

NEW SERIES
WILLAMETTE UNIVERSITY BULLETIN

(Published Monthly)

VOL. V

SALEM, OREGON, FEBRUARY, 1913

NO. 8

Entered as second-class matter, August 24, 1911, at the Post Office at Salem, Oregon, under the Act of July 16, 1894

SCIENCE NUMBER



M. E. PECK

A. B. and A. M., Cornell College. Research work in Central America three years collecting specimens for the University of Iowa.

Professor of Biology



FLORIAN VON ESCHEN

Ph. B. and Ph. M., Simpson College. Graduate
Student University of Chicago 1905-07; also
Washington University 1907-09.

Professor of Physics and Chemistry

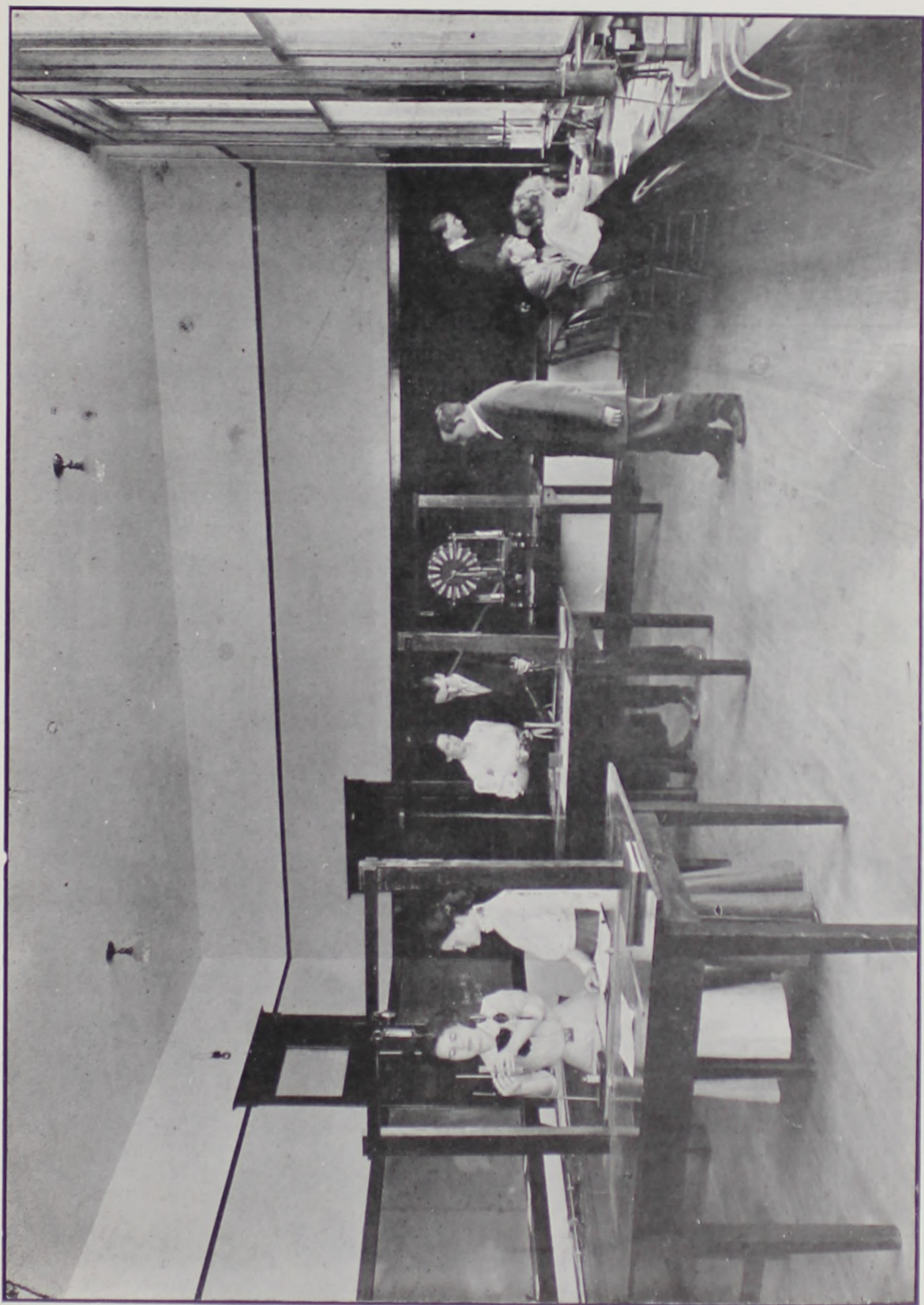
DEPARTMENT OF PHYSICAL SCIENCE.

The Department of Physical Sciences has, during the past year, made considerable advancement and improvements. In the Department of Physics considerable new equipment has been added for the courses given. There has also been added a high-grade barometer to give an accurate record of atmospheric pressure. Our set of wireless instruments has been installed and is in working condition.

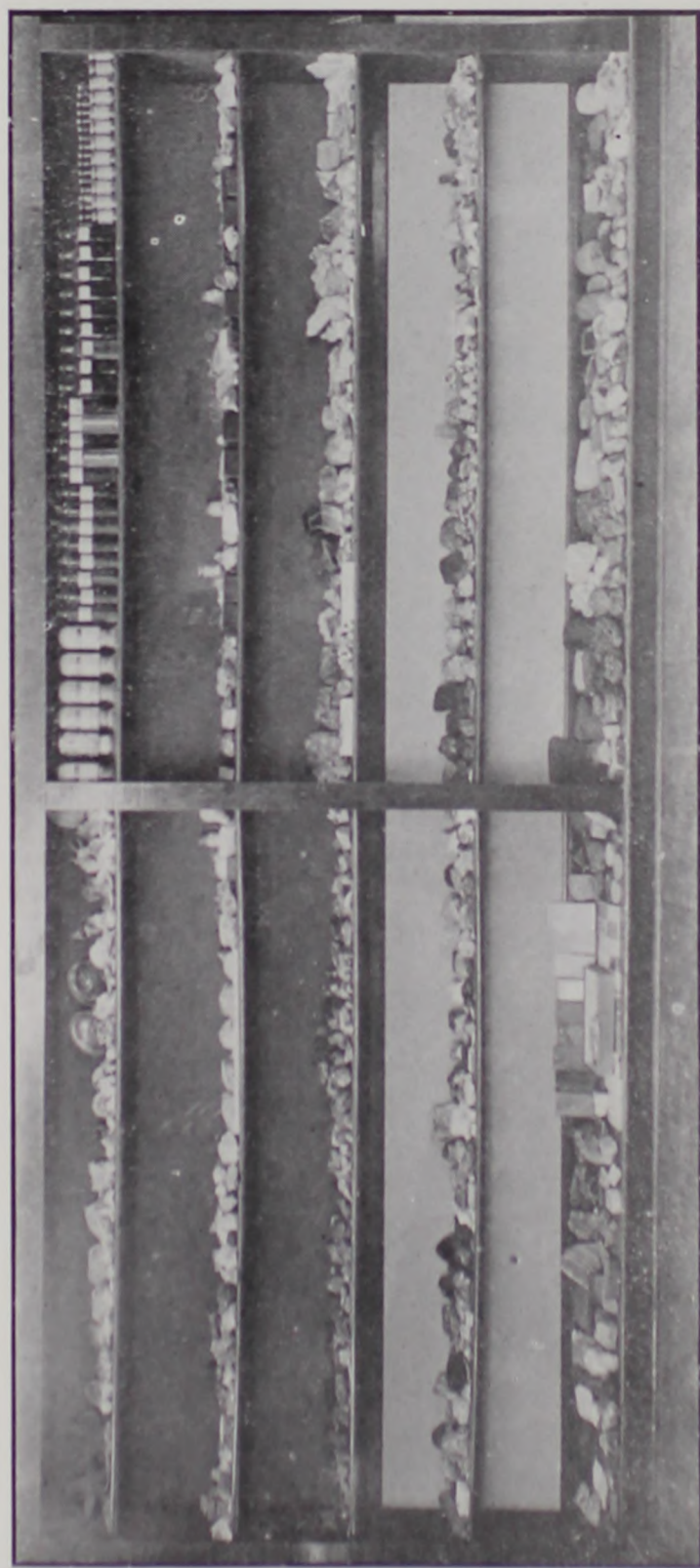
From August 1, 1911, to October 1, 1912, the United States Geological Survey had a laboratory for water analysis on the second floor of the Chapel building. On October 1 this laboratory with all its equipment, except the balance and platinum ware, was taken over by the Department of Chemistry. This added more room and facilities for the work in Chemistry and has given the Department a great deal of accurate apparatus, and it is now equipped for all kinds of water analysis. A complete equipment for the analysis of milk, butter and other food products has also been secured. A new eight-crucible furnace and a three-inch Carey Burner are also on hand ready to be installed for use in assaying.

As stated, under the Department of Biology, that Department in conjunction with the Department of Physical Science has secured a high-grade balopticon which is proving very valuable in some of the lecture work.

The advancement, along the various lines, has been very gratifying to those in charge.



PHYSICS LABORATORY



A SECTION OF MINERALOGICAL COLLECTION

During the year our supply of minerals has been augmented by a collection of 100 or more specimens from the Smithsonian Institution at Washington. A few have also been received from Mrs. Emily Showers, of Forest Grove, and a considerable number of Oregon minerals have also been collected by the Department. These specimens are constantly made use of in the work in geology showing the various forms in which the different minerals are found in nature and the different varieties of the same minerals illustrating the different changes produced by the various forces of nature. They are also used during the second semester in the class in general chemistry to show the forms and varieties of structure of the metals and their compounds as found in nature.

ETHNOLOGICAL COLLECTION.

An old writer tells us that a "proper study for Mankind, is Man." Granted. But how shall we pursue the study? Shall we as textbooks use the printed page—may we not, with these, use specimens of the work of the peoples of whom we would learn—their weapons, articles used in daily life—the ornaments in which they take pleasure—and the like?

We seek to be helpful to those who desire to learn of the other peoples of the earth. In the library, we have a complete set of the Reports of the Bureau of Ethnology—Washington City. This is in some fifty great octavo volumes—a library of itself. Nowhere can be found more satisfactory accounts of the native races of our country, than here. The folk lore—the songs, both the words and the music—the strange ceremonies of their worship; and of their secret orders; the "Free Masonry" of the Iroquois; the wonderful sand pictures of the Navajos—all these are here.

We have the beginning of a collection of objects to illustrate the lives and habits of the native—and other races. Our set of pictures of the idols of the Hindoos is unique. The pictures are in water color; and were painted by native Hindoo artists. Our collection of the flint weapons used by the Indians, comprises about six hundred specimens that are artistically arranged for wall display. Hundreds of others are exhibited in other ways.

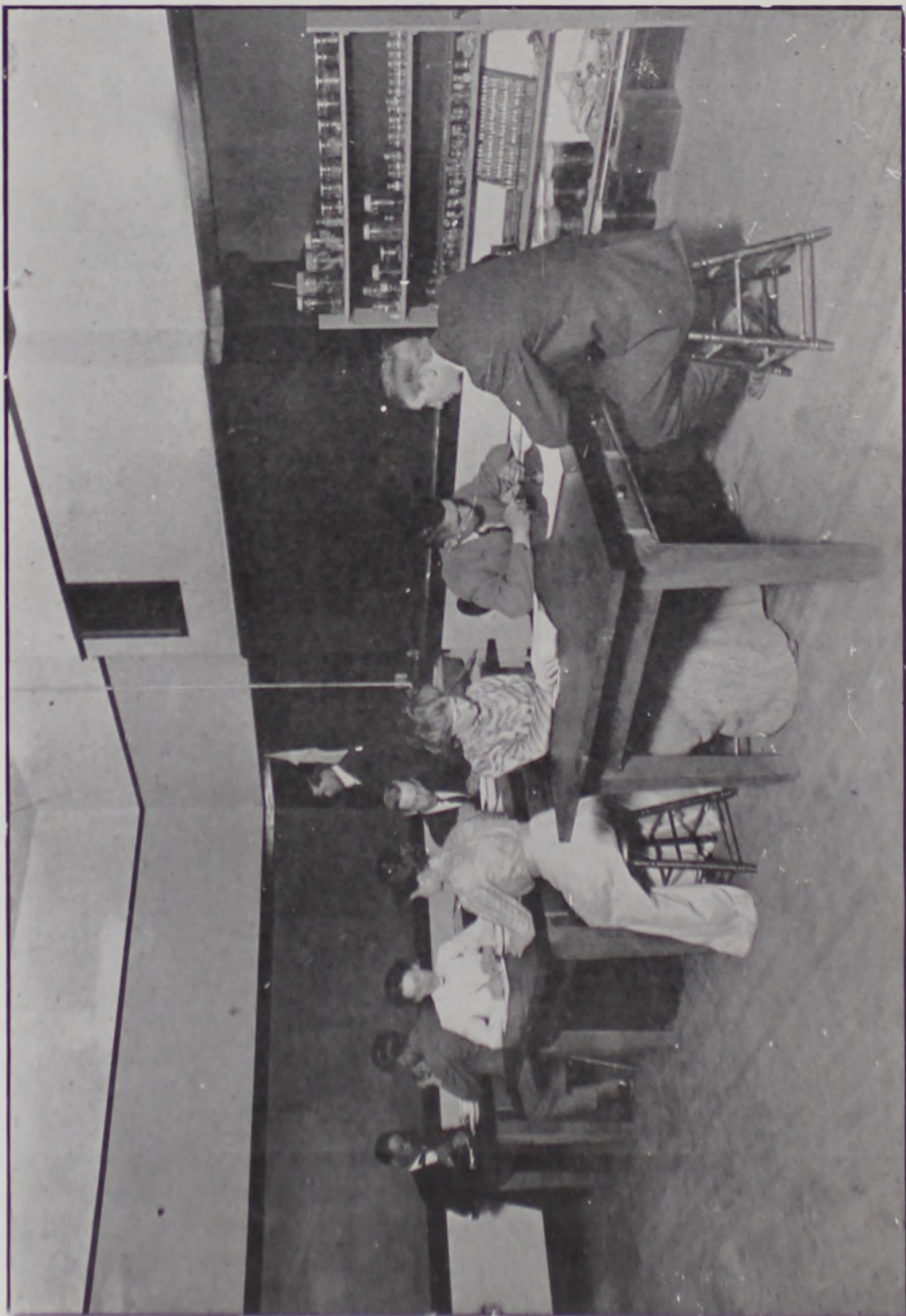
Here are interesting objects from the Hopi, or Moki People of New Mexico and Arizona—people of the Pueblo, or community houses. Here are pipes from the Great Pipestone Quarry—that, to the Indians of the past, was the most sacred place on the earth—and which the United States Government still holds as a reservation for the Red Race.

Here are objects from the Philippine Islands—some indicating the Spanish occupation; and, as illustrations of the vices of the Islanders—here are shears for cutting the betel nut (used, in some measure, as "civilized" people use another article)—here is a "lariat" used in staking out a fighting rooster—and here are cards and coins used in various gambling games.

Here are newspapers in a score of languages—including a copy of the Peking Gazette—the oldest paper in the world. An "ad" in this paper from South Africa assures its patrons that the genuine, high-grade Oregon Pine Lumber can be had in assorted sizes and lengths; while this paper from Baluchistan declares that the Chamberlain Remedies from Des Moines, Iowa, are the proper articles for family use.

Here is a "book"—the "leaves" of which were cut from "leaves" of the palm tree of Ceylon; and here is a miniature copy of "The Law of Moses"—on rollers, the book made and used as the custom of the Jews has ever been, for the copies of The Law in the Synagogue.

—James Lisle, A.M., Ph.D.,
Librarian and Curator of Museum.



BIOLOGICAL LABORATORY



A SECTION OF THE ORNITHOLOGICAL COLLECTION

Showing some of the fauna of Central America. Professor Peck of this department has been making a special study of the birds of Oregon and it is hoped we may soon have a collection of Oregon birds.

DEPARTMENT OF BIOLOGY.

The present year has brought many improvements in the working facilities of the Department of Biology. In addition to the doubling of the laboratory space, much has been added in the way of equipment. The Department, conjointly with that of Physical Sciences, has secured a high-grade Bausch & Lomb balopticon, equipped for opaque and microscopic projection. It will be of immense value in lecture work. Seven new Bausch & Lomb microscopes have been purchased, so that, with those already on hand, the Department is now well equipped in this line. Among the new acquisitions there is also a fine human skeleton, the need of which has hitherto been keenly felt.

To accommodate the increase in the size of the Herbarium it has been necessary to secure another large cabinet. Over a thousand specimens were added during the past season to the collection of the flowering plants of Oregon, which brings the number up to about thirty-five hundred, including, it is estimated, nearly two-thirds of the species occurring in the state.

Professor M. E. Peck has done considerable work throughout the state in the interests of the state museum which is in charge of W. L. Finley, Game Warden. He has made a careful study of the birds of Oregon, and secured a number of specimens for the museum.

As a result of his investigations of the bird life of the state, he says that Oregon has an enormous bird fauna. A large number of the species are distinctly local. Beyond the Cascade Mountains, outside of a few places such as towns, or wooded streams, he found scarcely any birds such as make their habitat in the fir forests of Western Oregon. He found that geographical features had a great deal to do with the distribution of so many different kinds of birds. Out in the sage brush plains he discovered a bird peculiar to that region and found no where else. In other sections he found birds distinctly local in character.

Oregon has from three hundred and fifty to four hundred species and sub-species. This is large and is perhaps exceeded only by California, which has over four hundred species, probably the largest number in the United States.

In addition to securing about one hundred and thirty specimens of birds for the state, he procured a number of specimens of sea plant life for the laboratories of the University and about a thousand specimens of plants for the University herbarium.