THE department of botany of Rutgers University is the recipient of an herbarium collection of ten thousand dried plants, presented by Mr. E. D. Riley, of Absecon, N. J. This collection contains valuable material from the southern part of the state, and a considerable number of plants from Ohio and California as well. A part of the collection was exhibited by Mr. Riley at the Columbian Exposition. Founded by Dr. N. L. Britton, botanist of the *Geological Survey,* in the years of 1881–1890, the State Herbarium has been developed until it contains a considerable representation of the flora of the state.

UNIVERSITY AND EDUCATIONAL NOTES

FRIENDS of Professor William Berryman Scott, chairman of the department of geology at Princeton University, plan to raise $50,000 to establish a Scott research fund in paleontology, as part of the $2,000,000 fund which Princeton is endeavoring to raise for advanced teaching and scientific research.

AT the University of London, a university chair of bacteriology and immunology, tenable at the London School of Hygiene and Tropical Medicine, and a university chair of epidemiology and vital statistics, tenable at the London School of Hygiene and Tropical Medicine, have been instituted.

PROFESSOR ARNOLD BENNETT HALL, of the department of political science at the University of Wisconsin, has announced his acceptance of the presidency of the University of Oregon and will assume his duties in September.

IT is announced from the University of Wisconsin that Professor Arthur Sperry Pearse, of the department of zoology, has resigned to accept a research professorship in Duke University, Durham, S. C. He is now on a leave of absence, studying in the London School of Tropical Medicine.

DR. A. A. MOORE, professor of physiology at Rutgers University, has recently accepted the position of professor of zoology at the University of Oregon.

THE department of botany at the University of Texas has been reorganized to provide for the development of courses in bacteriology given by the department. The name has been changed to the department of botany and bacteriology. The staff in botany consists of Professors I. M. Lewis, F. McAllister, John T. Buchholz and Associate Professor B. C. Tharp; in bacteriology, Professor I. M. Lewis, Adjunct Professors E. E. Pittman and O. B. Williams.

THE recent announcement of changes in the department of mathematics at Princeton University should read as follows: Dr. J. W. Alexander has been made associate professor and Dr. Tracy Yerkes Thomas has been made assistant professor.

PROFESSOR L. E. BLACKMAN, formerly employed as research chemist at the University of Delaware, Agricultural Experiment Station, has been appointed to the headship of the chemistry department of Upper Iowa University, Fayette, Iowa.

RECENT promotions at Princeton University include the following: Associate professors, B. F. Howell, A. F. Budington, R. M. Field, in the department of geology; F. A. Heacock, department of engineering; assistant professor, Philip Kissam, department of engineering.

DR. V. A. TAN has been appointed to a professorship of mathematics at the University of the Philippines. He received the doctorate at the University of Chicago in June, 1925.

DISCUSSION AND CORRESPONDENCE

ANTAEUS, OR THE FUTURE OF GEOLOGY

IT may seem strange for a scientist to venture to offer a defense of the study of the classics in these days of uneducated scientific experts, and yet I can not help but feel that the older and now largely discredited training prepared one somewhat better for life, even the life of a well-rounded scientist, than the present technological preparation for a profession. I am not denying that the quintessence of culture can be gotten out of any science, but we are not all Huxleys, and one must ruefully admit that among us mediocre men who necessarily make up the bulk of the present day enlarged army of scientists, the full life is exceptional, and the cultural level is exceedingly low.

One never ceases to wonder at the important truths tucked away in Greek mythology, and among these there is none so full of meaning for every one as the legend of Antaeus, and it contains also a most serious and timely warning for geologists. To the man in the street its moral has been unconsciously voiced in the compelling phrase "Getting down to brass tacks."

Antaeus was a Libyan giant, the son of Poseidon and Gaea, and it could not be more appropriate than that the personification of geology should be the son of such a fitting union as the sea and the earth, and what could be nearer the mark of expressing the true ideal of a geologist? Antaeus compelled all strangers passing through the land to wrestle with him. When thrown, as he permitted himself to be, the strength which came to him from this contact with mother earth rendered him invincible, and he was thus enabled to build a temple with the skulls of his victims.

Some of the leaders in current geological thought are what Diener, in the Introduction to his admirable little book on Biostratigraphy, calls devotees of geoposie, geotheosophie, or transcendental geology, and it is for these that the story of Antaeus originated several thousands of years ago, although it contains a moral that all of us can reflect upon with profit.

Let me recall what finally happened to Antaeus. Heracles, discovering the apparently hidden source of his strength, lifted him up and held him away from the earth, and thus was able to crush him to death, and so he perished miserably.

According to their varying temperaments the wisdom of all of the ancients voices the same admonition for geologists. We find in the book of Job the phrase "Speak to the earth and it shall teach thee," and be it remembered that it is only in this way that a geologist may acquire wisdom—it is not obtained by floating above the clouds with Jupiter, nor by projecting oneself in imagination into the realm of his brother Pluto, and I believe that much that passes as science in current geological writings is not science at all, however pleasing it may sound.

The same thought is repeated for us in the words of the saintly flower of medieval monasticism, the abbot of Clairvaux, who says: "Trees and rocks will teach what thou canst not hear from a master." (Bernard, 1090–1153.) It behooves us then, if we are to add a chapel or a pinnacle, or even an additional column, arch or foundation stone to the Temple of Geology, to stop our ears to the lure of the sirens of speculation, and the imaginary spiritualistic voices of arm chair philosophy, and to hie ourselves to the seashore and the rocks.

Otherwise the fate of Antaeus is sure to overtake us, if it has not already done so.

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UPPER PLEISTOCENE OCCURRENCE ALONG THE OAXACA COAST OF MEXICO

THE Oaxaca coast of Mexico is a series of alternating depressions and elevations. In one of the recently elevated areas there are exposed patches of Upper Pleistocene for a distance of some twenty-eight miles. In some places the formation is exposed along the shore and in others a mile and a half inland. It forms a low cliff with an extreme elevation, where observed, of fifty! At other points it is but a few feet high and in still others it is exposed only at low tide.

For the most part the formation is a soft gray or buff sandstone, though locally it is hard and flinty. In one of the exposures there is an abundant fauna that is remarkably preserved. Many of the extremely fragile shells are entirely intact, gastropods with protoconchs are common and in many cases the colors still persist. The preservation of the forms are, almost without exception, better than that of the shells living along the coast. This preservation and the absence of any appreciable cross-bedding are indicative of tranquil shore conditions, which strongly contrasts with the present-day wave-buffeted strand.

A majority of the forms are the same as those now living along the present beach; some are not known to be living and a few show slight though constant differences from their living descendants, suggesting that evolution has been operative since Pleistocene times among the invertebrates as well as among the vertebrates.

Another fact of interest is that among this fauna there are ten or more species that are reported only from Panama and further south. This indicates that the sea was somewhat warmer than at present, which is in accord with the northern migration along the west coast that is known to have occurred during Upper Pleistocene.

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CONSERVATION OF OUR NATIVE CHESTNUT

IN 1924 the writer published a note[1] concerning the survival of chestnut trees in Pennsylvania, on an area in which the trees were carefully measured for new growth and blighted wood. It was found that the new growth was eighteen times that killed in the same year. Other observers, as Clute,[2] Collins,[3] Gravatt,[4] Graves[5] and Hodson,[6] have noted immunity to some degree, or recovery of portions once blighted. The bark at the base has been demonstrated (Graves, *l. c.*) to be more resistant, apparently because of a larger tannin content.

In the past summer (1925) the same plot was resurveyed and the ratio of new to old growth was

[1] Kelley, A. P., 1924, "Chestnut Trees Surviving Blight," SCIENCE, n.s. 60: 292–293.

[2] Clute, W. N., 1924, "Resistant Chestnuts," *Am. Bot.*, 30: 168–169.

[3] Collins, J. F., 1920, "Note on Resistance of Chestnut to Blight," *Phytopath.*, 10: 368–371.

[4] Gravatt, G. F., 1926, "Scouting for Blight Resistant Chestnuts," *Amer. Nut Journ.*, 24: 8.

[5] Graves, A. H., 1926, "The Present Continued Development of Basal Shoots from Blighted Chestnut Trees," SCIENCE, n.s. 63: 164–165.

[6] Hodson, E. R., 1920, "Is American Chestnut Developing Immunity to the Blight?" *Journ. Forestry*, 18: 693–700.