Naval Consulting Board. These honorary degrees were given upon the recommendation of the Mellon Institute of Industrial Research, an integral part of the University of Pittsburgh.

DURHAM UNIVERSITY has conferred its doctorate of science on Sir E. Rutherford, Sir G. T. Beilby, Professor A. A. Herdman and Professor J. J. Welsh.

SIR J. J. THOMSON has been appointed a member of the advisory council to the committee of the privy council for scientific and industrial research.

DR. GISBERT KAPP is about to resign the professorship of electrical engineering in the University of Birmingham.

PROFESSOR Robert W. Wilson has retired from the chair of astronomy at Harvard University.

THE Royal Society of Arts, London, has awarded its Albert medal for 1919 to Sir Oliver Lodge "in recognition of his work as the pioneer of wireless telegraphy." The medal was instituted in 1864 to reward "distinguished service in promoting arts, manufactures and commerce."

PROFESSOR G. ELLIOT SMITH has been elected president of the Manchester Literary and Philosophic Society.

DR. RAY LYMAN WILBUR, president of Stanford University, who has always taken particular interest in the sociological problems connected with diseases, has been elected president of the California State Conference of Social Agencies.

AT the annual meeting of the Linnean Society on May 24, Dr. A. Smith Woodward, of the British Museum of Natural History, was elected president.

CHARLES W. LENG, secretary of the New York Entomological Society and research associate in the American Museum of Natural History, has been appointed director of the Museum of the Staten Island Institute of Arts and Sciences. Mr. Leng has been interested in the natural history of Staten Island, where he was born and lives, since boyhood. Entomologists and other naturalists, visiting New York City, can reach the museum of the institute by a pleasant half hour's sail across the bay on the Staten Island ferry.

UNIVERSITY AND EDUCATIONAL NEWS

AMONG the gifts announced at the commencement of Harvard University were the following: From the estate of Mrs. Robert D. Evans, $15,687; one half each to the Arnold Arboretum and the Dental School. The James C. Melvin Fund, anonymous $53,750 for tropical medicine. Anonymous gift of $11,250 for the departments of agriculture and landscape architecture. Estate of Mrs. Charles H. Colburn, $97,052, for the study of tuberculosis. Mrs. Winthrop Sargent, $27,500, of which $25,000 goes to the Blue Hill Observatory. From the Nathaniel Canners' Association, $15,000 for studies in public health.

DR. LEROY S. PALMER, assistant professor of dairy chemistry in the college of agriculture of the University of Missouri, has been appointed associate professor of agricultural biochemistry in the college of agriculture, University of Minnesota, and dairy chemist in the Minnesota Agricultural Experiment Station. George E. Holm, Ph.D., Minnesota, 1919, has been appointed assistant professor of agricultural biochemistry and assistant agricultural biochemist in the Experiment Station. He will devote his time almost exclusively to research on the proteins.

A. F. KIDDER has resigned as professor of agronomy in the college of agriculture of the Louisiana State University to accept the position of agronomist and assistant director of the State Agricultural Experiment Station, Baton Rouge.

DR. ALBERT SCHNEIDER, of the pharmaceutical department of the University of California, will go next September to the University of Nebraska as professor of pharmacognosy and director of the experimental medicinal plant garden.

Professor H. H. Chapman returns to the Yale Forest School to assume his duties as Harriman professor of forest management. He has been assistant district forester, in charge of silviculture at Albuquerque for the past two years.

At the recent commencement the following appointments were made in the department of zoology, college of liberal arts, Syracuse University: Dwight E. Minnich, Ph.D. (Harvard, '17), of Oxford, O., instructor in zoology; Harry S. Pizer, M.Sc., of Brooklyn, N. Y., assistant in zoology.

Dr. Frank A. Hartman, of the department of physiology, the University of Toronto, has been appointed head of the department of physiology at the University of Buffalo.

Colonel J. G. Adami, F.R.S., professor of pathology, McGill University, Montreal, has been elected vice-chancellor of the university in succession to Sir Albert Dale.

Professor Grafton Elliot Smith, professor of anatomy in the University of Manchester, has been appointed to the chair of anatomy at University College, London.

DISCUSSION AND CORRESPONDENCE

TECTONIC FORM OF THE CONTINENTS

Our prevailing notion concerning continental mass is strictly geographic in significance. In our definition tectonics finds no place. Relation of sea and land is made causal and essential; whereas it is only accidental and trivial. The outstanding feature is a broad basin with high mountainous rim and a low sea-level interior. This is a statement of the observation of the late Professor J. D. Dana. In its larger, or telluric, aspects this definition is genetically without meaning.

In the final analysis of the major relief features of our globe the hydrosphere is for simplicity's sake left out of account. The effect then is as if the entire face of the earth were a land area. A condition is premised analogous to that of our waterless moon. Genetically the oceans serve only to obscure the tectonic essentials of relief expression.

Recent experimental reproductions, in spheroidal masses, of those broad basinal tracts that correspond to the oceanic depressions of the geoid are accompanied by results having curious significance. They point to the fact that we shall have to modify our basic conceptions concerning all the major deformations of the earth's crust.

Instead of distinguishing between continental elevations and oceanic depressions, a circumstance imposed by an unweening importance attached to the presence of the sea, a notion handed down from time immemorial, the proper discrimination to be made is between the cordilleran ridges of the continental borders and the intervening lowlands, whether above the level of the waters in the continental interiors, or beneath sea-level in the oceanic areas. On this basis the tracts which we are accustomed to designate the oceanic depressions and the sea-level interiors of the continents are arranged in the same taxonomic category. Consideration of any such datum plane as sea-level may be with full propriety entirely neglected. The meridional disposition of the continents thus comes to be readjusted as relatively narrow orographic ridges in place of broad basin-shaped plateaus.

The tectonic consideration of a waterless earth casts a new light upon the schematic form of our globe. In its logical consequences the contractional hypothesis finds expression in such figments of the imagination as the *reseau pentagonal* of Elie de Beaumont, and the tetrahedral globe of Lothian Green. To be sure the form known as the tetrahedron is of all geometric solids the one form which possesses the least volume in comparison with a given surface area, while the sphere contains the greatest bulk within the same surface; yet the collapse of the latter is not necessarily a crystallographic shape as that indicated by the former.

In the present state of our knowledge any schematic form of our earth is largely conjectural. However, it is suggested lately that in the case of a collapsing spheroid the initial tendency towards a faceted form would prob-