyer.

1874.

John R. Bryson, B. S.; died 1897.
Thomas H. Crawford, B. S.
Emmett H. Taylor, B. S., Corvallis, Ore.; Dentist.
Emma Thayer-Rice, B. S.; died 1891.
George A. Grimes, Harrisburg, Ore.; Surveyor and Farmer.
William C. Crawford; died 1900.

1875.

Reuben A. Fuller, B. S., Independence, Ore.; Farmer and Teacher.
Phillip Edward Linn, B. S., Estacada, Ore.; Farmer.

1876.

Minnie M. White-Arnold, B. S., Berkeley, Cal.
Franklin Cauthorn, A. M., Portland Ore.; M. D., 1878; Surgeon.
Isaac Jacobs, B. S.; died 1879.
George P. Lent, B. S., Portland, Ore. (205½ East Morrison Street); Lawyer.
Addie M. Allen-Thompson, B. S., Seattle, Wash.
Newton A. Thompson, B. S., Seattle, Wash.; Assistant Labor Commissioner.

1878.

Laura Thompson-Booth, B. S., Newport, Ore.
Elvin J. Glass, B. S., Helena, Mont.; Section Director, U. S. Weather Bureau.
Samuel T. Jeffries, A. B., Portland, Ore.; Lawyer.
Moses S. Neugass, B. S., San Francisco, Cal. (432-434 Fourteenth Street); West Coast Furniture Manufacturing Co.
Frederick W. Vincent, B. S., Pendleton, Ore.; Physician.

1879.

Dayton Elliott, B. S.; deceased.
Marion R. Elliott, B. S., Prineville, Ore.; Lawyer.
Bartholomew T. Soden, B. S., Portland, Ore. (342 Russell Street); Merchant.
Ernest White, A. M.; died 1881.

1880.

Lillian Glass, A. B., Corvallis, Ore.; Teacher.
Edgar Grimm, B. S., Nome, Alaska; Lawyer.
Hattie M. Hanna-Hovendon, B. S., Portland, Ore.
Shubel G. McCann, A. B.; Surveyor.
William E. Yates, A. M., Vancouver, Wash.; Lawyer.

1881.

Elmer E. Charman, A. B.; died 1905.
T. Leonard Charman, B. S., Oregon City, Ore.; Druggist.
Ida Burnett-Callahan, B. S., Corvallis, Ore.; Assistant Professor English, O. A. C.
Jessie L. Taylor-Lesh, B. S.; died 1900.

1882.

Bertha Neugass-Greenberg, A. B., San Francisco, Cal. (2293 Franklin Street.)
Alice M. Horning, B. S., Mesilla Park, N. M.; Professor Domestic Science.
Eda Jacobs, A. B., Corvallis, Ore.
William Y. Masters, A. M., Portland, Ore. (675 E. Madison Street); Lawyer.
Nettie Spencer, B. S., Berlin, Germany; Teacher of English.
Abbie Wright, B. S., Portland, Ore.; Teacher.

1883.

William G. Emery, A. B., Vancouver, Wash.; Photographer.
William H. Holman, B. S., Minneapolis, Minn.; Proprietary Medicines.
George B. Hovendon, B. S., Portland, Ore.; Merchant.

1884.

Lizzie J. Bayley, A. B., Salem, Ore.; Clerk.
David H. Glass, A. B., Oregon City, Ore.; Merchant.
Isador Jacobs, A. B., Portland, Ore. (60 Third Street); Traveling Salesman.
William E. Newton, A. B.; died 1901.
Herbert G. Ray, A. B., Portland, Ore. (Third and Morrison Streets); Pharmacist.

1885.

Alonzo Allen, A. B., Portland, Ore. (Corner Sixteenth and Marshall Streets); Druggist.

Andrew S. Buchanan, B. S., New York City (16 East Twenty-third Street); Assistant Manager and Cashier New York Viavi Company.

Henrietta Harris, B. S., Portland, Ore. (560 Hoyt Street); Kindergarten Teacher.

J. E. Whitney, B. S., Portland, Ore. (243 Monroe Street); Secretary Allen & Gilbert Company.

J. Fred Yates, A. B., Corvallis, Ore.; Attorney-at-Law.

1886.

B. F. Collins, B. S.; deceased.

Frances Harris, B. S., Portland, Ore. (560 Hoyt Street); Teacher.

Harry L. Holgate, B. S., Klamath Falls, Ore.; Lawyer.

Herbert Kittredge, A. M., Eureka, Cal.; Teacher.

Minnie McFarland, B. S., Gilroy, Cal.

Dina Newton-McCoy, B. S., Oaksdale, Wash.

O. W. Robbins, B. S., Molalla, Ore.; Contractor and Builder.

Charles D. Thompson, A. B., Hood River, Ore.; Teacher and Fruit Grower; S. B., Agricultural College, Michigan.

Robert J. Wilson, B. S., New York City; Physician and Surgeon with Board of Health.

1887.

Laura Korthauer-Ireland, B. S., Whatcom, Wash. (2111 Walnut Street.)

Robert Cooper, B. S.; deceased.

1888.

Ira Allen, A. B., Portland, Ore. (Sixteenth and Hoyt Streets); Pharmacist.

James H. Collins, A. B., Clatskanie, Ore.; Teacher.

Lillie Groves, A. B., Corvallis, Ore.

William W. Hall, B. S., Salem, Ore.; Brokerage and Insurance.

Jessie Groves-Kittredge, A. B., Eureka, Cal.

Ella Jane Lilly-Mason, B. S., Oswego, Ore.
Anna Lilly-Robbins, B. S., Molalla, Ore.
Gertrude M. Davis-Strange, B. S., Corvallis, Ore.; Teacher.
Mary Newton-Slayton, B. S., Cottonwood, Idaho.
William S. Stock, B. S., Portland, Ore. (Blumauer-Frank Drug Company); Manufacturing Chemist.

1889.

John C. Applewhite, B. S., Tacoma, Wash.; Lawyer.
Clarence Avery, B. S., Bigham Springs, Ore.; Lawyer.
Harry Lea Arnold, B. S., Manila, P. I.; United States Army.
John Buchanan, B. S., Inavale, Benton County, Ore.; Farmer.
Robert G. Buchanan, B. S.; died 1892.
Bertha Davis, B. S., Corvallis, Ore.
Clara Irvine-Hembree, B. S., McMinnville, Ore.; Teacher.
Thomas A. Jones, B. S., Corvallis, Ore.; County Surveyor; Pharmacist.
Emma Webber-Irish, Mt. Clemens, Mich. (267 S. Gratiot Ave.)
Emma Kittredge-Mahoney, B. S., San Francisco, Cal. (808 Van Ness Avenue.)
Clara Fisher-Rands, B. S., Oregon City, Ore.
Mollie Fisher-Thompson, B. S., Los Angeles, Cal. (2410 Trinity Street).
Jesse Wilkins, B. S.; died 1898.
E. E. Wilson, B. S., Corvallis, Ore.; Attorney-at-Law; Secretary Board of Regents, O. A. C.

1890.

A. Sidney Additon, B. S., Oakland, Cal.; Metallurgist.
M. Boyd Hamilton, B. S., Portland, Ore. (532 Williams Ave.); Physician and Surgeon.
May Warren-Woodward, B. S., Philomath, Ore.
C. Otto Wells, B. S.; died 1895.

1891.

Anna Allen-Kuyzenga, B. S., Portland, Ore.
Joseph F. Alexander, B. S., Portland, Ore.; D. D. S.; Professor Portland Dental College.

John Henry Starr, B. S., Junction City, Ore.; Deputy Head Consul, M. W. A.

1892.

Ida M. Ray-Brandes, B. L., Portland, Ore. (252 Eleventh St.)
Anna Mary Denman, B. L., Corvallis, Ore.; Teacher.
Nellie M. Davidson, B. H. E., Fossil, Ore.; B. L., '93; Teacher
Lulu Chandler-Eppinger, B. H. E., Baker City, Ore.
John Fulton, B. S., Corvallis, Ore.; S. B., 1903, Harvard; Associate Professor of Chemistry, O. A. C.
Mattie Avery-Fulton, B. L., Corvallis, Ore.
Nellie M. Hogue, B. H. E., Klamath, Ore.
Rose M. Horton-Irwin, B. L.
Charles Leslie Johnson, B. S., Corvallis, Ore.; Assistant Professor Mathematics, O. A. C.
Leon Louis-Hayward, B. S., Victoria, B. C.
Minnie Waggoner-Lilly, B. L., La Grande, Union County, Ore.
Barney S. Martin, B. S. A., Brownsville, Ore.; Lawyer.
James W. Storms, B. S. A., Kansas; Teacher.
Richard W. Scott, B. S. A., Corvallis, Ore.; Farmer.
Marie Lois Stewart, B. S., Baker City, Ore.; Teacher.

1893.

Lee Applewhite, B. S. A., St. Louis, Mo.; Physician.
Brady Burnett, B. S. A., Corvallis, Ore.; Superintendent City Water Works.
George W. Denman, B. S., Corvallis, Ore.; County School Superintendent.
Ross Finley, B. S. A., Ely, Nevada; B. S., 1894; Assayer Nevada C. C. Co.
Hortense P. Greffoz, B. H. E., Portland, Ore. (788 East Salmon Street); B. L., 1895; Teacher in Portland Public School.
W. Scott Goodall, B. S. A., La Grande, Ore.; Real Estate.
Erma Laurence-Jones, B. H. E., Oregon City, Ore.
Altha Leach, B. H. E., Heppner, Ore.; Milliner.
Horace Lilly, B. M. E., McMinnville, Ore.; Salesman.
Percival Nash, B. S. A., San Francisco, Cal.; Literary Work.
George Walter Palmer, B. M. E., Baker City, Ore.; Jeweler.

Ora Spangler-Porter, B. H. E., Oregon City, Ore.
Norman J. Rowan, B. S. A., Geiser, Ore.; Master Mechanic, Empire Mining Company.
Anna S. Sansom, B. H. E., Portland, Ore. (105 E. Nineteenth Street).
Leolin L. Swann, B. S. A., Albany, Ore.; Attorney-at-Law.
Hattie Bronson Sibley, B. H. E., Dallas, Ore.
Mary C. Voorhees, B. H. E., Portland, Ore.; Assistant Portland Public Library.

1894.

David P. Adamson, B. S. A., Prineville, Ore.; B. S., 1895; Druggist.
Mark Baily Bump, B. S. A., Hillsboro, Ore.; Lawyer.
Charles S. Chandler, B. S. A., San Francisco, Cal. (530 California Street); B. S. 1895; Attorney-at-Law.
Sarah A. Currier, B. H. E., Corvallis, Ore.
Henry M. Desborough, B. M. E., Dawson, Y. T., Canada; Gold Mining.
Edward Getty Emmett, B. M. E., Ionia, Mich.; Draftsman and Machinist, Pere Marquette Railroad Company.
Delia Elizabeth Gellatly-Dentler, B. H. E., San Francisco, Cal.
Ina Vivia Gould, B. H. E., Newberg, Ore.; Teacher.
James H. Gibson, B. S., Portland, Ore.; Attorney-at-Law.
W. Frank Holman, B. M. E., Albany, Ore. (R. F. D. No. 4); B. S., 1895; Farmer.
Luna George-Looney, B. H. E., Jefferson, Ore.
Jennie M. Gellatly-Palmer, B. H. E., Baker City, Ore.
Frank Josephine Parsons, B. H. E., Mayville, Ore.; Teacher.
Hattie Friendly-Rosenbaum, B. H. E., Salt Lake, Utah.
Evelyn Maud Currier-Scott, B. H. E., Corvallis, Ore.
Alice Lettie Wicks, B. H. E., Hemet, Riverside County, Cal.; Teacher.

1895.

James Edward Adamson, B. S. A.
John F. Allen, B. M. E., Corvallis, Ore.; Pharmacist; Member of Firm of Allen & Woodward.
Thomas Beall, B. S. A.; died 1904.

Clara Duncan-Baker, B. H. E., Trenton, Mo.
Adda M. Bristow, B. H. E., Portland, Ore.; Teacher.
Lulu C. Thornton-Brown, B. H. E., Farmington, Cal.
Janie Newton-Brown, B. H. E., Oaksdale, Wash.
Austin T. Buxton, B. M. E., Forest Grove, Ore.; Farmer; Master Oregon State Grange; Member Board of Regents, O. A. C.
Lucie Brandon-Chamberlain, B. H. E., Athena, Ore.
Frederick C. Caples, B. S., Waukasha, Wis.; Miner.
Inez Cooley-Carpenter, B. H. E., Bakersfield, Cal.
Seth L. Casto, B. S. A., Portland, Ore.; Express Messenger.
Edwin R. Doughty, B. S. A., Lind, Wash.; B. S. 1896; Pharmacist.
Frank E. Edwards, B. M. E.; M. S., 1906; Instructor of Chemistry and Military Tactics, O. A. C.
Lena Willis-Froggatt, B. H. E., Portland, Ore. (188 North Twenty-third Street).
Minnie L. Hodes-Denman, B. H. E., Corvallis, Ore.
Edna Finley, B. H. E., Corvallis, Ore.; Teacher in Corvallis School.
Anna Hannah, B. H. E., Baker City, Ore. (2437 Auburn Ave.); Bookkeeper.
Alice Buchanan-Herron, B. H. E.; deceased.
Helen L. Holgate, B. H. E., Corvallis, Ore.; Stenographer and Instructor in O. A. C.
Delphena L. Haenel, B. H. E., Junction City, Ore.; Teacher.
Verna Keady-Brewer, B. H. E., Portland, Ore. (1355 Garfield Avenue.)
Elsie Long-Irion; died 1904.
Andrew B. Kidder, B. S. A., Sheridan, Ore.; Railway Mail Service.
William B. Lacy, B. S. A., Portland, Ore. (1231 Hawthorne Avenue); Salesman.
Lester M. Leland, B. S. A., Portland, Ore. (29 East Twenty-seventh Street); Railway Postal Clerk.
Arthur Clay Lewis, B. M. E., Klamath Falls, Ore.; Merchant.
Louise Leuenberger-McDonald, B. M. E., Spokane, Wash.

Olive Hamilton-McKellips, B. H. E., Corvallis, Ore.
A. D. Morrison, B. S. A.; B. S., 1896, Carlton, Ore.; Physician and Surgeon.
Amelia M. McCune, B. H. E., Shedd, Ore.; Farmer.
Kate B. McCune, B. H. E., Shedd, Ore.; Farmer.
Dorothea Nash, B. H. E., Portland, Ore.; Teacher of Music.
Lewis W. Oren, B. M. E., Portland, Ore.; Postal Clerk.
William D. Porter, B. S. A., Shedd, Ore.; Farmer.
Samuel P. Smith, B. S. A., Cando, N. D.; Veterinary Surgeon.
Mary E. Stout-Mulkey, B. H. E., Portland, Ore. (511 Roselawn Avenue.)
Willard W. Smith, B. M. E., La Grande, Ore.; Physician.
Milton O. Stemmler, B. S. A., St. Louis, Mo.; Physician.
Mary Smith-Streumeyer, B. H. E., Astoria, Ore.
W. Claude Williams, B. M. E., McMinnville, Ore.; Hardware Salesman.
Effie Willis, B. H. E., Dillard, Ore.; Teacher.
Kittie Ruth Emmitt-Von Pessl, B. H. E., Melrose, Ore.
Milton A. Wyatt, B. S. A., Corvallis, Ore.; Farmer.
Henrietta Campbell-Wilson, B. H. E., Albany, Ore.
Mary Henderson-Valencia, B. H. E., Santa Cruz, Cal. (354 Pacific Avenue.)
Kate Buchanan-Veatch, B. H. E., Cottage Grove, Ore.; B. L. '96.

1896.

Ida Ward-Allingham, B. H. E., Albany, Ore.
Lyman B. Andrews, B. S. A., Portland, Ore.; Clerk, Y. M. C. A.
Julia Augusta Casto-Andrews, B. H. E., Portland, Ore. (1145 East Alder Street.)
Lulu Lindsay-Atwood, B. H. E., Spicer, Ore.
Louisa Maude Barnett, B. H. E., Oswego, Ore.; B. L., 1897; Teacher.
Lee Beal, B. S. A., Lakeview, Ore.; Druggist.
Walter H. Becker, B. S. A., Odessa, Wash.; Hardware and Implement Dealer.
Sheldon C. Brown, B. S. A., Sunnyside, Wash. (R. F. D. No. 2); B. S., 1898; Farmer.

E. Arthur Buchanan, B. M. E., Corvallis, Ore.; Farmer.
Lewis E. Cooper, B. S. A.; died 1898.
Mattie Wright-Davidson, B. H. E., Portland, Ore.
Lizzie A. Wyatt-Elliott, Perrydale, Ore.; Postmaster.
Herbert M. Friendly, B. M. E., Portland, Ore. (187 Sixteenth Street); Electrician with Pacific States Telegraph & Telephone Company.
Marion R. Johnson, B. S. A., Portland, Ore. (Sellwood Station); Deputy Clerk Circuit Court.
Mary Buoy-Gerking, B. H. E., Pendleton, Ore.
Bessie Barker-Harrison, B. H. E., Portland, Ore. (550 Fifth Street.)
William F. Keady, B. M. E., Portland, Ore.
Harry W. Kelly, B. S. A., The Dalles, Ore.; Dental Student.
Emma Warrior-Kerr, B. H. E., Corvallis, Ore.
William T. Lee, B. S. A., Hanford, Cal.; Farmer.
Edith Lilly-Casto, B. H. E., Portland, Ore.
Carrie Alberta Lyford, B. H. E., Lansing Mich.; B. L., 1897; Instructor Household Economy, State Agricultural College.
Bertie Linville-Morrison, B. H. E., Carlton, Ore.
Joseph Granger McCune, B. S. A., Albion, Wash.; Teacher.
Gertrude E. Mackay-Masterson, B. H. E., Astoria, Ore.
Emery J. Newton, B. S. A., Corvallis, Ore.; County Recorder.
Charles L. Owsley, B. M. E., La Grande, Ore.; Stockman.
Clyde M. Phillips, B. M. E., Corvallis, Ore.; Instructor Mechanical Drawing and Iron Work, O. A. C.
Charles G. Porter, B. M. E., Corvallis, Ore.; Salesman.
Mildred Linville-Patterson, B. H. E., Baker City, Ore.
Edwina M. Avery-Powell, B. H. E., Salem, Ore.
Gordon C. Ray, B. M. E., Grass Valley, Cal.
Martin L. Spangler, B. M. E., San Francisco, Cal.; Engineer.
Lilly M. Read, B. H. E., Culver, Ore.; Teacher.
V. Esther Simmons, B. H. E., Huron, Cal.; Teacher.
Joseph C. Smith, B. S. A., Corvallis, Ore.; Farmer.
Josie Moses-Trask, B. H. E., Falls City, Ore.
Henry H. Veatch, B. S. A., Cottage Grove, Ore.; Hardware Merchant.

Minnie A. Wilson, B. H. E., New York City.
Marion F. Wood, B. S. A., Tangent, Ore.; Farmer.
Arthur W. Wood, B. M. E., California.

1897.

Ina Barclay-Bryan, B. H. E., Ontario, Ore.
Clarence L. Bump, B. M. E., Forest Grove, Ore.; Teacher.
Herbert J. Elliott, B. M. E., Perrydale, Ore.; Miller.
Robert E. Golden, B. M. E., Portland, Ore.; Physician.
Frank William Groves, B. M. E., Corvallis, Ore.
J. Wallace Harrison, B. M. E.; died 1905.
Edwin J. Hufford, B. S. A., Portland, Ore. (228 Sherman Street); B. S., 1898; Bank Clerk.
William Thomas Johnson, B. S. A., St. Louis, Mo.; Student Marion-Sims Medical College.
Emma Martyn-Merchant, B. H. E., Portland, Ore. (789 East Thirty-third Street.)
Harvey L. McAlister, B. S. A., Lexington, Ore.; Farmer.
Charles R. Porter, B. M. E., Grass Valley, Ore.; Merchant.
William H. Schmidt, B. S. A., San Francico, Cal; Merchant.
Charles E. Small, B. M. E., Corvallis, Ore.; Merchant.
Charles Otis Taylor, B. M. E., Halsey, Ore.; Farmer.
Ralph W. Terrell, B. M. E., Roseburg, Ore.; Clerk.

1898.

David Henry Bodine, B. S., Albany, Ore.; Farmer.
Frank H. Crawford, B. S.; deceased.
Thomas Chester Colt, B. S., Longmount, Colo.; Chemist with Kilby Manufacturing Company.
John Robert Cooley, B. S., Brownsville, Ore.; Secretary Eagle Woolen Mills.
Frank Sitton Fendall, B. S., Seattle, Wash.; Engineer.
Mary Edna Groves, B. H. S., Corvallis, Ore.
Edith H. Gibson, B. H. S., Portland, Ore.; Music Teacher.
William J. Gilstrap, B. S., M. D., Sheridan, Ore.; Physician and Surgeon.
Hulda Holden-Guild, B. H. S., San Francisco, Cal.; Teacher.
Georgie Eleanor Hartless, B. H. S., Drewsey, Ore.; Teacher.

Lionel Alexander Johnson, B. S., Portland, Ore.; Special Correspondent, Oregonian.

Erwin J. Lea, B. S., Aiea, Oahu, Honolulu Territory; M. S., 1900; Chemist.

Emma D. Beach-Lingo, B. H. S., Sellwood, Ore. (612 Multnomah Avenue.)

Colista Margaret Murray, B. H. S., Portland, Ore. (746 East Yamhill Street); Artist.

Charles F. McKnight, B. S., Marshfield, Ore.; Lawyer.

Sarah E. Morrison, B. H. E., Olympia, Wash.; Teacher.

George L. Plummer, B. S., Elko, Nev.; Merchant.

Arthur J. Stimpson, B. S., Portland, Ore. (739 East Yamhill Street); Postal Railway Clerk.

Myrtle Shonkwiler, B. H. S., Portland, Ore.; Teacher.

Laura Cauthorn-Smith, B. H. S., Corvallis, Ore.

Dennis H. Stovall, B. S., Grant's Pass, Ore.; Story Writer.

Ena Mabel Kyle-Swingle, B. H. S., Pendleton, Ore.

Jesse A. Tharp, B. S., Portland, Ore.; Engineer.

Nettie Lyle Gellatly-Thayer, B. H. S., Astoria, Ore.

George E. Weaver, B. S., San Francisco, Cal. (14 Sansome Street); Lawyer.

Dora Porter-White, Lewiston, Idaho.

1899.

Leona Smith-Ainslie, B. H. S.; died 1903.

John G. Aldrich, B. S., North Yakima, Wash.; Hotel Clerk.

W. H. Beach, B. S., Oregon City, Ore.; Foreman Spooling Department, Oregon City Woolen Mills.

Harry Beard, B. S., Corvallis, Ore.; Teacher, Band Leader, O. A. C.

Ella M. Casto, B. H. S., Park Place, Ore.; Teacher.

Cleora Wells-Colt, B. H. S., Summerville, Ore.

Jessie V. Cox-Cooley, B. H. S., Brownsville, Ore.

Fred Allan Edwards, B. S., Mayville, Ore.; Farmer.

Robert Gellatly, B. S., Philomath, Ore.; Diversified Farming.

Rosalie Greffoz, B. H. S., Portland, Ore.; Bookkeeper.

Fanny Getty, B. H. S., Baker City, Ore.; Teacher.

R. Henry Howell, B. S., Toledo, Ore.; Engineer.

Jesse Huffman, B. S., Portland, Ore.; Architect.
Mary Jones, B. H. S., Silverton, Ore.; Teacher.
Alice Josephine Kidder-Kutch, B. H. S., Carlton, Ore.; B. S. '00.
Lyle Laurence-Levinger, B. H. S., Baker City, Ore.
Genevieve Lyford, B. H. S., Hawarden, Ia.; Kindergarten Teacher in Public School.
Horace McBride, B. S., Mayville, Ore.; Farmer.
Idella Florence McBride-Mershon, B. H. S., Cleone, Ore.
Frankie Cauthorn-McIntire, B. H. S., Nanton, Alberta.
Robert McKee, B. S., Salem, Ore.; Farmer.
Leslie Walter Murray, B. S., Philadelphia, Pa. (2807 N. Ninth Street); Structural Steel Draftsman, Minnitt & Company, 1026 Ridge Avenue.
Woodson L. Patterson, B. S., Baker City, Ore.; Lawyer.
Loren T. Powers, B. S., Wallowa, Ore.; Farmer.
Esther Madeline Purdy, B. H. S., Corvallis, Ore.
Hubert A. Scoggin, B. S., Tumalo, Ore.; Farmer.
Nolan Smith, B. S., Monterey, Cal; Forgemaster Q. M. Dept., U. S. A.
Minnie Leona Burnett-Wiley, B. H. S., Portland, Ore.
James C. G. Van Groos, B. S., Portland, Ore. (1298 E. Taylor Street); Postal Railway Clerk.
John Van Groos, B. S., Portland, Ore.; Professor of Mathematics in Portland Academy.
Mabel Cora Davis-Walker, B. H. S., Portland, Ore.; B. S., 1901.
Clara Lane-Woodcock, B. H. S., Corvallis, Ore.
Arthur Roy Woodcock, B. S., Corvallis, Ore.; M. S., 1901; Bank Clerk.

1900.

Walter Carleton Abrams, B. S., Salem, Ore.; Statesman Reporter.
Edwin Burton Aldrich, B. S., Fossil, Ore.; Clerk.
Arthur Julius Bier, B. S., Portland, Ore.; Mechanic.
Harry Edward Buxton, B. S., Corvallis, Ore.; Planing Mill.
Minnie Maud Buxton, B. S., Portland, Ore.; Trained Nurse.
Reuben Davisson Burgess, B. S., Toledo, Ore.; Physician.
William Ray Dilley, B. S., Little Falls, Wash.; General Manager

Stillwater Lumber Co.
Letitia Ownbey-Dupuy, B. S., Oregon City, Ore.
James Grant Elgin, B. S., Corvallis, Ore.; ex-County Recorder; Harness Maker.
Arthur Homer Frazier, B. S., Pendleton, Ore.; with the O. R. & N. Railroad Company.
Joseph Gilbert Garrow, B. S., Hazel Creek, Cal.; Lumberman.
Wilbur William Garrow, B. S., McCloud, Cal.; Hotel Proprietor.
John Hubert Gallagher, B. S., Houghton, Mich.
Joyce Lillian Hershner, B. S., Condon, Ore.; Teacher.
Garlin Hill, B. S., Independence, Ore.
Edwin Scott Harris, B. S., Elgin, Ore.; Pharmacist.
Meldora Jackson, B. S., Hoskins, Ore.; Teacher.
Herbert Eugene Junkin, B. S., Portland, Ore. (735 Bush Street); Clerk, O. R. & N. Company.
Fred Kruse, B. S., Marshfield, Ore.
Aubert Leavens, B. S., Portland, Ore. (512 Albina).
Florence Maxfield, B. S., Corvallis, Ore.; Teacher.
John Elmer McBride, B. S., Shedds, Ore.; Teacher.
James Cowing McCaustland, B. S., Spokane, Wash.; Manager, Land Department, Hay Brothers.
Leigh Alonzo Noel, B. S., Gardner, Ore.; Farmer.
Thomas Edward Palmer, B. S., San Francisco, Cal. (929 O'Farrell Street); Collector, Tesla Coal Company, Tenth and Channel Streets.
Hugh Elmer Penland, B. S., Berkeley, Cal.; Physician.
Inez Fuller-Pfeifer, B. S., Portland, Ore.
Elsie Mathilde Rueter, B. S., Portland, Ore.; Stenographer and Bookkeeper.
Lillian Ada Ranney, B. S., Corvallis, Ore.; Student in Music.
Charles Alfred Saunders, B. S., Oakland, Cal. (1161 E. Fifteenth Street); Machinist, Pacific Steel & Wire Company, East Oakland.
Mira Eva Starr, B. S., Corvallis, Ore.
Etta Agnes Smith-Taylor, B. S., Corvallis, Ore.
Fred Cecil Walters, B. S., Elmira, Lane County, Ore.; Lumberman.
Glenn Winslow, B. S., Pendleton, Ore.; Jeweler.

1901.

Myrtle Herbert-Billings, B. S., Ashland, Ore.
Lizzie Hoover-Bowerman, B. S., Condon, Ore.
Ivan C. Brown, B. S., Portland, Ore.; Railway Postal Clerk.
Ivy Grace Burton, B. S., Independence, Ore.; Teacher.
Alfred Campbell, B. S., Ballston, Ore.; Farmer.
Mabel Lenore Jones-Cannon, B. S., Salem, Ore.
Fred LeRoy Colvig, B. S., Grants Pass, Ore.; Druggist.
Carrie Agnes Danneman, B. S., Corvallis, Ore.
Ethel Kyle-Hall, Schenectady, N. Y. (1016 Albany Street.)
Stanley Darle Herbert, B. S., Whitney, Ore.; Civil Engineer with Sumpter Valley Railroad Company.
William Bennett Hillman, B. S., North Yakima, Wash.; Electrical Engineer.
Esther Blanche Holden, B. S., Oregon City, Ore.; Teacher.
Charles Herbert Horner, B. S., Condon, Ore.; Deputy Postmaster.
Martin Luther Johnson, B. S., Portland, Ore. (635 East Ninth Street.)
William Sumner Junkin, B. S., Portland, Ore.; Lineman.
Leo J. Kraps, B. S., Los Banos, Cal.; Engineer.
Ethel Blond Kyle-Hall, B. S., Schenectady, N. Y. (1016 Albany Street.)
Bessie Lea Michael, B. S., Portland, Ore.; Stenographer.
William L. Pate, B. S., Shedds, Ore.; Farmer.
Maude Hoover-Portwood, Condon, Ore.
Ernest Winfield Redd, B. S., Portland, Ore.; Druggist.
Blanche Eglantine Riddle, Riddle, Ore.; Teacher.
Edgar Raymond Shepard, B. S., Boston, Mass.
Flora Wilson-Smick, B. S., Canyonville, Ore.
Bessie Gertrude Smith, B. S., Salem, Ore.
Fred Newton Stump, B. S., Suver, Ore.
John Louis Stalker, B. S., Carson, Ore.
Henrietta Campbell-Van Groos, B. S., Portland, Ore. (1298 East Taylor Street.)
Frank S. Ward, B. S., Salem, Ore. (101 Commercial Street);
Grace Michael-Wallace, B. S., Rochester, N. Y. (165 East Ave.)
John Thomas Wiley, B. S., Portland, Ore.

Marcus Clyde Williams, B. S., Independence, Ore.; Druggist.
Mabel Withycombe, B. S., Corvallis, Ore.
Thomas Robert Withycombe, B. S., Union, Ore.; Assistant in Eastern Oregon Experiment Station.

1902.

Ina Pearl Allen, B. S., McMinnville, Ore.; Teacher.
Augustus M. Alspaugh, B. S., Eagle Creek, Ore.; Timekeeper for Winters, Parson & Boomer, Railroad Contractors.
Frances Edna Belknap, B. S., Corvallis, Ore.; Teacher in Public School.
Ralph Billings, B. S., Ashland, Ore.; Farmer.
Marion Forrest Bridges, B. S., Schenectady, N. Y.; Designing Engineer, General Electric Company.
Thomas Bilyeu, B. S., Portland, Ore.; Contractor and Designer.
Rena Jane Garrett-Fischer, Marcola, Ore.
Wilford Edmond Hanley, B. S., Hillsboro, Ore.; Farmer.
Fred Chauncey Houston, B. S.; died 1904.
Roy P. Howard, B. S., Ann Arbor, Mich; Student, University of Michigan.
Chester W. Laughlin, B. S., Grays River, Wash.; Clerk.
Noble William Leadbetter, B. S., Portland, Ore.; Machinist, American Tool Works.
Harry Lindon Lusted, B. S., Gresham, Ore.; Farmer.
Kirby Alexander MacLean, B. S., Phoenix, Ariz.; Civil Engineer with Arizona Southern Railroad.
Gertrude Ewing-McElfresh, B. S., Portland, Ore. (696 Irving Street.)
Alexander Edward McGillivray, B. S., Portland, Ore. (459 Durham Avenue); Manager Woodlawn Drug Co.
Christal Miner, B. S.; deceased.
Leroy Garfield Mattley, B. S.; deceased.
Maud Mattley, B. S., Corvallis, Ore.; Teacher.
Edward Rosendorf, B. S.; died 1904.
Ethel F. Smith, B. S., Salem, Ore.; Druggist.
Malinda Alice Small, B. S., Hammond, Ore.; Teacher.
Victor C. Spencer, B. S., Corvallis, Ore.; Druggist.
Elizabeth Ney St. Germain, B. S., Gordon, Wash.; Teacher.

Maud Sturgeon, B. S., Estacada, Ore.; Pharmacist.

John Eliphalet Smith, B. S., Salem, Ore.; Teacher, Salem High School.

Orla Thompson-Stimpson, B. S., Portland, Ore. (739 East Yamhill Street.)

James Franklin Scott, B. S., Tangent, Ore.

Fred Steiwer, B. S., Eugene, Ore.; Bank Clerk.

George Harris Thompson, B. S., Macleay, Ore.; Farmer.

Herman Vance Tartar, B. S., Portland, Ore.; Chemist with Woodard Clark Co.

Arthur Edgar Tully, B. S., Wallowa, Ore.; Dairyman.

William Van Groos, B. S., San Francisco, Cal.

Edith Slayton Howard-Zurcher, B. S., Roseburg, Ore.

1903.

Mabel Maud Abbe, B. S., Des Moines, Iowa; Student Drake University.

Clauda Leola Anderson, B. S., Lents, Ore.; Teacher.

Edith Jane Berthold-Buchanan, B. S., Corvallis, Ore.

Edward Benjamin Beaty, B. S., Hoquiam, Wash.; Principal High School.

Samuel Lewie Burnaugh. B. S., Enterprise, Ore.; Druggist; Real Estate.

Claude Buchanan, B. S., Corvallis, Ore.; Farmer.

Leolene Rosamond Chipman, B. S., Corvallis, Ore.; Compositor.

Laura Lillian Chipman, B. S., Portland, Ore.; Milliner.

Elsie May Canfield-Ferch, Le Mars, Iowa.

Viola Ethel Johnson-Dickerson, B. S., Vale, Ore.

Ada Eudora Finley, B. S., Corvallis, Ore.; Teacher.

Albert David Gerking, B. S., Stayton, Ore.; Farmer.

Beulah Harden-Gerking, B. S., Stayton, Ore.

Alice Odalite Horning, B. S., Silver Lake, Ore.

Grace Whiteman-Hansen, B. S., Albany, Ore.

William David Jamison, B. S., Portland, Ore. (446 East Everett Street); Electrician.

John Edwin Johnson, B. S., Vale, Ore.; Agent Eastern Oregon Land Co.

Lillian Johnson, B. S., Vale, Ore.

Sibyl Alice Cummings-Laughlin, Grays River, Wash.
Byram Mayfield, B. S., Enterprise, Ore.; Pharmacist.
Effie Laurie Michael, B. S., Portland, Ore.
Floyd Francis Millhollen, Portland, Ore. (574 First Street); Druggist.
Joseph Paulson, B. S., Atlanta, Ga.; Engineer, Westinghouse Electric and Manufacturing Co.
Harvey Pugh, B. S., Shedds, Ore.; Farmer.
Emma Imogen Rusk, B. S., Portland, Ore.
Ida Mae Smith, B. S., Salem, Ore.; Teacher.
Minnie Grace Smith, B. S., Latourell Falls, Ore.; Teacher.
Irving Melville Underwood, B. S., Grass Valley, Ore.; Farmer.
Ethel Eleanor Linville-Weeks, B. S., La Grande, Ore.
Walter Stanley Wells, B. S., Ely, Nev.; Druggist.
Elmer Gifford Wicklund, B. S., Caldwell, Idaho.; Nurseryman.

1904.

Meigs William Bartmess, B. S., Pittsburg, Pa.; with Westinghouse Electric Co.
Clarence Warner Beaver, B. S., San Francisco, Cal.; Chemist.
Horace Carpenter Brodie, B. S., Montesano, Wash.; Stenographer.
John Charles Burns, B. S., Cleone, Ore.; Farmer.
John William Buster, B. S., Eugene, Ore.; Druggist.
Carrie Ann Byerlee, B. S., Portland Ore.; Assistant Children's Home.
Etta Belle Carter, B. S., Albany, Ore.; Teacher.
Claude Clifton Cate, B. S., Corvallis, Ore.
Jesse Claude Clark, B. S., Portland, Ore.; with Y. M. C. A.
Maude Elizabeth Cochran, B. S., Aurora, Ore.; Teacher.
Percy Alfred Cupper, B. S., Salem, Ore.; Office Assistant State Engineer.
Thomas Willard Espy, B. S., Berkeley, Cal.; Student.
Albert Sidney Hall, B. S., Schenectady, N. Y.; with General Electric Co.
Edna Blanche Hershner, B. S., Lents, Ore.; Teacher.
Ernst Hinrichs, B. S., Schenectady, N. Y.; with General Electric Works.

Dave Hirstel, B. S., Portland, Ore.; Contractor and Designer.
Alva Otis Horton, B. S., Prineville, Ore.; Druggist.
Etta Fuller Howard, B. S., Prineville, Ore.
John Ransom Howard, B. S., Prineville, Ore.
Elmer Polic Jackson, B. S., Whiting, Ind.; Instructor Manual Training School.
Lucy Dilly-Johnson, B. S., Vale, Ore.
Guy Erwin Moore, B. S., Chicago, Ill.; Student.
Chester Lloyd Proebstel, B. S., Portland, Ore. (1061 East Main Street); Mining Engineer.
Inez St. Germain-Proebstel, B. S., Portland, Ore. (1061 East Main Street.)
Jackson Carle Rinehart, B. S., Portland, Ore.; with Portland General Electric Co.
Juanita Rosendorf, B. S., Corvallis, Ore.; College Stenographer, O. A. C.
Alice Leena Rusk, B. S., California.
Teroah Winfield Scott, B. S., Manila.; Lieutenant Philippine Constabulary.
Claiborne Lockley Shepard, B. S.; died 1906.
Cecil Vivian Staats, B. S., St. Louis, Mo.; Medical Student.
Mary Elizabeth Sutherland, B. S., Corvallis, Ore.; Instructor Dressmaking, O. A. C.
Albert Sidney Weels, B. S., Portland, Ore.; Mining.
Isabel Harris Whitby, B. S.; died 1906.
William Hale Wicks, B. S., M. S. 1906, Corvallis, Ore.; Assistant Horticulturist, O. A. C.
John Thomas Witty, B. S., Shoshone, Idaho; Druggist.

1905.

Wiliam Gustave Abraham, B. S., Schenectady, N. Y.; Electrical Works.
Percival Lysander Adams, B. S., Boston, Mass.; Student.
George Anthon Anderson, B. S., Palo Alto, Cal.; Student Stanford University.
William Henry Beaty, B. S., Schenectady, N. Y.; Electrical Wks.
Albert Burton Bower, B. S., Schenectady, N. Y.; Electrical Works.

Maude Roberts-Brodie, B. S., Montesano, Wash.
Lucile Roberts-Buxton, B. S., Corvallis, Ore.
John Will Carlson, B. S., Schenectady, N. Y.; Electrical Works.
Mary Cecil Danneman, B. S., Corvallis, Ore.; Bookkeeper.
Henry Clay Darby, B. S. Eugene, Ore.; Druggist.
Floyd Bushnell Davis, B. S., Portland, Ore.; Government Office (U. S. R. S.)
Earnest Eddy, B. S., Hoskins, Ore.
Lura Lovene Flett, B. S., Corvallis, Ore.; Stenographer.
Harry Lee Fryer, B. S., Carlton, Ore.; Farmer.
Theodore Alexander Garrow, B. S., Ithaca, N. Y.; Student Cornell University.
Leroy Harlon, B. S., Boise, Idaho; Secretary Y. M. C. A.
Albert Louis Henning, B. S.; died 1905.
Joseph Clare Henkle, B. S., Schenectady, N. Y.; Electrical Wks.
Georgia Ellen Herbert, B. S., Corvallis, Ore.; Teacher.
Violet Philendia Herbert, B. S., Corvallis, Ore.
Fred Austin Hills, B. S., Portland Ore.
Alice Jones, B. S., Alicel, Ore.; Teacher.
Bert Trew Jordan, B. S., Albany, Ore.; Druggist.
Mabelle Bee Keady, B. S., Corvallis, Ore.
Charles Edward MacLean, B. S., Roosevelt, Arizona; Engineer, Government Employ.
John Rhoderick M. McCormick, B. S., San Francisco, Cal.; Mechanic.
Mark Dow McCallister, B. S.. Corvallis, Ore.; Instructor in Woodwork, O. A. C.
Alice Wicklund-McLeod, B. S., New York City.
Edna Smith-Montgomery, B. S., Grants Pass, Ore.
Merrill Bruce Moores, B. S., Ithaca, N. Y.; Student Cornell University.
Guy Sherwood Moore, B. S., Eugene, Ore.
Edna Marie Osburn, B. S., Corvallis, Ore.
Bert Pilkington, B. S., Portland Ore.; Chemist with Oregon Dairy and Food Commission.
Delbert Waldorf Proebstel, B. S., Schenectady, N. Y.; Electrical Works.

Hazel Blanche Raber, B. S., Corvallis, Ore.; Stenographer.

Harvey Earle Rinehart, B. S., Portland, Ore.; with Portland General Electric Co.

Ralph Curtis Shepard, B. S., Salem, Ore.; Farmer.

Otto Gerald Simpson, B. S., Suver, Ore.; Farmer.

Nellie Vernon Skelton, B. S., Hoquiam, Wash.; Instructor in High School.

Karl Steiwer, B. S.,; Lieutenant U. S. A., Philippine Islands.

Frederick Charles Stimson, B. S., Prineville, Ore.; Druggist.

Francis Marion Stokes, B. S., Portland, Ore.

Ray Lewis Stout, B. S., Portland, Ore.

John Smith Tannock, B. S., Schenectady, N. Y.; Electrical Wks.

Lena Belle Tartar, B. S., Corvallis, Ore.; Teacher in Public School.

Leone Charlotte Weber, B. S., Portland, Ore.; Drug Clerk, Lipman, Wolfe & Co.

Otto Adam Weber, B. S., Portland, Ore.; Druggist.

Ira Parker Whitney, B. S., Pullman, Wash.; Instructor in Agricultural College.

Floyd Alexander Williams, B. S., Lieutenant U. S. A., Philippine Islands.

Bessie Margaret Yates, B. S., Vancouver, Wash.; Stenographer.

1906.

Fred Adams, B. S., Roseburg, Ore.; Pharmacist.

Harry Benjamin Auld, B. S., Corvallis, Ore.; Benton County Abstract Co.

Miles Bebee Belden, B. S., Sumpter, Ore.; Head Assayer, Oregon Smelting & Refining Co.

Arthur Edward Belknap, B. S.; died 1907.

Ethel Berman, Corvallis, Ore.; Clerk.

Arthur George B. Boquet, B. S., Corvallis, Ore.; Assistant in Floriculture, O. A. C.

Alfred Leroy Bradley, B. S., Schenectady, N. Y.; Testing Department, General Electric Works.

Archibald Eugene Burns, B. S., Portland, Ore.; with Pacific States Telephone Co.

Grover Cleveland Cate, B. S., Hillsboro, Ore.; Farmer.

Alice Leora Edwards, B. S., Monroe, Ore.; Teacher.
Joel Emily, B. S., Portland, Ore.; Shipping Clerk, Fairbanks-Morse Co.
Fred Clark Ewing, B. S., Corvallis, Ore.; Assistant Zoological Department, O. A. C.
Julia Fuller, B. S., Corvallis, Ore.; Clerk.
Arthur Amos Garrett, B. S., Anaconda, Col.; Mining.
Philip Gearhart, B. S., Portland, Ore.; Machinists' Mfg. Agency.
Frances Violet Gellatley, B. S., Corvallis, Ore.; Clerk.
Howard Clayton Getz, B. S., Elane, Idaho; Mining.
Mertie Harrington, B. S., Corvallis, Ore.; Teacher.
Earl Vincent Hawley, B. S., Corvallis, Ore.; Instructor Electrical Department, O. A. C.
Maggie Maude Hays, B. S., Tangent, Ore.; Teacher.
Annie Laura Hill, B. S., Corvallis, Ore.
Mary Alicia Hill, B. S., Hubbard, Ore.; Teacher.
Walter Ralph Horton, B. S., Portland, Ore.; Gen. Elec. Co.
Rose Mildred Ingram, B. S., Monroe, Ore.; Postmaster.
Robert Combs Jackson, B. S., Medford, Ore.; Orchardist.
William Robert Jones, B. S., Big Elk, Ore.; Teacher.
John Carl Knapp, B. S., Portland, Ore.; Pharmacist.
Belle Kate Mattley, B. S., Rock Creek, Ore.; Teacher.
Cyrus Ross McCormick, B. S., Carson City, Nev.; Asst. Assayer.
Margaret McCormick, B. S., Waterloo, Ore.; Teacher.
Sarah Stella Parsons, B. S., Council, Idaho; Teacher.
Minnie Ethel Phillips, B. S., Peoria, Ore.; Teacher.
Elmer Philander Rawson, B. S., Tacoma, Wash.; Assistant State Secretary Washington Y. M. C. A.
Joseph Lucine Ringo, B. S., Eagle, Ore.; Draftsman, Railroad Engineering Corps.
Maud Graves-Ringo, B. S., Odell, Ore.
Fred Miller Roth, B. S., Yerrington, Nevada; Asst. State Mining Surveyor.
William Amile Schoel, B. S., Portland, Ore.; General Electric Co.
Ralph Edward Smith, B. S., Twin Falls, Idaho.
Wallace Atwood Thompson, B. S., Echo, Ore.; Farmer.
Archie Clifford Van Cleve, B. S., Manila, Philippines; Auditor's Office.

Agnes von der Hellen, B. S., Welten, Ore.; Teacher.
Walter Eakin Wade, B. S., Wallowa, Ore.
Guy Leonard Weaver, B. S., San Francisco, Cal.; Chemist.
Bessie Hart Wilson, B. S., Canyonville, Ore.; Teacher.
Walter Asa Winniford, B. S., Kings Valley, Ore.; Teacher.

INDEX OF THE ALUMNI.

Mabel Maud Abbe, '03
Walter Carle Abrams, '00
William Gustave Abraham, '05
Fred Adams, '06
Percival Lysander Adams, '05
David P. Adamson, '94-'95
James Edward Adamson, '95
A. Sidney Additon, '90
Leona Smith-Ainslie, '99
Edwin Burton Aldrich, '00
John G. Aldrich, '99
T. C. Alexander, '72
Joseph F. Alexander, '91
Alonzo W. Allen, '85
Ina Pearl Allen, '02
Ira Allen, '88
John F. Allen, '95
Ida Ward-Allingham. '96
Augustus Marshall Alspaugh, '02
Clauda Leola Anderson, '03
George Anderson, '05
Lyman B. Andrews, '96
Julia Casto-Andrews. '96
John C. Applewhite, '89
Lee Applewhite, '93
Harry Lee Arnold, '89
Minnie White-Arnold, '76
Lulu Lindsay-Atwood, '96
Harry Benjamin Auld, '06
Clarence Avery, 89
Clara Duncan-Baker, '95
Louisa Maude Barnett, '96
Meigs William Bartmess, '04
Lizzie J. Bayley, '84
William Henry Beach, '99
Lee Beall, '96
Thomas Beall, '95
Harry Beard, '99
Edward Benjamin Beaty, '03
William Henry Beaty, '05
Clarence Warner Beaver, '04
Walter H. Becker, '96
Miles Bebee Belden, '06
Arthur Edward Belknap, '06
Frances Edna Belknap, '02
Arthur Julius Bier, '00
Myrtle Herbert-Billings, '01
Ralph Billings, '02
Thomas Bilyeu, '02
Daniel Harvey Bodine, '98
Laura Thompson-Booth, '78
Arthur George Bouquet, '06
Albert Burton Bower, '05
Lizzie Hoover-Bowerman, '01
Alfred Leroy Bradley, '06
Ida Ray-Brandes, '92
Verna Keady-Brewer, '95
Marion Forrest Bridgess, '02
Adda M. Bristow, '95
Horace Carpenter Brodie, '04
Maude Roberts-Brodie, '04
Ivan C. Brown, '01
Janie Newton-Brown, '95
Lulu C. Thornton-Brown, '95
Sheldon C. Brown, 96
John R. Bryson, '74
Ina Barclay-Bryan, '97
Andrew S. Buchanan, '85
Edith Berthold-Buchanan, '03
E. Arthur Buchanan, '96
Claud Buchanan, '03
John G. Buchanan, '89
Robert G. Buchanan, '89
Clarence Lee Bump, '97
Mark Baily Bump, '94
Reuben Davisson Burgess, '00
George F. Burkhart, '71
Samuel Lewie Burnaugh, '03
Brady Burnett, '93
Archibald Eugene Burns, '06
John Charles Burns, '04
Ivy Grace Burton, '01
John William Buster, '04
Austin T. Buxton, '95
Harry Edward Buxton, '00
Lucile Roberts-Buxton, '05
Minnie Maud Buxton, '00
Carrie Ann Byerlee, '04
Ida Burnett-Callahan, '81
Alfred Campbell, '01
Henrietta Campbell, '95
Mabel Jones Cannon, '01
Frederick C. Caples, '95
John Will Carlson, '05
Etta Belle Carter, '04
Edith Lilly-Casto, '96
Ella M. Casto, '99
Seth L. Casto, '95
Claude Clifton Cate, '04
Grover Cleveland Cate. '06
Franklin Cauthorn, '76
Lucie Brandon-Chamberlain, '95
Charles S. Chandler, '94-'95
Elmer Ellsworth Charman, '81
T. Leonard Charman, '81
Laura Lillian Chipman, '03
Rosamond Leolene Chipman, '03
Jesse Claude Clark, '04
Maude Elizabeth Cochran, '04
Benjamin F. Collins, '86
James H. Collins, '88
Chester Thomas Colt, '98

Cleora Wells-Colt. '99
Fred Leroy Colvig, '01
Inez Cooley, '95
John Robert Cooley, '98
Jessie V. Cox-Cooley, '99
Lewis E. Cooper, '96
Robert Cooper, '87
Frank H. Crawford, '98
Thomas Harrison Crawford, '74
William C. Crawford, '84
Percy Albert Cupper, '04
Sarah Currier, '94
James K. P. Currin, '70
Carrie Agnes Danneman, 01
Mary Cecil Danneman, '05
Henry Clay Darby, '05
Mattie Wright Davidson, '96
Nellie Davidson, '93
Bertha Davis. '89
Floyd Bushnell Davis, '05
Anna Denman, '92
George Denman, '93
Minnie L. Hodes-Denman; '95
Delia E. Gellatly-Dentler, '94
Henry M. Desborough, '94
Viola Johnson Dickinson, '03
William Ray Dilley, '00
Edwin R. Doughty, '95-'96
Letitia Ownbey Dupuy, '00
Earnest Eddy, '05
Alice Leora Edwards. '06
Frank E. Edwards, '95
Fred Allan Edwards, '99
John Eglin, '72
J. Grant Elgin, '00
Dayton Elliot. '79
Herbert J. Elliott, '97
Lizzie Wyatt-Elliot, '96
Marion R. Elliot, '79
William G. Emery, '83
Edward Getty Emmett, '94
Joel Emily, '06
Lulu Chandler-Eppinger, '92
Thomas Willard Espy, '04
Fred Clark Ewing, '06
Frank Sitton Fendall, '98
Ada Eudora Finley, '03
Edna Finley, '95
Hugh McNary Finley, '71
Ross Cauthorn Finley, '93-'94
Rena Garrett-Fisher, '02
Lura Lovene Flett, '05
James Davis Fountain, '71
Arthur Homer Frazier, '00
Herbert M. Friendly, '96
Lena Willis-Froggat, '95
Harry Lee Fryer, '05
Julia Fuller, '06
Ruben A. Fuller, '75
John Fulton, '92-'01
Mattie Avery-Fulton, '92
Elsie Canfield-Furch. '03
John H. Gallagher, '00
Arthur Amos Garrett, '06
Joseph G. Garrow, '00
Theodore Alexander Garrow. '05
Wilbur W. Garrow, '00
Philip Gearhart, '06
Robert Holmes Gellatly, '99
Violet Frances Gellatly, '06
Albert David Gerking, '03
Mary Gerking, '96
Fanny Getty, '99
Howard Clayton Getz, '06
Edith Gibson, '98
James H Gibson, '94
William J. Gilstrap, '98
Elvin J. Glass, '78
David H. Glass, '84
Lillian A. Glass, '80
W. Scott Goodall, '93
Robert E. Golden, '97
Ina Vivia Gould, '94
Bertha Neugass-Greenburg, '82
Hortense Perrine Greffoz, '93-'95
Rosalie Beatrice Greffoz, '99
George Grimes, '74
Edgar E. Grimm, '80
Lillie Groves, '88
Mary E. Groves, '98
William F. Groves, '97
Albert Sidney Hall, '04
Ethel Kyle-Hall, '01
William W. Hall, '88
M. Boyd Hamilton '90
Anna S. Hannah, '95
Wilford Edmond Hanley, '02
Grace Whiteman-Hansen, '03
Bulah Stayton Harden, '03
Clara Melissa Harding, '73
Leroy Harlan, '05
Mertie Harrington, '06
Frances Harris, '86
Henrietta Harris, '85
Scott Edwin Harris. '00
J. Wallace Harrison, '97
Bessie Barker-Harrison, '96
Georgie E. Hartless, '98
Delphena L. Haenel, '95
Earl Vincent Hawley, '06
Maggie Maud Hays, '06
Leon Louis-Hayward, '92
Fanny Kendall-Henkle, '71
Clara Irvine-Hembree. '89
Joseph Clare Henkle, '05
Albert Louis Henning, '05
Georgia Ellen Herbert, '05
Violet Philenda Herbert, '05
Stanley Darle Herbert, '01
William F. Herrin, '73
Alice Buchanan-Herren, '95
Edna Blanche Hershner, '04
Joyce L. Hershner, '00
Annie Laura Hill, '06
Garlin Hill. '00
Mary Alicia Hill, '07

William Bennett Hillman, '01
Fred Austin Hills, '05
Ernst Hinrichs, '04
Dave Hirstel, '04
Nellie M. Hogue, '92
Blanche Esther Holden, '01
Hulda Holden, '98
Harry Holgate, '86
Helen L. Holgate, '95
W. Frank Holman, '94-'95
William H. Holman, '83
Charles Herbert Horner, '01
Alice Horning, '82
Alice Odalite Horning, '03
Alva Otis Horton, '04
Rose M. Horton, '92
Walter Ralph Horton, '06
Fred Chauncy Houston, '02
George B Hovendon, '83
Hattie Hanna-Hovendon, '80
Etta Fuller-Howard, '04
John Ransom Howard, '04
Roy Howard, '02
R. Henry Howell, '00
Jesse Francis Huffman, '99
Edwin Joseph Hufford, '97-'98
Rose Mildred Ingram, '04
Laura Korthauer-Ireland, '87
Emma Weber-Irish, '89
Elsie Long-Irion, '95
Oscar L. Ison, '73
Elmer Polic Jackson, '04
Meldora Jackson, '00
Robert Combs Jackson, '06
Eda Jacobs, '82
Isaac Jacobs, '76
Isador Jacobs, '84
William David Jamieson, '03
Samuel T. Jeffryes, '78
Charles Leslie Johnson, '92
John Edwin Johnson, '03
Lionel Alexander Johnson, '98
Lillian Johnson, '03
Lucy Dilly-Johnson, '04
Marion R. Johnson, '96
Martin Luther Johnson, '01
William T. Johnson, '97
Alice Jones, '05
Erma Laurence-Jones, '93
Mary Jones, '99
Mabel Lenore Jones, '01
Thomas A. Jones, '89
William Robert Jones, '06
Bert True Jordan, '05
Herbert E. Junkin, '00
William Summer Junkin, '01
Mabelle Bee Keady, '05
William F. Keady, '96
Harry W. Kelly, '96
Emma M Warrior-Kerr, '96
Alice Josephine Kidder, '99-'00
Andrew B. Kidder, '95-'98
Herbert Kittredge, '86
Jessie Groves-Kittredge, '88
John Carl Knapp, '06
Leo J. Kraps, '01
Fred Kraus, '00
Anna Allen Kuyzenga, '91
William B. Lacy, '95
Chester Willis Laughlin, '02
Sibyl Cummings-Laughlin, '03
Erwin J. Lea, '98-'00
Altha Leach, '93
Aubert A. Leavens, '00
William T. Lee, '96
Noble William Leadbetter, '02
Lester M. Leland, '95
George Perley Lent, '76
Jessie L. Lesh, '81
Lyle Laurence-Levinger, '99
Arthur Clay Lewis, '95
Leander N. Liggett, '73
Ella Jane Lilly, '88
Horace Lilly, '93
Minnie Waggoner-Lilly, '92
Emma Beach-Lingo, '98
Phillip Edward Linn, '75
Alonzo Jacob Locke, '72
Luna George-Looney, '94
Harry Lindon Lusted, '02
Carrie Alberta Lyford, '96-'97
Genevieve Lemen Lyford, '99
Emma Kittredge-Mahony '89
Barney S. Martin, '92
Emma Martyn, '97
William Y. Masters, '82
Gertrude Mackay-Masterson, '96
Belle Kate Mattley, '06
Maud Mattley, '02
Leroy Garfield Mattley, '02
Florence Maxfield, '00
Byram Mayfield, '03
Harvey L. McAlister, '97
Horace W. McBride, '99
John Elmer McBride, '00
Mark Dow McCallister, '05
Shubel G. McCann, '80
James C. McCaustland, '00
Cyrus Ross McCormick, '06
John Roderick McCormick, '05
Margaret Kathryn McCormick,'06
Diana Newton-McCoy, '86
Amelia McCune, '95
Joseph Granger McCune, '96
Kate B. McCune, '95
Minnie McFarland, '86
Gertrude Ewing-McElfresh, '02
Louise Lenenberger McDonald, 95
Alexander E. McGillivray, '02
Olive Hamilton-McKellips, '95
Frankie Cauthorn-McIntyre, '99
Robert McKee, '99
Charles F. McKnight, '98
Charles Edward MacLean, '05
Kirby Alexander MacLean, '02
Alice Wicklund-McLeod, 05
Idella McBride-Mershon, '99
Bessie Lea Michael, '01

Effie Laurie Michael, '03
Christal Miner, '02
Lloyd Francis Millhollen, '03
Edna Smith-Montgomery, '05
Guy Envin Moore, '04
Guy Sherwood Moore, '05
Merrill Bruce Moores, '05
Alice Moreland, '70
Archibald David Morrison, '95-'96
Bertie Linville-Morrison, '96
Sarah E. Morrison, '98
Mary E. Stout-Mulkey, '95
Colista Murray, '98
Leslie W. Murray, '99
Dorothea Nash, '95
Percival Nash, '93
Moses S. Neugass, '78
Emery Jesse Newton, '96
William E. Newton, '84
Leigh A. Noel, '00
Lewis W. Oren, '95
Edna Marie Osburn, '05
Charles L. Owsley, '96
George Walter Palmer, '93
Jennie Gellatly-Palmer, '94
Thomas Edward Palmer, '00
Franc Parsons, '94
Sarah Stella Parsons, '06
William L. Pate, '01
Mildred Linville-Patterson, '96
Woodson L. Patterson. '99
Joseph Paulson, '03
Hugh Elmer Penland, '00
Inez Fuller-Pfeifer, '00
M. Clyde Phillips, '96
Miunie Ethel Phillips, '06
Bert Pilkington, '05
George L. Plummer, '98
Charles G. Porter, '96
Charles R. Porter, '97
Ora Spangler-Porter, '93
William D. Porter, '95
Maud Hoover-Portwood, '01
Edwina Avery-Powell, '96
Loren Tower Powers, '99
William Riley Privett, '71
Chester Lloyd Proebstel, '04
Delbert Waldorf Proebstel, '05
Inez St. Germain-Proebstel, '04
Harvey Garfield Pugh, '03
Esther Madeline Purdy, '99
Hazel Blanche Raber, '05
Clara Fisher-Rands, '89
Lillian Ada Ranney, '00
Elmer Philander Rawson, '06
Gordon C. Ray, '96
Herbert G. Ray, '84
Lilly M. Read, '96
Ernest Winfield Redd, '01
Emma Thayer-Rice, '74
Blanche Eglantine Riddle, '01
Harvey Earle Rinehart, '05
Jackson Carl Rinehart, '04
Joseph Lucine Ringo, '06
Maud Graves-Ringo, '06
Annie Lilly-Robbins, '88
Oliver W. Robbins, '86
Hattie Friendly-Rosenbaum, '94
Edward Rosendorf, '02
Juanita Rosendorf, '04
Fred Miller Roth, '06
Norman J. Rowan, '93
Elsie Mathilde Rueter, '00
Alice Lena Rusk, '04
Emma Imogen Rusk, '01
Anna Grace Samuels, '93
Charles Alfred Saunders, '00
William Henry Schmidt, '97
William Amile Scholl, '06
Hubert A. Scoggin, '99
James Franklin Scott, '02
Richard Winfield Scott, '92
Evelyn Maud Currier-Scott, '94
Teroah Winfield Scott, '04
Rose Jacobs-Selling, '72
Claiborne Lockley Shepard. '04
Edgar R. Shepard, '01
Ralph Shepard, '05
Myrtle Shonkweiler, '98
Hattie Bronson-Sibley, '93
Esther V. Simmons, '96
Otto Gerald Simpson, '05
Nellie Vernon Skelton, '05
Mary Newton-Slayton, '88
Charles E. Small, '97
Malinda Alice Small, '02
Flora Wilson-Smick, '01
Bessie Gertrude Smith, '01
Etta Agnes Smith, '00
Ethel Florence Smith, '02
Ida Mae Smith, '03
Joseph C. Smith, '96
Minnie Grace Smith, '03
Nolan R. Smith, '99
Ralph Edword Smith, '06
Samuel P. Smith, '95
Willard W. Smith, '95-'01
John Eliphalet Smith, '02
Laura Cauthorn-Smith, '98
Bartholomew T. Soden, '79
Martin L. Spangler, '96
Hattie Mary Spencer, '99
Nettie Spencer, '82
Victor Cleveland Spencer, '02
Cecil Vivian Staats, '04
John Louis Stalker, '01
John H. Starr, '91
M. Eva Starr, '00
Karl Steiwer, '05
Fred Steiwer. '02
Milton O. Stemmler, '95
Marie Lois Stewart, '92
Elizabeth Ney St. Germain, '02
Arthur J. Stimson, '98
Orla Thompson-Stimson, '02
Frederick Charles Stimpson, '05
William A. Stock, '88
Marion Francis Stokes, '05

James W. Storms, '92
Mary E. Stout, '95
Ray Lewis Stout, '05
Dennis H. Stovall, '98
Gertrude M. Davis-Strange, '88
Mary Smith-Streumeyer, '95
Fred Newton Stump, '01
Maude Sturgeon, '02
Mary Elizabeth Sutherland, '04
Lionel L. Swann, '93
Herman Vance Tartar, '02
Ena Mabel Kyle-Swingle, '98
John Smith Tannock, '05
Lena Belle Tartar, '05
Charles Otis Taylor, '97
Emmett H. Taylor, '74
Ralph W. Terrell, '97
A. Jesse Tharp, '98
Nettie Gellatly-Thayer, '98
Addie Allen Thompson, '76
Charles D. Thompson, '86
Mollie Fisher-Thompson, '89
Newton A. Thompson, '76
George Harris Thompson, '02
Wallace Atwood Thompson, '06
Josie Moses-Trask, '96
Arthur Edgar Tulley, '02
Irving Melville Underwood, '03
Mary Henderson-Valencia, '95
Archie Clifford Van Cleve, '06
John Albert VanGroos, '99
Henrietta Campbell-VanGroos, '01
James VanGroos, '99
William VanGroos, '02
Henry H. Veatch, '96
Katie Buchanan-Veatch, '95-'96
Robert M. Veatch, '70
Frederick W. Vincent, '78
Kittie Ruth Emmitt-VonPessl, '95
Agnes von der Hellen, '06
Mary C. Voorhees, '93
Walter Eakin Wade, '06
Fred Cecil Walters, '00
Mabel Davis-Walker, '99, '01
Grace Michael-Wallace, '01
Frank S. Ward, '01
James K. Weatherford, '72
George E. Weaver, '98
Guy Leonard Weaver, '06
Otto Adam Weber, '05
Leone Charlotte Weber, '05
Albert Sidney Wells, '04
Ethel Linville-Weeks, '03
C. Otto Wells, '90
Walter Stanley Wells, '03
Isabel Harris-Whitby, '04
Mary Harris-Whitby, '71
Dora Porter White, '98
Ernest White, '79
Ira Parker Whitney, '05
James E. Whitney, '85
Alice Lettie Wicks, '94
William H. Wicks, '04
Elmer Gifford Wicklund, '03
John T. Wiley, '01
Leona Burnett-Wiley, '99
Jesse Wilkins, '89
Floyd Alexander Williams, '05
Marcus Clyde Williams, '01
W. Claude Williams, '95
Effie Willis, '95
Bessie Hart Wilson, '06
Edward E. Wilson, '89
Minnie Augusta Wilson, '96
Robert J. Wilson, '86
Walter Asa Winniford, '06
Glenn Winslow, '00
Mabel Withycombe, '01
Robert Withycombe, '01
John Thomas Witty, '04
Arthur W. Wood, '96
Marion F. Wood, '96
Arthur Roy Woodcock, '99-'01
Clara Lane-Woodcock, '99
May Warren-Woodward, '90
Abigail Wright, '82
Milton A. Wyatt, '95
Bessie Margaret Yates, '05
J. Fred Yates, '85
William E. Yates, '80
Edith Slayton Howard-Zurcher, '02

TEXT-BOOKS.

Agriculture—
- Book on Drainage, Miles.
- Brooks' Agriculture, Vols. I, II and III.
- Cattle Breeding, Warfield.
- Feeding of Animals, Jordan.
- Feeds and Feeding, Henry.
- Horses, Cattle, Sheep and Swine, Curtis.
- Irrigation and Farming, Wilcox.
- Manual of Cattle Feeding, Armsby.
- Physics of Agriculture, King.
- Soil, King.
- Stock Feeding, Stewart.
- Study of Breeds, Shaw.
- Types of Farm Animals, Plumbe.
- Veterinary Studies, Reynolds.

Bacteriology—
- Essentials of Bacteriology, Ball.

Botany—
- Histology—Atkins, College Botany; Coulter, Plant Structures; Strassburger, Practical Botany.
- Morphology and Ecology — Leavitt, Outlines.
- Coulter, Plant Relations.
- Bergen, Foundations.
- Systematic Botany, Howell.
- Physiology—Sorauer, McDougal, Green
- Physiology, Laboratory—Ganong, Mcdougal.

Chemistry—
- Agricultural Chemistry, Johnson.
- Crooke's Select Methods.
- Engineering Chemistry, Blount and Bloxan.
- Food Inspection and Analysis, Leach.
- General Chemistry, Bradbury, Newell, Young.
- Microscopy of Vegetable Foods, Winton
- Qualitative Analysis, Johnson and Prescott, Dennis and Whittlesey.
- Quantitative Aualysis, Talbot, Smith and Cheever.
- Organic Chemistry, Remsen.
- Stillman Engineering Chemistry.
- Sutton's Volumetric Analysis.
- Technology of Paint and Varnish, Savin
- Thorpe's Dictionary of Applied Chemistry.
- Wiley's Principles of Applied Chemistry

Dairying—
- Dairy Chemistry, Snyder.
- Milk and Its Products, Wing.

Elocution—
- Evolution of Expression, Emerson.
- Steps to Oratory, Townsend.

English and Literature—
- American Literature, Abernethy.
- Composition,—Rhetoric, Brooks and Hubbard.
- Higher English, Reed and Kellogg.
- Elementary English Composition, Huber, Gray, Buehler.
- Kimball's Business Speller.
- Baldwin's College Manual of Rhetoric
- English Grammar, Whitney.
- English Literature, Newcomer.

German—
- Collar-Eysenbach's German Grammar.
- Mueller and Wenckebach's Gluck Auf.
- Hewett's German Reader.
- Bronson's Colloquial German.
- Mosher's Willkommen in Deutschland.
- Jagemann's German Syntax.
- Selections from Modern prose works, Schiller's and Lessing's Dramas.
- Brandt and Day Scientific German Reader.

History—
- General History, Myers (Two Volume Edition).
- U. S. History—Essentials in American History, Hart.

Horticulture—
- Principles of Fruit Growing, Bailey.
- Plant Breeding, Bailey.
- Principles of Plant Culture, Goff.
- The Survival of the Unlike, Bailey.

Household Science—
- Aesthetics. Day.
- Ethics of Marriage, Pomeroy;
- Home Nursing, Harrison.
- Household Science, Helen Campbell.

Latin—
- Aeneid, Greenough and Kittredge.

Allen & Greenough's Latin Grammar.

Caesar—Books I and II, Allen and Greenough.

Cicero's Orations, Allen and Greenough.

First Year Latin, Collar and Daniel.

Literary Commerce—
- Modern Book-keeping, Montgomery.

Commercial Law, Richardson.

Mathematics, Civil and Mining Engineering—
- Algebra—Advanced, Hawks.
- Algebra—Essentials of, Wells.
- Analytic Geometry—Plane and Solid, Ashton.
- Arithmetic—The New Business, Powers and Lyon.

Astronomy—Elementary, Young.
Calculus—Differential and Integral, Nichols.
Contracts and Specifications, Johnson.
Geometry—Plane and Solid, (Revised Edition), Wentworth.
Geometry—Plane and Solid, Shutts.
Highway Construction, Baker.
Masonry Construction, Baker, Patton.
Mining—A Manual of, Ihlsing.
Railroads—Searles, Webb.
Roofs and Bridges—Merriman and Jacoby.
Sanitary Engineering—Folwell.
Surveying—Johnson, Merriman and Brooks, Pence and Ketchem.
Trigonometry—Plane and Spherical, Ashton and Marsh.
Water Supply Engineering, Folwell.
Mechanical and Electrical Engineering—
Alternating Current Machines, Sheldon and Mason.
Elements of Electrical Engineering, Steinmetz.
Descriptive Geometry, C. E. Ferris.
Electricity and Magnetism, Sylvanus Thompson.
Electro-Magnetism and the Consruction of Dynamos, D. C. Jackson.
High School Physics, Carhart & Chute.
Machine Design, Part I, Jones.
Physical Laboratory Manual, Chute.
Technical Mechanics, Edward R. Maurer.
The Strength of Materials, Slocum and Hancock.
Mental and Political Science—
Essentials of Psychology, Buell.
Johnston's History of American Politics
Principles of Economics, Laughlin.
Military—
Army Regulations, U. S. A.
Constitutional Law, Cooley.
Conventional Signs and Symbols, General Staff U. S. A.
Drill Regulations of Hospital Corps, U. S. A.
First Aid to the Injured, Johnson & Johnson.
Federal Aid in Domestic Disturbances, W. D. Publication.
Guard Manual, U. S. A.
Infantry Drill Regulations, U. S. A.
International Law, Davis.
Light Artillery Drill Regulations, U. S. A.
Military Science, Wagner.
Manual of Field Engineering, Beach.
Map Making and Map Reading, Beach.
Military Occupation, Magoon.
Military Law, Winthrop.
Manual of Physical Drill, Butts.
Manual of Signal Corps, Giddings.
Organization and Tactics, Wagner.
Small Arm Firing Regulations, U.S.A.
Security and Information, Wagner.
Telephones and Telegraphs, U. S. A.
Mining—
Assaying, Lodge.
Blowpipe Analysis, Moses & Parsons.
Geology, Scott.
Mining Geology, Park.
Pharmacy and Materia Medica—
King's Dispensatory.
Materia Medica, Culbreth.
Medical Chemistry, Bartley.
National Formulary.
Organic Analysis, Prescott.
Practice of Pharmacy, Remington.
Quantitative Analysis, Sturmer and Vanderkleed.
The Art of Compounding, Scoville.
Treatise on Pharmacy, Caspari.
Manual of Toxicology, Brundage.
U. S. Dispensatory, Pharmacopœia, Homeopathy.
Zoology—
Animals, Jordan, Heath & Kellogg.
Bulletins and Reports, U. S. Entomologist.
Hough and Sedgwick, The Human Mechanism.
Insect Life, Comstock.

INDEX.

Accredited Schools, list of 24
Administration building..... 15

ADMISSION—

From accredited schools..... 23
Of special students..... 26
To sub-freshman class..... 25
Upon certificates..... 24
From other colleges..... 23
Aesthetics..... 88
Agriculture, course in..... 31
Agricultural Hall 15
Agrostology.....128
Algebra.....115
Alpha Hall..... 16
Alternating currents..... 96
American Literature.....114
Analysis, Advanced.....103
Pharmaceutical 102
Qualitative 101
Quantitative.....100
Armory 15
Astronomy 117
Athletic association 21
Attendance, Summary of.....197
Bacteriology.....140
Band, cadet.....151
Barometer..... 21
Blacksmithing 92
Board of Regents..... 4
Committees of..... 5
Botany, Cryptogamic.....128
Systematic 128
Breeds and Breeding..... 80
Breeds of Stock..... 79
Buildings and Grounds..... 15
Calculus, Differential.....116
Integral 117
Calendar..... 2
Cauthorn Hall..... 16
Chemistry, agricultural.....100
Chemistry and Pharmacy..... 98
Of Common Life.....101
Of Foods.....101
General Inorganic 99
College History..... 11
College, location of..... 14

COURSES OF STUDY—

Agriculture..... 31
Civil Engineering..... 56
Dairying 78
Forestry..... 70
Household Science..... 37
Mechanical Engineering..... 42
Electrical Engineering..... 48
Pharmacy 52
Mining 61
Literary Commerce 66
Music.....161
Sub-Freshman..... 25
Agriculture, Short Course.....154

DAIRY—

Bacteriology 157
Equipment.....156
Dairying..... 80
Short Course.....155
Degrees, Advanced..... 29

DEPARTMENTS OF INSTRUCTION—

List of..... 75
Mental and Political Science..... 76
Agriculture..... 77
History and Latin..... 83
Household Science..... 86
Modern Languages 89
Mechanical and Elec. Engineering 90
Chemistry and Pharmacy..... 98
English Language and Literature..111
Mathematics, Engineering 115
Zoology.....122
Botany and Forestry.....126
Elocution.....137
Floriculture and Gardening.....138
Bacteriology.....140
Drawing.....142
Military.....148
Physical Culture 144
Mines and Mining 145
Literary Commerce.....139
Music.....161
Domestic Lectures..... 88
Drainage 80

DRAWING—

Mechanical..... 93
Dressmaking..... 87
Dynamo design 97
Economics 76
Electrical Engineering..... 96
Electives, Chemistry.....102
Electricity and Magnetism 96
Elocution 137
Engineering, Agricultural.....119
Engineering, Mechanical..... 93
Mining 120
English Composition.....112
Rhetoric.....113
English Literature.....113
Entomology.....123
Etiquette..... 88
Equipment, Mechanical 91
Examination, State.....107
Experiment Station.....153

EXPENSES—

Assaying 109
Board 18
Chemistry.....109
Course in Piano.....164
Household Science 86
Incidental Fee, $1.00 each term.

Music, Vocal 165
Pharmacy....109
Short Course 154
Thesis.... 29
Uniform....150
Use of Typewriting Machine 139
Experiment Station....153
Faculty and Instructors 6
Committees of.... 9
Farmers' Institutes....159

FEES—
Botany.... 127
Chemistry....109
Household Science.... 88
Pharmacy 109
Typewriter....139
Zoology....123
Floriculture and Gardening....138
Foods, Chemistry of.... 101
Forestry....129
Geometry....116
German 89
Government.... 22
Graduate Work 29
Gymnasium and Armory.... 15
Hatch Act 13
Heating Plant.... 16
Histology. Animal....125
Histology, Plant 127

HISTORY—
Of Eastern Peoples.... 83
Greek and Roman.... 83
Of Institution 11
Mediæval.... 83
Modern.... 83
Horticultural building.... 16
Horticulture....135
Household Science Course.. 37
Hygiene, General.... 86
Institutes, Farmers'....159
Institution, scope of.... 27
Instruction, departments of.... 75
Ironwork 93
Irrigation.... 80
Landscape Gardening 138
Latin 84
Lectures 22
Domestic 88
Library....168
Literary Commerce Course....139
Location of College 14
Machine Design.... 94
Materia Medica and Therapeutics....105
Mathematics 115
Mechanical Drawing.... 93
Mechanics of Engineering.... 94
Mechanism.... 93
Mental and Political Science, department of.... 76
Metallurgy 146
Military Drill....148
Science 150
Roster 151
Milk and its Products 157
Mineralogy, Determinative....146
Mines and Mining 145
Mine Surveying....120
Modern Languages.... 89
Morrill Act.... 12

MUSIC—
College Orchestra....166
Glee Club....167
Piano Course....164
School of Music....161
Violin Course....165
Voice Course....165
Nomenclature....105
Officers, other than faculty.... 8
Plant Classification 127
Histology....127
Morphology....126
Pathology 128
Physiology....127
Products....128
Power House.... 16
Prescription Practice....106
Psychology 76
Regents, Board of.... 4
Roster, military....151
Sewing 87
Shopwork.... 92
Short Course, Farmers' 154
Short Course Domestic Science....155
Social Life of Students.... 18
Societies, literary 20
Soils and Manures.... 79
Soil Physics....102
Special Students 26
Standing Committees Board of Regents.... 5
Station Staff.... 10
Steam Engines and Boilers 94
Stock Feeding and Breeding.... 80
Student Life.... 17
Students, list of 171
Study, courses of.... 28
Sub-Freshman Year.... 25
Surveying 117
Synonyms....107
Therapeutics and Doses 105
Thermodynamics 94
Theses....102
Toxicology....107
Trigonometry....116
Tuition free 109
Veterinary Science.... 81
Woodwcrk.... 92

ZOOLOGY—
Evolution 124
Invertebrate....123
Vertebrate....123
Systematic 124