SCIENTIFIC JOURNALS AND ARTICLES.

THE May number of the *Botanical Gazette* contains a paper by Dr. A. A. Lawson, of Leland Stanford University, on 'The Relationship of the Nuclear Membrane to the Protoplast,' in which he holds that the typical nucleus of the higher plants is a water cavity, structurally similar to the vacuole, the chromatin being the only permanent constituent, while the nuclear membrane originates by the cytoplasm coming in contact with the karyolymph, just as the tonoplast is formed by the cytoplasm coming in contact with the cell sap. Dr. B. M. Davis concludes his paper on 'Oogenesis in *Saprolegnia*,' with an extended theoretical discussion of the homologies, origin and evolution of the coenogamete, the occurrence of coenogametes among the Ascomycetes, the phylogeny of Phycomycetes and Ascomycetes, and the nucleus of Phycomycetes in ontogeny. An ecological paper by Mr. J. Y. Bergen, now residing in Naples, discusses the thickets of under shrubs known locally as *macchie* of the Neapolitan coast regions. Dr. F. L. Stevens, of the Agricultural College of North Carolina, describes the occurrence of 'Nutations in *Bidens* and Other Genera,' quite similar to the well known nutations of the sunflower. Fernow's 'Economics of Forestry,' Boulger's 'Woods'; 'Postelsia' and other current works are reviewed.

THE July number of the *American Journal of Mathematics* contains the following articles:

'Isothermal-Conjugate Systems of Lines on Surfaces.' By L. P. Eisenhart.

'Some Differential Equations connected with Hypersurfaces.' By G. O. James.

'On the Forms of Sextic Scrolls of Genus Greater than One.' By Virgil Snyder.

'Geometry on the Cuspidal Cubic Cone.' By Frederick C. Ferry.

DISCUSSION AND CORRESPONDENCE.

THE PROPOSED BIOLOGICAL STATION AT THE TORTUGAS.

TO THE EDITOR OF SCIENCE: In the marine biological stations (which carry on, it must be remembered, only a portion of all biological work) two tendencies, opposite at first sight, but really directed toward the same high aims, are discernible. The one tendency is to investigate the phenomena of structure, development and function in the individual; the other is to consider individuals in masses as species, as form-units bearing the imprint of environment, and adapted thereto, and as constituents of faunas. For students of the first sort of marine zoology what is required is one large central laboratory, with an extensive library and the requisite cytological and physiological apparatus, where students of anatomy, embryology and physiology may work together and give mutual aid and stimulus. The needs of the workers on the other side of marine zoology call for several laboratories, widely separated, in diverse environments. These will assist the first sort of laboratory by furnishing particular kinds of material found only in the locality. But their chief work will be to study the fauna, determining the laws of geographic distribution of organisms, the variation of species in different environments and the interaction of organisms. Such laboratories will, of course, be exclusively for research, and should be equipped with everything requisite for the collection, the study alive and the rearing of organisms.

While the Woods Holl Laboratory provides a home for the first-mentioned investigations, and will, with increased resources, be able to provide still better for them in the future, the needs of the second sort of biology are still imperfectly met. On the middle Atlantic coast there is a series of laboratories that are of value for this work, as at Harpswell, Woods Holl, Cold Spring Harbor, Beaufort and Bermuda. And on the Pacific coast we have the Hopkins Laboratory and that of the University of California. The pressing needs are now for one or more stations on the Gulf of Mexico and the Caribbean Sea—those vast mediterranean seas our failure to investigate whose fauna remains to-day one of the great reproaches to American zoology. Every zoologist who is more than half a zoologist will be glad to see this reproach removed.