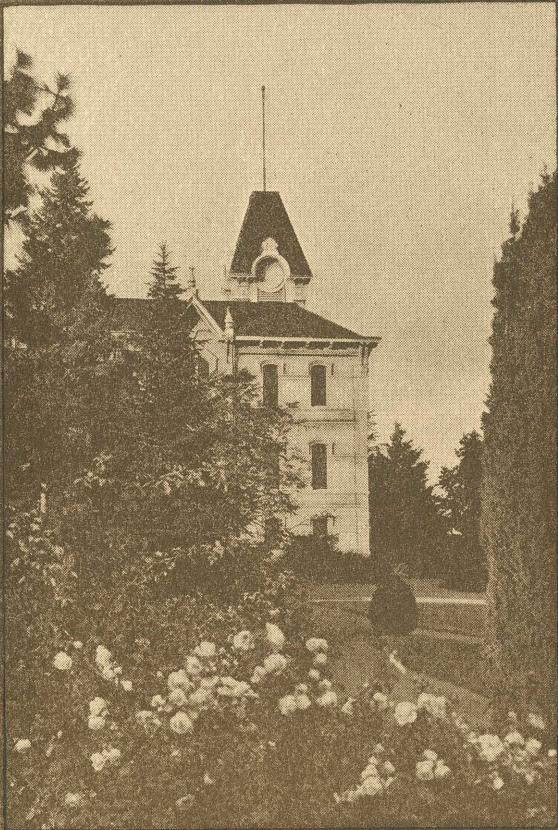


# Courses of Instruction



Oregon Agricultural  
College





# Courses of Instruction

AGRICULTURE

BASIC ARTS AND SCIENCES

COMMERCE

ENGINEERING

FORESTRY

HOME ECONOMICS

MINING

PHARMACY

VOCATIONAL EDUCATION

INDUSTRIAL CHEMISTRY

MILITARY SCIENCE

MUSIC

Oregon Agricultural College

CORVALLIS, OREGON





## OREGON AGRICULTURAL COLLEGE

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The work of the Oregon Agricultural College is organized into three main divisions: Resident Instruction, Experiment Station, and Extension Service.

- I. THE RESIDENT INSTRUCTION DIVISION includes
  - The School of Agriculture (*B.S., M.S. degrees*)
  - The School of Basic Arts and Sciences
  - The School of Commerce (*B.S. degree*)
  - The School of Engineering and Mechanic Arts (*B.S., C.E., E.E., M.E. degrees*)
  - The School of Forestry (*B.S., M.S. degrees*)
  - The School of Home Economics (*B.S., M.S. degrees*)
  - The School of Mines (*B.S. degree*)
  - The School of Pharmacy (*B.S., Ph.C. degrees*)
  - The School of Vocational Education (*B.S., M.S. degrees*)
  - The Department of Chemical Engineering (*B.S. degree*)
  - The Department of Military Science and Tactics (*B.S. degree*)
  - The School of Music (*Music Diploma*)
  - The Short Sessions (*including Summer Session and Winter Short Courses*)
- II. THE EXPERIMENT STATION DIVISION includes
  - The Home Station, at Corvallis.
  - The Branch Stations, at Union, Moro, Hermiston, Talent, Burns, Astoria, and Hood River.
- III. THE EXTENSION SERVICE DIVISION includes
  - County Agricultural Work
  - Home Demonstration Work
  - Boys' and Girls' Club Work
  - Extension Specialist Work
  - Extension Schools and Miscellaneous Extension

## AIM OF THE COLLEGE

*"The College aims to bring its advantages as near to all the people as possible; to provide a liberal, thorough, and practical education. Special emphasis is placed upon the importance of practical training, the application of scientific principles; yet the disciplinary value of education is kept constantly in view. It is recognized that the MAN and the WOMAN come before the vocation or the profession; and in all the work throughout the institution the object is to develop high ideals of manhood and womanhood, to foster all that makes for right living and good citizenship."—PRES. W. J. KERR, 1908.*



# Courses of Instruction

**O**REGON State Agricultural College, the land-grant institution of Oregon designated in 1862 in accordance with the Land-Grant Act to give a "liberal and practical education in the several pursuits and professions in life," offers courses in residence in sixty departments and ten schools.

## ADMISSION

Admission to the College is contingent upon the presentation of fifteen acceptable units of high school work or the equivalent. Complying with the uniform entrance requirements adopted by the higher educational institutions of Oregon, ten of these units must be presented from required subjects as follows: English 3 units, Algebra 1 unit, Geometry 1 unit (except in Commerce), and five other units to be selected from additional English and Mathematics, History (including Civics and Economics), Languages, and Laboratory Sciences. The five elective units may be selected from any subjects used to meet graduation requirements from standard Oregon high schools. No credit, however, is allowed for Physical Education, Penmanship, Spelling, or work which may be considered as largely a student activity. Students desiring to pursue work in any of the courses in Engineering should include in the fifteen units required for admission one-half unit of Advanced Algebra.

## ENROLLMENT

The enrollment of the College is more than three times what it was ten years ago. It is nearly five times what it was when President Kerr came to the College sixteen years ago. The total enrollment for the past five years has averaged over 4,800 students each year. Of these, from 3,500 to 3,900 have been regular collegiate students, the rest being registered in summer session or winter short courses. Men students constitute about 60 percent of the total, women students about 40 percent.

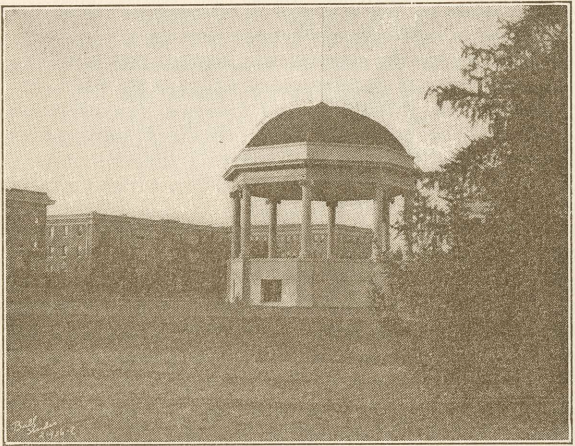
## THE COLLEGE STAFF

The faculty of the College numbers four hundred, besides many clerks, stenographers, assistants, and miscellaneous employees. The Experiment Station staff numbers sixty trained experts and the Extension Service staff numbers fifty-three.

## THE SCHOOL OF AGRICULTURE

Training in scientific agriculture is one of the leading functions of the College, and enrolls hundreds of the best youths of the Pacific Northwest every year. Only a few of the major divisions of work can be touched upon in this brief booklet.

*The Animal Husbandry Department* is in close touch with the animal industries of Oregon. Its leading men have devoted years of study to actual conditions in this state and the Pacific Northwest; they are men of superior judgment and business ability, and they conduct their courses of instruction as well as their investiga-



LOOKING NORTHWEST ACROSS THE EAST QUADRANGLE.

tions with due regard to the commercial end of the business. Specialization in beef cattle, horses, sheep, and hogs, is open to all students prepared to undertake the work, and general courses, suitable as a basis for general agriculture, are open to all students in the College.

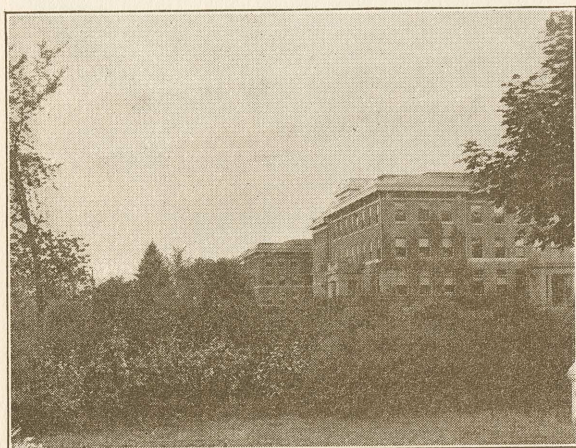
*Dairy Husbandry.* There are approximately 23,000,000 dairy cows in the United States at the present time. It is estimated that one-sixth of the food supply of the nation is derived from milk and its products. As the population of the country becomes more congested an increasing proportion of the animal food of the country will come from this source. Dairying is one of the most important agricultural industries of Oregon and the Pacific Northwest. Climatic conditions especially adapt this region to successful dairying.

*Farm Crops.* The investigations and demonstrations of the Farm Crops department in testing seeds; warn-



ing Oregon growers against fake crops exploited for gain; encouraging use of particular strains of standard crops, like Hannchen barley, Federation wheat, etc., that have been demonstrated to be permanently successful; promoting the seeding of pasture mixtures on untilled lands; the growing of alfalfa on river-bottom lands in Western Oregon; and the growing of corn for both silage and grain, have all resulted in increasing the material wealth of the state. Its work in training youths for leadership in the occupation of farming is one of the chief functions of the School of Agriculture.

*Farm Management* is a science that the exigencies of these modern times have brought sharply into the spot-



AGRICULTURAL HALL FROM THE LIBRARY LAWNS.

light. O. A. C. is emphasizing this important work both in class work on the campus and in extension work about the state. Planning the farmstead, rotation of crops, systems of farm accounting, land clearing, and dozens of other essential projects receive careful attention here.

*Farm Mechanics*, dealing with the complex and powerful types of farm machinery that enable the American farmer to do in 10 minutes of human labor what cost the Roman 4½ days of bodily toil, is a fascinating and profitable study for the farm youth of today. In this field of effort O. A. C. is remarkably well equipped to do first-class work.

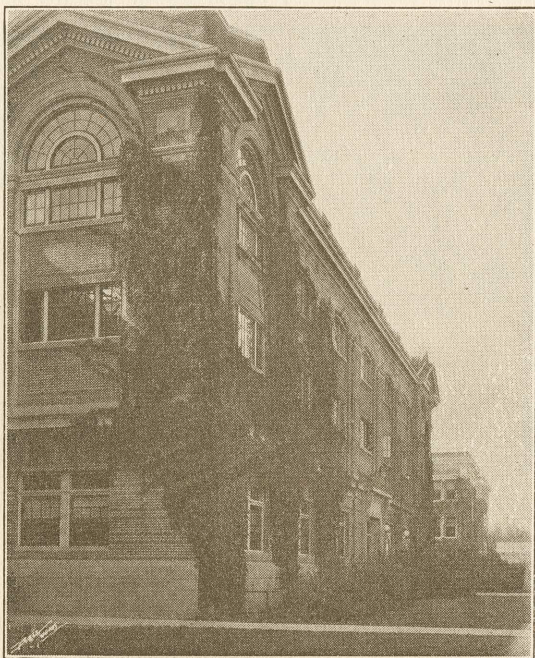
*Horticulture*. The work in Horticulture includes instruction in Pomology, Olericulture, Floriculture, Landscape Gardening, Vegetable Gardening, and Horticultural Products. The student is thoroughly grounded in the fundamentals, and is then allowed to specialize as he desires. He may thus fit himself for



experiment station or government work or prepare for the many lines of horticultural business. This work of the department is known and respected throughout the horticultural world.

*Poultry Husbandry.* The department of Poultry Husbandry has made some of the most notable discoveries in the interest of poultry production that the world has ever known, and has done more, probably, than any other college or university to promote a profitable type of poultry husbandry.

*Soils.* The work in Soils includes soil physics, soil drainage, irrigation farming, dry farming, soil fertility,



MEN'S GYMNASIUM LOOKING PAST FORESTRY BUILDING.

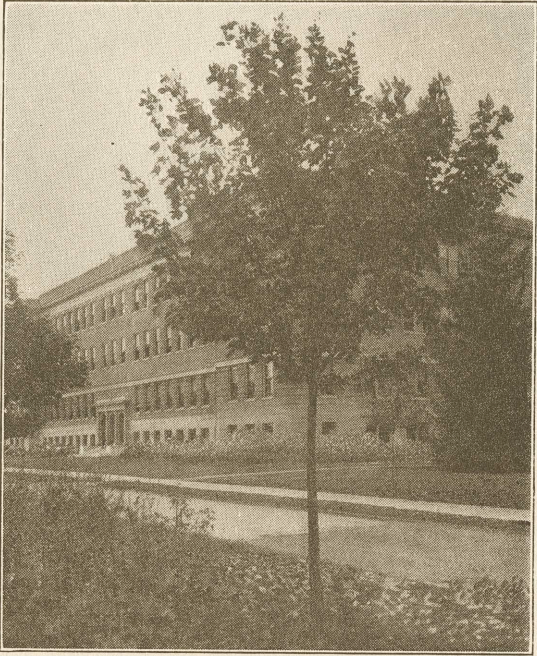
soil surveying, soil biology, and soil management. The purpose of the courses in Soils is to give the student thorough training in this important phase of agriculture, making him competent to manage a farm or preparing him for positions in state or Federal service. The wealth of Oregon rests in her soil and water resources, and their intelligent development, management, and preservation. With the further extension of state and Federal aid to reclamation, there will be a greater demand for men who have a knowledge of how most successfully and economically to use water which the engineer's canals and reservoirs provide.



## THE SCHOOL OF COMMERCE

The School of Commerce has taken a leading part in developing courses in business methods especially adapted to the farm and other industrial enterprises, the home, and cooperative institutions. Finance and Administration, Marketing, Salesmanship, Economics, Sociology, and Secretarial Training are among the subjects of study which may count toward the bachelor's degree. In the department of Political Science, a pre-legal course, giving preparation for entrance to law school, is outlined.

The School serves the interests not only of nearly



SOUTH FRONT OF COMMERCE HALL.

1000 students registered in this school, but of hundreds of others registered in other schools but pursuing courses in economics, sociology, and political economy in the interests of broader scholarship.

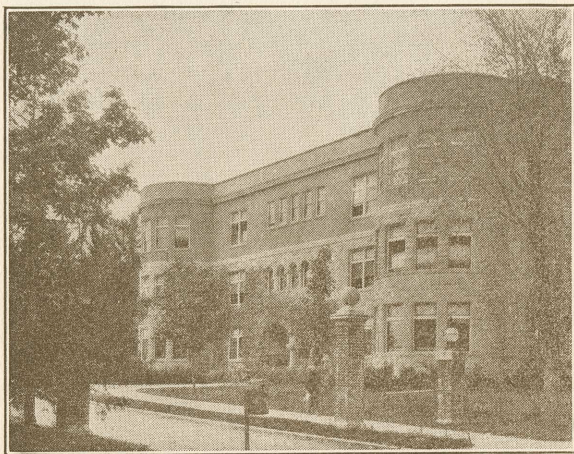
Commerce Hall, which was occupied for the first time in the fall of 1922, is a spacious and substantial building admirably adapted to its purpose. Built in the U shape, it is 186 feet long and 67 feet deep, with wings 28 by 107 feet. There are three floors above a well-lighted basement, and the building is supplied with the most approved systems of lighting, heating, and ventilating.



## THE SCHOOL OF ENGINEERING

Engineering is one of the major divisions of instruction at the College, furnishing training for nearly a thousand men, and touching the natural resources and industries of the entire state.

*Civil Engineering.* Graduates in Civil Engineering who enter that field are expected to render service in some one or more of its many subdivisions. Some of these are the location, construction, maintenance, operation, and oftentimes the appraisal of water supply, irrigation, water-power, railroad, highway, and similar transportation systems; the development and improve-



APPERSON HALL, ONE OF THE ENGINEERING GROUP.

ment of cities and of rivers and harbors; the design and construction of foundations and of the steel, concrete, or wooden structures which they support. Many graduates enter upon business careers.

After more than a generation of experience, engineering educators and engineers are pretty well agreed that the engineering school can serve best by providing for the development of character and appreciation, and by giving thorough grounding in the fundamentals of science and business. This the College aims to do.

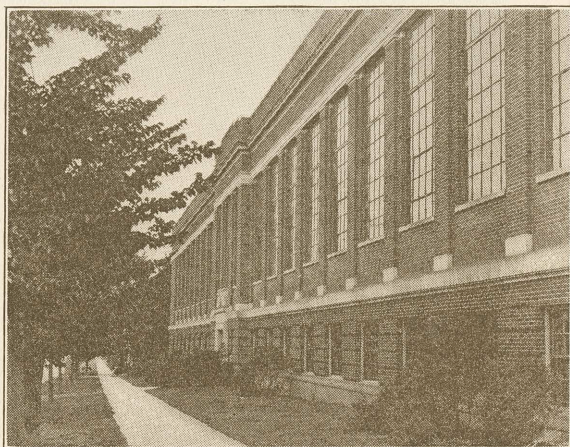
*Highway Engineering.* There are few lines of public endeavor where more money is being spent, or where a higher degree of technical skill and training is required, than in the field of highway engineering. The purpose of these courses is to meet the demand in this state and throughout the Northwest for men equipped to take charge of road and street construction and maintenance work. In addition to the opportunity for useful and honorable service, no field, it is believed, offers greater



encouragement in a financial way to the young man of ambition and ability.

*Mechanical Engineering.* A course in Mechanical Engineering leading to the bachelor's degree has been offered at the College for over twenty years. Enrollment in the course has increased enormously during the past five years. In an age conspicuous for its mechanical equipment, and largely dependent upon mechanical power, there is a man-sized job for every youth adequately trained in this technical field.

*Electrical Engineering.* New equipment and new buildings afford better opportunities than ever at O. A.



ENGINEERING LABORATORY FROM MONROE STREET.

C. for training in engineering. Electrical Engineering, preparing men for service with the great electrical manufacturing companies, telephone companies, railroads, and utility electric concerns, offers splendid training for youths who have a "bent" for this type of engineering work.

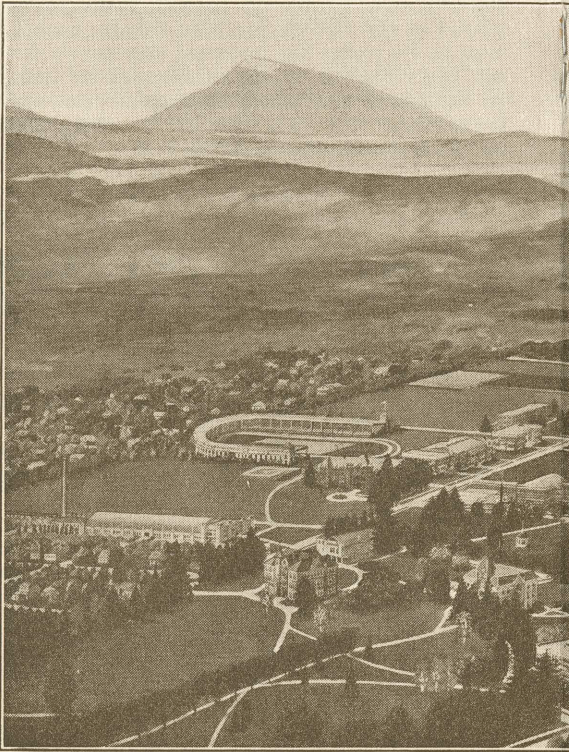
*Industrial Arts.* There is a steadily increasing demand for competent, trained teachers of the Industrial Arts subjects, in elementary, secondary, and vocational schools of Oregon and other states.

## CHEMICAL ENGINEERING

Chemical engineering has become a necessary science in the economic management of many of the industries of life. The present need in this country to create new industries to supply products of manufacture formerly imported from abroad, has emphasized the demands upon chemistry and chemical engineering.



## OREGON STATE AGR



THIS PICTURE OF THE CAMPUS AND ITS SURROUNDINGS WAS PAINTED BY  
THE CLEVELAND SCHOOL OF ART, NOW ILLUSTRATOR FOR THE COLLEGE.  
ABOUT THE SAME POINT OF VIEW. NO BUILDINGS ARE REPRESENTED  
WHICH HAVE AT LEAST ONE OR MORE UNITS CONSTRUCTED AND IN USE.  
APPEAR WHEN COMPLETED, THOUGH ONLY ONE UNIT OF THE MODERNIZED  
AND THE HOME ECONOMICS BUILDING ARE THE TWO OTHER STRUCTURES  
COMPLETED AS SHOWN. THE NEW PHARMACY BUILDING, TO BE ERRECTED  
TURE AT ALL, THOUGH IT WILL BE PAINTED IN LATER. THE PARADE  
ARE NOT INCLUDED IN THIS VIEW. THE COAST RANGE, WITH MARY'S PEAK  
REPRESENTED AS IT APPEARS FROM A HEIGHT OF ABOUT FIFTEEN HUNDRED  
ACROSS THE ENTIRE AREA REPRESENTED IN THE MIDDLE OF THE PICTURE.

\* \*

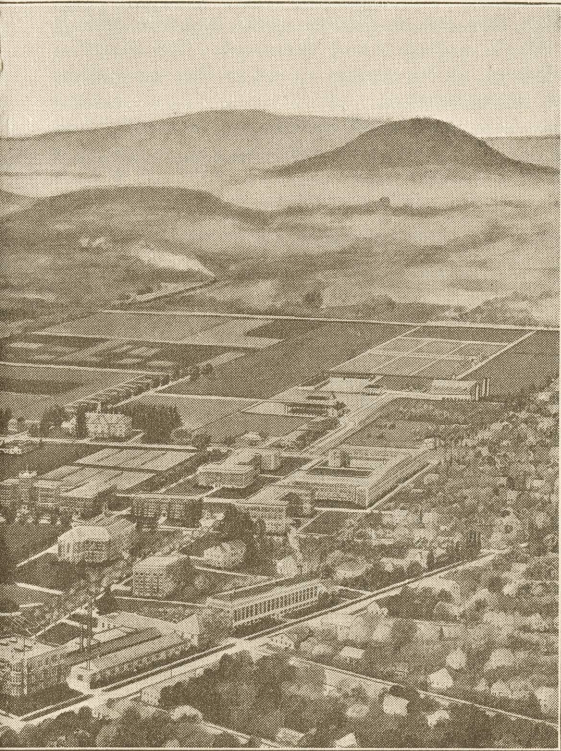
"Oregon Agricultural College . . . is more a vocational college  
as it does commerce, engineering, forestry, mining, home economics.  
*Legislative Commission on Agricultural Education.*

\* \*

"Recognized as fulfilling each requirement of a standard  
*Education, United States Bureau of Education.*



# AGRICULTURAL COLLEGE



PAINTED BY A. J. STOVER, FORMER O. A. C. STUDENT, ART STUDENT OF COLLEGE. THE PAINTING IS BASED ON AN AIR-PLANE PHOTOGRAPH FROM 1923 EXCEPT THOSE WHICH HAVE ALREADY BEEN COMPLETED OR THOSE UNDER CONSTRUCTION. THE STADIUM, FOR INSTANCE, IS REPRESENTED AS IT WILL BE WHEN THE STRUCTURE HAS THUS FAR BEEN ERECTED. MARGARET SNELL HALL AND OTHER BUILDINGS APPEARING IN THE PICTURE WHICH HAVE NOT YET BEEN FULLY COMPLETED DURING THE SUMMER OF 1924, DOES NOT APPEAR IN THIS PICTURE. THE ENTRANCE TO THE CAMPUS AT MADISON STREET AND THE ENTRANCE TO THE CAMPUS AT MADISON STREET IS IN THE LEFT BACKGROUND AND "BALDY" IN THE RIGHT, IS 1,000 FEET. THE COLLEGE FARMS AND EXPERIMENTAL PLOTS EXTEND TO THE WEST AND EAST.

\* \*

...an university than a purely agricultural college, including the economics, pharmacy, and music."—*California Special*

\* \*

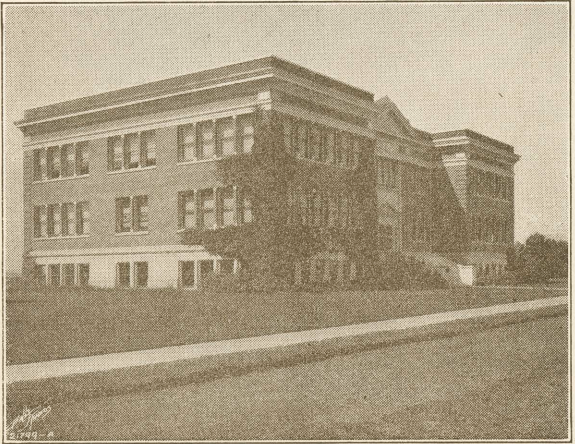
...dard college."—*Dr. George F. Zook, Specialist in Higher*



## THE SCHOOL OF FORESTRY

Since Oregon is the foremost timber state in the Union, having one-fifth of the uncut timber of the country, a distinct responsibility rests upon the commonwealth to see to it that the great timber wealth is conservatively managed and harvested. The function of the School of Forestry is to aid in the accomplishment of these results.

The work of the School of Forestry is divided into two distinct branches. One deals with the production and protection of the forest crop, while the other deals with harvesting the mature timber.



FORESTRY BUILDING.

*Logging Engineering.* The logging engineer is a recent development of the Pacific Northwest. In the past, low prices for standing timber, easy logging, and the high prices for lumber have made profits to the lumberman sure, and these same conditions have not demanded economy in operation. With high-priced stumpage, timber difficult of access, and low prices for lumber, a revolution in the entire lumber industry is being forced. It has become a case of economy in operation or financial failure. Bringing the logs over rough country to the mill involves many engineering problems. Among these are the construction of logging railroads, the installation of efficient sky-line and ground-logging devices, and the operation of special steam and electrical logging equipment. The curriculum in Logging Engineering is designed to equip young men to be of use in this field.

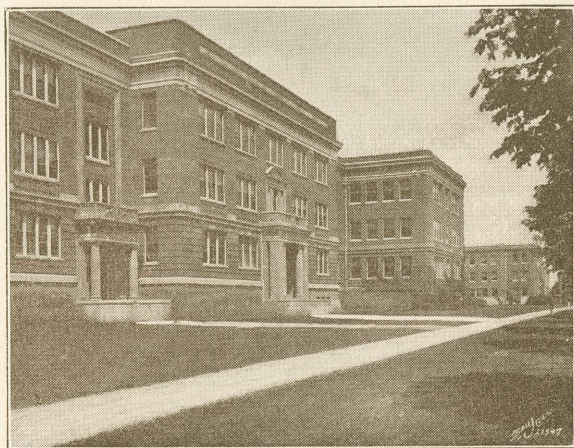
Oregon ranked second in amount of lumber cut in 1920 with 3,317,000,000 board feet. Washington state ranked first, and California fifth.



## THE SCHOOL OF HOME ECONOMICS

Quartered in the new building, provided with a thoroughly modern heating, ventilating, and sanitary system, and equipped with the most approved facilities for conducting the work of the various departments, the School of Home Economics is in a very fortunate position for making its courses of the utmost value, not only to its resident students, but to the communities of the state at large wherever its extension activities may penetrate.

Major courses are offered in Household Administration, Household Art, Institutional Management, and Household Science, all leading to a degree. There



HOME ECONOMICS BUILDING.

is a degree course which gives professional training for teaching Home Economics. A general curriculum in Home Economics combines the training needed by a homemaker with general cultural courses through a wide range of electives in various departments of the College. Special courses are offered for dietitians, homemakers, and others pursuing particular interests. A tea-room, a cafeteria, and a practice house, supplement the regular laboratories in giving practical experience and training.

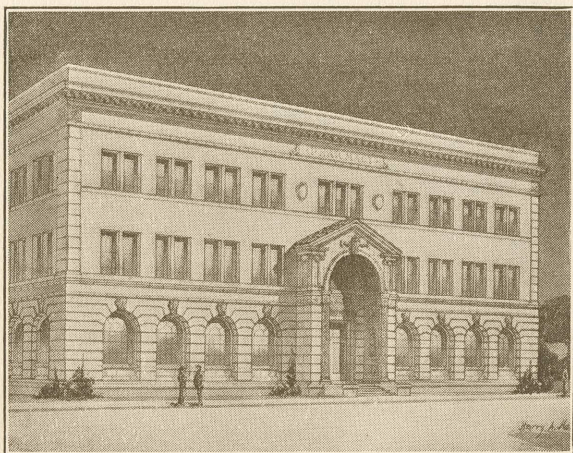
## THE SCHOOL OF MINES

The opportunities which are open to a graduate of the School of Mines include such positions as assayer, chemist, or metallurgist at mines and smelters; member of staffs of the Government and state geological surveys; member of the staff of the Government Coast and Geodetic Survey; land or deputy mineral surveyor; draftsman and designer in engineering establishments;

member of the engineering and geological staffs of mining, oil, and exploration companies and of railroads; and worker in the land-classification work of the Government forest service. Graduates may expect that after having reached the necessary maturity they will be competent to fill responsible positions in any branches of geology, mining, and metallurgy.

## THE SCHOOL OF PHARMACY

The School of Pharmacy, with a competent faculty, a record of achievement extending over twenty years, and a student body numbering nearly two hundred, is



ARCHITECT'S SKETCH OF THE PHARMACY BUILDING UPON WHICH CONSTRUCTION WILL SOON BEGIN.

working in close cooperation with the pharmaceutical profession of the state, and turning out a group of graduates each year who unfailingly meet the highest requirements of the profession. The School offers a regular four-year course leading to the degree of bachelor of science in Pharmacy, a three-year course leading to the Ph.C. degree, and a pre-medic or pre-dental course which may be pursued separately or in connection with a degree course in Pharmacy. The new building will be ready for occupancy in the fall of 1924.

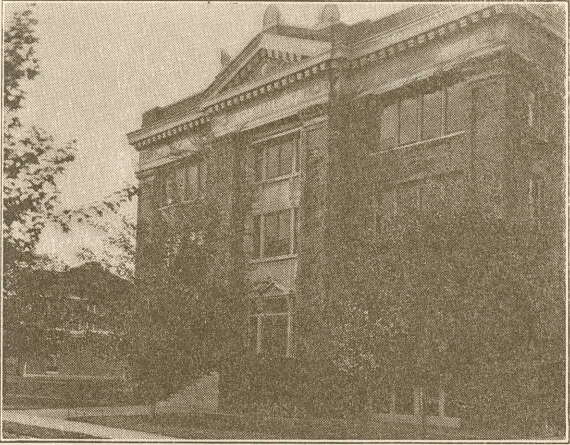
## THE SCHOOL OF VOCATIONAL EDUCATION

The School of Vocational Education trains teachers for the teaching of vocational subjects in colleges, high schools, and public schools. Most of the teachers of Smith-Hughes agriculture in the state are graduates of this School, as are also most of the teachers of manual training, home economics, and similar vocational courses.



## THE EXPERIMENT STATION

The work of the Experiment Station is fundamental in the agricultural development of the state. Oregon's soil and climatic conditions present many problems that are unique and that must be solved before the state can develop its great potential agricultural wealth. Seven branch stations, located in strategic positions about the state, assist the home Station, located at Corvallis, in attacking and solving the agricultural problems of the commonwealth. An aggressive and alert policy of administration, coupled with the most careful and detailed methods of scientific research, have combined to



MINES BUILDING.

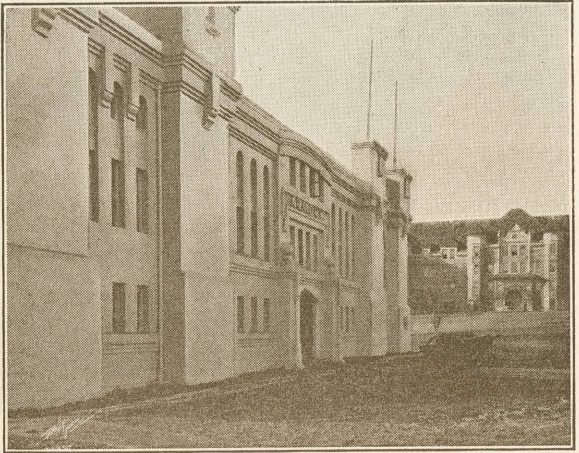
give to Oregon the honor of solving some of the most difficult and important agricultural problems of recent years.

## THE EXTENSION SERVICE

The Extension Service carries the benefits of the College to those who seek its aid on their own farms, in their own homes, and in their own communities. It devotes its attention to such forms of College instruction as lend themselves to extension methods or which can be taken and adapted to the direct needs of the people of the state. The various Extension activities are the means through which information, instruction, assistance, and methods of self-help are carried to all persons who desire them at any point within the state. In brief, the Extension Service represents the medium, both independently and in hearty cooperation with all other organized forces of betterment, for enlarging and enriching the agricultural and home interests of Oregon. No county, town, hamlet, farm, or home need be without some benefit of this service.

## "A DISTINGUISHED INSTITUTION"

Because of the excellence of its military training, which is designed to qualify men as officers of the army, the College has been regularly ranked as a distinguished institution by the U. S. War Department. Five units of the R. O. T. C.—infantry, cavalry, field artillery, engineers, and motor transport—are maintained at the College, with a personnel of nearly thirty officers of the Regular Army, sixty to seventy private soldiers, and an equipment furnished by the U. S. Government valued at over half a million dollars. A regular four years' course in military science leads to the degree of bachelor of science.



NORTH ENTRANCE OF THE COLLEGE ARMORY.

## THE SEAT OF THE COLLEGE

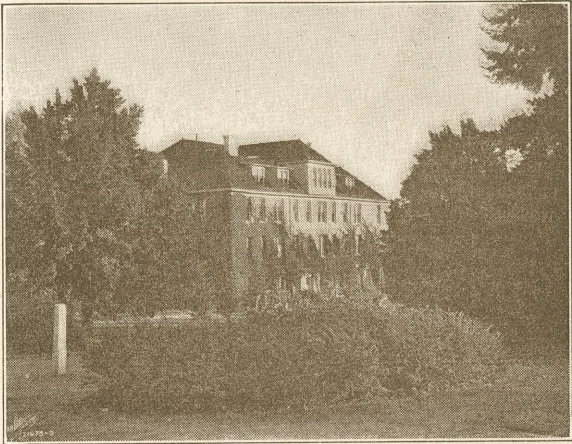
Corvallis, situated in the heart of the Willamette Valley, eighty miles south of Portland, is the seat of the Agricultural College. A city of about 7,000 people, it has fine schools, beautiful homes, many well-conducted churches, excellent paved streets, a healthy civic life, and a sense of responsibility toward the college community that helps to make student life vigorous, wholesome, and happy. A fine farming country surrounding the College affords excellent facilities for student observation and cooperative experiment; and a congenial climate makes outdoor activity a delight the year round. The neighboring mountains, the seacoast only sixty miles away, and the many adjacent streams and forests afford ample opportunity for outdoor recreation. Mountain water throughout the city, a modern sewer system, and a vigorous public health department all contribute to maintain high standards of health. Both



the East and West side Pacific Highways run into Corvallis, and two electric and two steam railroads connect the city with all western centers. Few college communities can offer more to the student in the way of essential values than Corvallis.

### RANK OF THE COLLEGE

No institution in the country has enjoyed a more rapid growth or won a more substantial recognition than the Oregon Agricultural College. In breadth of curricula, efficiency of equipment, and personnel of its faculty it has no superior among the Agricultural Colleges of the country. Its diploma requirements are



SCIENCE HALL.

standard in all departments of its work. Several of its schools are among the first in the country in point of curriculum and achievement of graduates. Its training in all phases of physical education and athletics is modern and efficient, and reaches every student in the institution. Its system of student body government, established eleven years ago, excites the admiration of all who become familiar with its operation and results. Its social life, an important factor in a coeducational institution, is well organized, ample, and altogether wholesome. Its economic importance is widely recognized, since its contact with the natural resources and the industries of the state enables it to render to the people scientific service of great practical value.

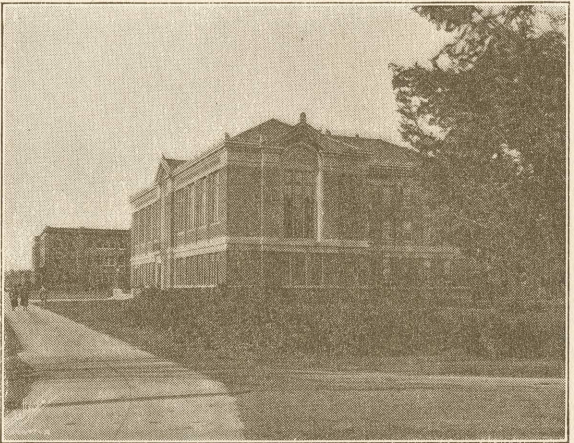
“The growth of the Oregon Agricultural College and its prominence among the educational institutions of America is a splendid prestige for Oregon. There can be no better fame for a state than that which comes from wide repute as an educational center, and Ore-

gon's agricultural college and state university are giving to the state a conspicuous distinction in that field."—*Oregon Journal, Editorial, October 13, 1919.*

## BASIC AND GENERAL TRAINING

"A liberal and practical education" is the way the Enabling Act defines what the College is to give its students. The practical courses have already been outlined. Each calls for certain cultural work in English, economics, the general sciences, civics, sociology, and physical education.

Besides the required technical and basic work, all students have the privilege of selecting additional



THE COLLEGE LIBRARY.

courses in the departments of the School of Basic Arts and Sciences, including Art and Rural Architecture, Bacteriology, Botany, Chemistry, English Language and Literature, Entomology, History, Mathematics, French, German, Spanish, Physics, Public Speaking and Dramatics, and Zoology. The departments of Economics and Sociology, Geology, Political Science, and Psychology all offer courses open to students irrespective of curriculum.

Individual instruction in music is offered in the School of Music, where the faculty is composed of highly trained artists specializing in voice, piano, string instruments, pipe-organ, orchestration, and band.

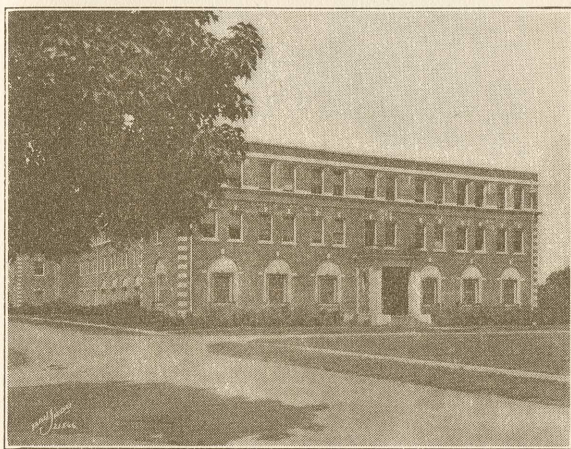
The College musical organizations, such as the Cadet Band, the Glee Club, the Madrigal Club, the Orchestra, and the Mandolin-Guitar Club are all directed by members of the faculty of the School of Music, who give their services without charge to the students for this important work.



*The College Library*, housed in a beautiful building, contains 62,000 bound volumes, 186,000 bulletins and pamphlets, and over 700 current magazines and newspapers. The circulation of books alone averages one every minute during the hours when the library is open.

## COURSES FOR WOMEN

The principal courses pursued by women at the College are those in the Schools of Home Economics, Commerce, Pharmacy, and Vocational Education. A few pursue degree courses in the School of Agriculture, principally in floriculture, landscape gardening, horticulture, and poultry husbandry, but some also in dairy-



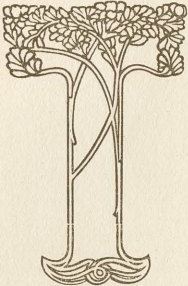
MARGARET SNELL HALL.

ing, farm management, and other courses. A few even take courses in Engineering, principally in draughting and designing; for no course in the entire institution is denied to qualified women.

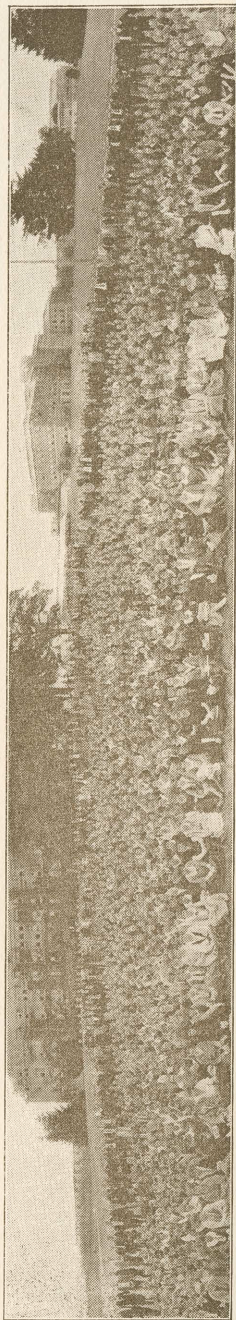
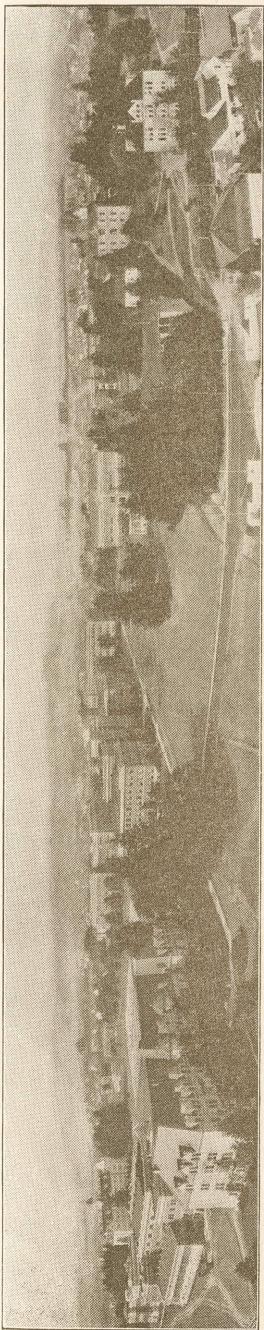
In the School of Home Economics a great variety of studies is offered ranging all the way from technical courses preparing for positions as dietitians, institutional managers, and teachers of home economics, to the broadly discerning studies that develop the home maker of discriminating taste and artistic accomplishments. In the School of Commerce women specialize in courses that prepare them as accountants, office managers, secretaries, and for various positions involving salesmanship, a knowledge of modern business methods and equipment, household budgets and household accounts. In Pharmacy practically all studies are open to women, for some of which they have aptitudes surpassing those of men. In Vocational Education all

specialized teaching positions in Smith-Hughes work, as well as in general technical courses, are open to women.

Many women take special courses in physical education and in music at the College, some in industrial journalism, pursuing such a course as a minor while majoring in one of the degree courses.





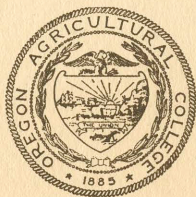


*Above:* GENERAL CAMPUS VIEW FROM THE ARMORY, SHOWING THE WEST QUADRANGLE AT THE LEFT AND THE EAST QUADRANGLE IN THE CENTER.  
*Below:* OUTDOOR STUDENT MEETING SHOWING WALDO HALL, AGRICULTURAL GROUP, AND THE LIBRARY IN BACKGROUND.









BULLETIN

ISSUED MONTHLY

No. 391 Corvallis, Ore.

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February, 1924

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