

Mines. This is said to be the first time that a course in geophysics has been introduced into an American college or university.

ASSISTANT PROFESSOR F. W. OWENS, of Cornell University, has been appointed head of the department of mathematics at Pennsylvania State College.

DR. A. F. O. GERMANN has resigned his position with the Laboratory Products Company, where he was in charge of development and research, in order to organize work in chemistry at Valparaiso University, Indiana.

PROFESSOR A. C. SEWARD, master of Downing College and professor of botany in the University of Cambridge, has relinquished the office of vice-chancellor of the university which he has held for the past two years. He is succeeded by the Rev. George Arthur Weeks, master of Sidney Sussex College.

DR. J. H. SIMONS, head of the department of chemistry at the University of Porto Rico, has joined the staff of Northwestern University, where he will continue his researches in physical chemistry.

ERNEST CLARE BOWER, associate astronomer at the U. S. Naval Observatory, has been appointed assistant professor of astronomy and mathematics in Ohio Wesleyan University.

DR. S. B. CHANDLER, of Northwestern University, and Dr. Gordon H. Scott, of the University of Minnesota, have been appointed to assistant professorships in anatomy in Loyola University School of Medicine, Chicago.

DISCUSSION AND CORRESPONDENCE

THE USE OF PITH DUST IN A KUNDT'S TUBE

DURING the summer of 1924, while experimenting at Indiana University with a Kundt's tube, I discovered that the striae could be most readily observed by using pith dust in the tube.

I obtained the pith dust by grinding dry pith from sunflower on a fine-grained emery wheel. By the use of this dust I was able to obtain discs that extended completely across the tube and having the same diameter as the inside of the tube.

These striae were obtained by the ordinary method used with a Kundt's tube, but for demonstration purposes I found the following to be an excellent way to produce them: Some pith dust was placed in a glass tube of any convenient length and diameter. In one end of the tube a stopper was placed and the open end of the tube was inserted in the open end of a sounding organ pipe. When the tube was inserted the proper distance the striae formed at regularly

spaced intervals and showed the nodes and loops in an excellent way. Discs apparently but one particle in thickness were formed and when the tube was carefully adjusted with regard to distance to which it was inserted into the organ pipe the separate particles remained almost motionless. Often they wove themselves into thin sheets and when the air was turned off they fell over, maintaining the sheet form.

Also I obtained these striae by passing an electric spark across the end of a glass tube (either open or closed) into which some pith dust had been placed. The howl produced by a telephone receiver excited excellent striae in a glass tube. Some photographs of the striae were made.

Pith dust being lighter than cork dust gives striae of greater height than the latter. As it does not adhere to the tube I find its use for this purpose better than lycopodium powder.

ROLLA V. COOK

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TWO INTRODUCED PLANTS OF RARE OCCURRENCE IN THE UNITED STATES

Two plants of very rare occurrence in the United States have come to the writer's attention in this section in the last few years and it seems worth while to broadcast the news for interested botanists.

Two specimens of *Tagetes minuta*, L., were found in a field of Rhodes grass in Riverside, California, in 1921. Thinking them to be marigolds the rancher transplanted them by his house, where they grew to be ten and eleven feet high with a spread of five to six feet. They were identified by Miss Alice Eastwood, of the California Academy of Sciences, and the Smithsonian Institution later reported that the plant had been reported only once before in this country, from North Carolina—probably having been introduced upon ballast in some boat. The Rhodes grass seed used for planting the field in which the plants were found at Riverside was imported from Australia.

Three plants of an unrecognized *Erodium* were found in the cover crop of a lemon orchard at Corona, California, on February 26, 1923. Purple vetch had been sown as a cover crop, the seed doubtless coming from Washington or Oregon, but its germination was very poor and the majority of the cover crop growth was made up of our common *Erodium cicutarium*.

Only a flower specimen of the plant was saved in 1923. Owing to a very dry winter there was practically no cover crop growth in this orchard in 1924, but in 1925 about twenty plants of the new *Erodium* were found and it was identified by Miss Alice Eastwood, of the California Academy of Sciences, and by Dr. I. M. Johnston, at the Gray Herbarium, as *E.*

cygnonum, Nees., a native of Australia and New Zealand. This species was reported only twice previously on March 18, 1917, near San Diego, California, and on September 5, 1917, on a wool-waste dump at North Chelmsford, Massachusetts.

An interesting observation regarding the blooming of this species was that while the flowers of *E. cicutarium* were withered and fallen by eight or eight-thirty o'clock on bright mornings, the flowers of *E. cygnonum* were only half opened at that time and they persisted till about one o'clock in full sunshine.

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PROTECTION OF THE TUMION IN FLORIDA

OUR national monuments should be protected before it is too late. Lack of a state forestry policy and the rapid disappearance of so much natural beauty in many states are already causing much alarm. Beautiful sights along lakes and mountains are denuded, and our immense forests are destroyed for the lumber trade, without any attempt to renew them on a technical basis. These facts are known throughout the world. Quite recently the Count of Schwerin and Freiherr von Thielmann, both in Berlin, have drawn attention to this fact to foresters and scientists in European countries. They stressed the disappearance of the beautiful forests in the United States.

It becomes of international importance when certain forest species become extinct. Such a forest is found along the bluffs on the east bank of the Apalachicola River from Chattahoochee to Bristol in the northwestern part of Florida. Along a distance of hardly seven miles we find some extremely rare trees, namely, *Tumion taxifolium* Greene and *Taxus floridana* Chapm. Both are coniferous trees; the former reaches a height of 30 to 40 feet and the latter becomes rarely 25 feet high. No doubt both are relicts of ages long past, when a considerable part of the country was covered with these and perhaps other related species.

When the glacial periods came over a large portion of this country and over Europe and Asia, the geographical distribution of these plants was gradually pushed back to some protected and favorable areas along the Apalachicola River. These rare trees are generally used in this region as Christmas trees, thus hastening their disappearance in their natural environment.

I urgently ask those who are interested in the rare forest flora of that small area along the Apalachicola River to have this region protected as a national

park. It will be of great benefit to science to have this place as a natural monument that will be cared for throughout the ages. If no immediate steps are taken but a very few years will elapse before that section will be completely denuded of all its natural beauty.

The United States, when we consider its large area, is not too rich in protected natural monuments nor in national parks. Its forest destruction goes on day by day without proper management. We could not do better than to repeat the words of Baron Ferdinand von Müller: "I regard the forest as a heritage given to us by nature, not for spoil or to devastate, but to be wisely used, reverently honored and carefully maintained."

J. C. TH. UPHOF

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POLEMONIUM SEEDS

DURING some years I have been engaged in genetical work on the genus *Polemonium* (Polemoniaceae) which seems well fitted for studies of that kind. By means of the seed catalogues of the Botanical Gardens of the northern hemisphere I have got numerous collections of seeds supposed to represent a rather large number of species, but growing experiments showed that under the many names really only few species were present, the identifications in many cases being erroneous.

As most of the species occur in North America it is difficult for a European botanist to get seeds from wild-growing specimens, and therefore, I ask American botanists to help me by collecting seeds of species which they may come across and send them to me. I shall be very grateful for such assistance.

C. H. OSTENFELD

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SCIENTIFIC BOOKS

Elements of Astronomy. By E. A. FATH. VIII + 307 pp., 191 figures. McGraw-Hill Book Co., N. Y. Price, \$3.00. 1926.

And still they gazed and still their wonder grew,
That one small head could carry all he knew.

THE reader of Professor Fath's "Elements of Astronomy" is left in much the same frame of mind as were the rustics of the "Deserted Village" after contemplating their schoolmaster. In a book of slightly less than three hundred pages of text we find the elements of practically everything that had been accomplished in astronomy up to the end of 1925. The book should receive a hearty welcome from teach-