

class ever held in the tropical rain-forest and was so successful that other classes will be sent from the University of Pittsburgh in future years. The students spent nearly their entire time at the Tropical Research Station of the New York Zoological Society at Kartabo, British Guiana.

AFTER a four months' leave of absence engaged in investigations on Fanning and Washington Islands, Professor W. B. Herms has returned to active work in the department of entomology and parasitology of the University of California. While on Fanning and Washington Islands certain coconut pests were investigated, mainly the borer, *Diocalandra taitensis* (Guerin), which is responsible for considerable damage on these islands. In addition Professor Herms and his assistant, Mr. Harold Kirby, Jr., fellow in zoology, made a general study of the fauna and flora of both islands, particularly Fanning, which is a typical coral atoll and presents a fertile field for the biologist. Extensive collections of both plants and animals were made for later studies and deposit in the interested museums of the University of California.

THE Goessmann Laboratory of Chemistry at the Massachusetts Agricultural College, in Amherst, will be dedicated on October 3. The speakers will be Dr. C. A. Browne, of the Bureau of Chemistry, U. S. D. A.; Dr. Thorne M. Carpenter, of the Nutrition Laboratory of the Carnegie Institution of Washington, in Cambridge, Mass.; Dr. Frederick Tuckerman, of Amherst, and Dr. J. B. Lindsey, head of the Department of Chemistry.

By the will of the late Mrs. Henrietta O. Littleton, the American Museum of Natural History receives \$100,000.

THE Adelaide correspondent of the London *Times* reports that the congress of the Australasian Association for the Advancement of Science opened on August 25. Large Australian and New Zealand delegations were present, and an important *agenda* occupied the week. Lieutenant-General Sir John Monash, who succeeded Sir George Knibbs, the director of the Institute of Science and Industry, delivered the presidential address on "Power development." He said that Australian investment in electrical transmission had been relatively negligible, and that much research should be done before committing themselves deeply to a more extensive use of present methods. Speaking at the mayor's reception, Sir George Knibbs said that it was well that Australia's spirit of appreciation for science had grown so rapidly, as it was essential to acquire sufficient wealth and population to meet all contingencies. Sir John Monash pleaded for a greater recognition of science by public men, and for larger state grants to scientific institutions.

ACCORDING to the *Journal* of the American Medical Association, the incorporation of the Academy of Medicine of Cleveland has been completed and the secretary of state has issued a charter. The change necessitated the election of a board of directors or trustees by the members who shall hold office for a stated period of years. The new board of directors comprises Drs. Harold Feil, Samuel J. Webster, Edward P. Monaghan, L. Morris, Clyde L. Cummer, Jacob E. Tuckerman, Harold O. Ruh, Frederick J. Wood, Harry V. Paryzek, Lawrence A. Pomeroy, Arthur J. Skeel, Frank S. Gibson, John D. Osmond, Richard Dexter, Harry D. Piercy. The new officers are: president, Jacob E. Tuckerman; vice-president, Edward P. Monaghan; secretary-treasurer, H. V. Paryzek.

THE first survey to be made by the proposed naval research expedition would be devoted to the Gulf of Mexico-Caribbean region under recommendations formulated on August 28, at a meeting of the executive committee of the interdepartmental conference on oceanography, held at the Navy Department. The tentative program lists as the next step "neighboring parts of the North Atlantic," then south through the Panama Canal into the Pacific to the Galapagos Islands. Subsequent work would be carried on in the waters of the North Pacific.

UNIVERSITY AND EDUCATIONAL NOTES

ERNEST GATES, of Yorkshire, England, has promised to provide the sum necessary to complete the endowment of a School of Pathology for Cambridge University. The trustees of the Rockefeller Foundation recently offered the University of Cambridge to provide £100,000 to build a school of pathology, together with the sum of £33,000 towards its endowment, provided the university raised an additional £33,000.

THE University of Paris has accepted a donation of five million francs from M. Biermans and Mme. Laporte for the construction of a dormitory for students from Belgium, Luxembourg and Limbourg.

W. C. NICHOL, lieutenant-governor of British Columbia, has given \$18,000 to the University of British Columbia to provide three scholarships of \$1,200 each, tenable for five years at French universities, with the object of promoting a better understanding between the British and French races.

DR. MARION TALBOT, professor of household administration and dean of women at the University of Chicago, has given to the university \$15,000 to be used as an endowment for the advancement of the education of women.

THE following promotions have been made at the University of Chicago: Dr. William Duncan Mac-Millan to professor of astronomy; Dr. Adolf C. Noé to associate professor of paleobotany, and Dr. Marion H. Loeb to assistant professor of anatomy.

DR. GEORGE R. BANCROFT, associate professor of physiological chemistry, has been promoted to the rank of full professor and head of the department of physiological chemistry in the School of Medicine of West Virginia University.

DR. FRANK E. RICE, assistant professor of chemistry at Cornell University, has been appointed professor of biochemistry at the North Carolina State College.

THE following additions to the staff of the department of physics of the University of Pittsburgh are announced: professor and head of the department, L. P. Sieg, of the University of Iowa; assistant professors, Richard Hamer, of the University of Wisconsin, and W. St. Peter, of the University of Michigan; instructors, Theodore Hunter, of the University of Iowa; M. H. Trytten, of Luther College, and J. J. Weigle, of the Westinghouse Research Laboratory.

ADJUNCT PROFESSOR P. M. BATCHELDER, of the University of Texas, has been appointed acting assistant professor of mathematics at Brown University for the academic year 1924-1925.

DR. OLIVER H. GAEBLER has been appointed associate in biochemistry in the department of chemistry in the State University of Iowa, and Dr. Earl R. Norris, instructor in the same department.

DR. P. B. SIVICKIS, professor and acting head of the department of zoology, University of the Philippines, was recently appointed permanent head of the department in place of Professor A. L. Day, retired.

DR. FRED M. SMITH, Chicago, has been appointed professor of internal medicine and head of the department of theory and practice of medicine at the State University of Iowa College of Medicine to succeed Dr. Campbell P. Howard, who resigned to accept the professorship of medicine at McGill University Faculty of Medicine, Montreal.

DR. ARTHUR W. M. ELLIS has been appointed to the university chair of medicine at the London Hospital Medical College. Dr. Ellis, during 1909-1910, was resident pathologist of the Lakeside Hospital, Cleveland, and demonstrator of pathology in the Western Reserve University School of Medicine.

DR. S. BRODETSKY, teacher in applied mathematics, at the University of Leeds, has been appointed professor of mathematics.

DISCUSSION AND CORRESPONDENCE

A MATHEMATICAL BLACK SHEEP

THE most noted mathematical black sheep is doubtless H. Cardan (1501-1576) whose name is usually associated with our common formula for the solution of the general cubic equation. In particular, he is often charged with having obtained this formula from Tartaglia under a solemn promise of secrecy and with having then published it in his noted "*Ars Magna*" (1545), in violation of this promise and without giving due credit to Tartaglia. Fortunately, some of the more recent mathematical historians have come to the conclusion that his actions in this connection are not as reprehensible as earlier writers had supposed. The formula which he obtained from Tartaglia may have been due to an earlier Italian writer named Ferro, and, in fact, this formula is called *Ferro's formula* in one of our best recent histories of elementary mathematics, Tropfke, "*Geschichte der Elementar-Mathematik*," Volume 3, 1922, page 73, and elsewhere.

In an article entitled "*Psicologia dei matematici*," published in a recent number of *Scientia*, Volume 35, 1924, page 10, the noted Italian mathematical historian, G. Loria, states that the autobiography of H. Cardan entitled "*De vita propria*" is of little value as a historical document in view of the fact that its author wisely abstains from replying to the charges made against him. Since the common biographical sketches are largely based on this autobiography many of the charges contained in these sketches have not been established. It seems very fortunate that the blackest sheep among the eminent mathematicians is thus slowly changing color for the better. This will be especially interesting to those who believe that the devotion to mathematical study has a tendency to nobler thinking and the improvement of morals.

In the article to which we referred, G. Loria emphasizes the fact that most of the biographical accounts of mathematicians, especially those relating to the thinkers of antiquity, have little historical value since they are based largely on anecdotes and grandiloquent praises of doubtful authority. This is of considerable interest in view of the fact that most of our general histories of mathematics devote much space to such biographies. From the fact that it is difficult to purge the literature from such obvious biographical errors as the one relating to the supposed welcome given by Regiomontanus to Copernicus, while the latter was in Rome (*SCIENCE*, Vol. 60, p. 82), it is clear that it is almost hopeless to eliminate the less obvious ones, especially when they relate to the less prominent scientists. Too many mathematical historians have accepted statements which appear plausible and can not be disproved at the present time.