

and a few corrections), which was issued by the University of California in 1888, and from the annual publications of the Lick Observatory (printed in the *American Journal of Science*, the *Publications of the Astronomical Society of the Pacific*, the *Bulletins of the United States Geological Survey*) since that date. The annual records referred to have been compiled by Messrs. Holden, Keeler and Perrine from observations at Mt. Hamilton, and from miscellaneous reports of earthquake shocks. They have been thoroughly sifted and revised in the present work, which is believed to contain all trustworthy data on the subject of Pacific coast earthquakes since 1769.

IN a monograph entitled 'A revision of the American Lemnaceae occurring north of Mexico,' printed in advance from the Ninth Annual Report of the Missouri Botanical Garden, Mr. C. H. Thompson, in continuation of his studies of ligulate Wolffias, published in the Eighth Report, has now brought together, in concise form and with good keys, a synopsis of the entire Order Lemnaceae, as represented in our flora, each species, in addition to a good description, being represented by excellent figures illustrating its habit and structural details. The paper should stimulate increased study of this interesting group of aquatics, the smallest of flowering plants.

WE understand that subscriptions toward the purchase of the paleontological collections of the late Professor Cope for the Philadelphia Academy of Natural Sciences are far from reaching the needed sum. A recent issue of the Philadelphia *Ledger* contains an editorial urging the importance of securing these collections. It remarks:

"The public spirit of the citizens of this city should not make it possible for the collections to be taken elsewhere, as they embrace many of the specimens on which Professor Cope based his original descriptions, and this type material is simply priceless, since it cannot be duplicated. If through the liberality of those interested in the progress of science the Academy of Natural Sciences be placed in possession of this material, that institution will then have in its museum the type collections of Leidy and Cope, two of

the greatest authorities on the monsters of the pre-historic world."

SIMULTANEOUSLY with the starting of the railroad at Buluwayo, says the New York *Tribune*, comes the news of the discovery of coal in large quantities in the immediate neighborhood of the place, the prospectors having been able to ascertain that the coal fields in question cover an immense area, extending, indeed, to the Zambesi river. It is this discovery, destined to play so great a rôle in the commercial and industrial development of the southern portion of the Dark Continent, that has led Cecil Rhodes to decide to continue the railroad without delay to the Zambesi river, which will then be in uninterrupted railroad communication with the Cape. Apart from their commercial importance the coalfields may contain fossils of great scientific interest.

UNIVERSITY AND EDUCATIONAL NEWS.

A NEW University was opened at Jassy, Roumania, on November 2d, addresses being made by the king and by the queen of Roumania.

By the will of the late Julia Bradford Huntington James a trust fund left by the late Ralph Huntington was released, and it appears that the Massachusetts Institute of Technology and the Boston Museum of Fine Arts will each receive about \$100,000.

THE Root Hall of Science and the Benedict Hall of Languages of Hamilton College were dedicated on November 16th. The buildings are both of stone and each cost about \$30,000. The Hall of Science is the gift of Mr. Elihu Root, of New York, in memory of his parents, his father having been professor of mathematics in Hamilton College. His brother, Oren Root, now holds the same chair.

ARRANGEMENTS are being made to build a science hall at Ripon College, costing \$30,000. Five subscriptions of \$2,500 have already been received.

ROCKFELLER HALL, the new recitation building given to Vassar College by Mr. John D. Rockefeller, at the cost of \$100,000, was dedicated on November 19th. Dr. G. Stanley

Hall, President of Clark University, gave an address on 'A Few Tendencies in College and University Education.'

THE New York *Evening Post* gives the following summary of the attendance at Yale University for the past four years:

	1894.	1895.	1896.	1897.
Graduate ..	138	176	227	260
Academic	1,150	1,199	1,237	1,242
Scientific	662	584	553	542
Art	41	46	53	77
Divinity	116	105	104	102
Medical	100	125	138	134
Law	195	224	213	194

The decrease in the scientific school is due to the loss of some eighty students who attended under the old land-grant fund régime. The freshmen academic class is the smallest of the five classes this year, whereas there is an increase in the scientific school of 16 students over last year's class.

A CONVENTION of American women propose to assemble in Washington on December 14th to decide on ways and means of arousing public sentiment in favor of a national university. They intend, it is said, to collect the \$250,000 necessary for the erection of an administration building, to form the nucleus of the university, and hope to be able to lay the corner stone on February 22, 1899.

THE vacant professorship of pathology at Cambridge University has been filled by the election of Mr. A. A. Kanthack, M.A., of St. John's College, who has acted as deputy for the late Professor Roy. Professor Kanthack, as we learn from the *London Times*, has had a distinguished career at the University of London, where he has taken with honors the degrees of B.A., Bachelor in Surgery, Bachelor in Medicine, was gold medalist, and proceeded to the degree of M.D. in 1892. He has pursued his studies at University College, Liverpool; St. Bartholomew's Hospital, at the Universities of Berlin and Cambridge. His introduction to Cambridge was in 1891, when he was elected to the John Lucas Walter studentship of the value of £200, open to all students for the purpose of conducting original research in pathology. Before that year he had been lecturer in pathology at St. Bartholomew's Hospital, medical

tutor at the Royal Infirmary, Liverpool, and senior demonstrator in pathology at University College, Liverpool. He has devoted many years to original research, and was a member of the Leprosy Commission in India. He is the author of a Manual of Practical Morbid Anatomy and of a Handbook of Practical Bacteriology, and also an extensive and frequent contributor to the journals of physiology and anatomy.

DR. THEODORE DES COUDRES has been promoted to an associate professorship of physics in the University at Göttingen and Dr. Otto Knopf to an associate professorship of astronomy in the University at Jena. Dr. Schmitz-Dumond, of Tarand, has been appointed Director of the Agricultural Experiment Station to be established in Pretoria and Dr. A. Ostroumoff to be professor of zoology in the University of Kasan. Professor Küster, of Göttingen, has been appointed head of the division for analytical, inorganic and physical chemistry in the Chemical Institute of the University at Breslau.

DISCUSSION AND CORRESPONDENCE.

THE MESA ENCANTADA.

TO THE EDITOR OF SCIENCE: I thought that I had said the last word as far as I was concerned upon the subject of the Mesa Encantada, but now that Mr. Hodge's pictures have appeared there is one more word to be said. I never dreamed that he or anybody else would have mistaken the manifestly modern and humanly constructed *cairn* which he figures, and about which so much noise has been made, for the *cairn-like* object of which I spoke. The latter is a very different object, and its location gave it some significance, while the former has none of any importance.

The *cairn* he figures was certainly built by a human being on the 23d of July, 1897, and not by ghosts.

WILLIAM LIBBEY.

PRINCETON, N. J., November 16, 1897.

OBSERVATIONS ON 'THE PRINCIPLE OF IDENTITY.'

THE principle that a thing or relation is identical with itself has given no end of trouble in