the Geological Survey of Minnesota; Wallace Walter Atwood, S.B., '97, Ph.D., 1903, professor of physiography, Harvard University; Edwin Bayer Branson, Ph.D., 1905, professor of geology, the University of Missouri; Ermine Cowles Case, Ph.D., 1896, professor of historical geology and paleontology, the University of Michigan; George Frederick Kay, Ph.D., '14, professor of economic geology and petrology of the State University of Iowa, director of the Geological Survey of Iowa. The exercises were held in the lecture room of the new hall, and the entire building, with its equipment, was then placed on exhibition.

A NEW site for the Fuertes Observatory of Cornell University has been approved by the committee on buildings and grounds, on the recommendation of a subcommittee which had considered the matter in consultation with Dean Haskell of the College of Civil Engineering. The observatory was torn down last fall to make room for the new drill hall. It is to be erected on the summit of a knoll just north of Beebe Lake, near the east end of the lake. The site is on a part of the Kline farm which was purchased by the university a year or two ago. It is just 900 feet above sea level.

AT a meeting of the Yale corporation on March 15, Dr. John Zeleny, professor of physics at the University of Minnesota, was appointed professor in the Sheffield School to succeed Professor Charles S. Hastings. Dr. J. M. Slemons, professor of obstetrics and gynecology in the University of California, was appointed to the corresponding chair in the medical school. Dr. Hiram Bingham was promoted to be professor of Latin-American history; Dr. T. S. Taylor, now instructor, was made assistant professor of physics in the college; Dr. A. F. Holding, of the Cornell Medical School, was made assistant professor of radiography in the medical school; Dr. A. M. Bateman, of Queen's College, was made instructor in biology, and Mr. H. L. Bruce, of the University of California, instructor in engineering.

DR. HERBERT M. EVANS, associate professor of anatomy in the Johns Hopkins University and research associate in the department of embryology of the Carnegie Institution of Washington, has accepted a call to the professorship in anatomy and directorship of the department of anatomy of the University of California. Dr. Evans will assume his new duties on July first.

DR. W. V. BINGHAM, assistant professor of psychology and education at Dartmouth College and for the past three years director of the summer session, has accepted appointment as professor of psychology in the Carnegie Institute of Technology at Pittsburgh. Dr. Bingham will not leave Hanover until September, after the summer session.

AMONG new promotions at the University of Chicago are the following: To a professorship: Henry Chandler Cowles, of the department of botany, Charles Joseph Chamberlain, of the department of botany; Otis William Caldwell, of the college of education (botany). To an assistant professorship: J. Harlen Bretz, of the department of geology; George William Bartelmez, of the department of anatomy; Elbert Clark, of the department of anatomy. To an instructorship: Harold S. Adams, of the department of physiology.

DR. CHARLES KENNETH TINKLER has been appointed to the readership in chemistry tenable in the home science department of King's College for Women, London. He has been a research student of the University of Edinburgh, and since 1904 lecturer and demonstrator in chemistry in the University of Birmingham.

DISCUSSION AND CORRESPONDENCE

CONRAD RÖNTGEN

THE twenty-seventh of March marks the seventieth birthday of Conrad Röntgen, an event which was to have been jointly commemorated by physicists of all nationalities, especially English, French and German, the three which have contributed most markedly to the development of the new era in physics—an era which may with some reason be dated from the announcement in January, 1896, of the discovery of X-rays.

But when last summer the spirit of this new world which has been created by modern science, the spirit of reason, of cooperation, or internationalism, was submerged in the wave of blind nationalism which swept the world back a thousand years towards barbarism, when the crowning glory of science, the objective, impartial search for truth was forgotten, and prejudice and hate alone dictated the words and acts of men, then it was felt necessary to abandon the plans for the Röntgen celebration.

But here in America where, let us hope, the spirit and the method of science still find some advocates, it is fitting that on the twenty-seventh of March we bring honor and appreciation to the seventy-year-old author of one of the world's greatest discoveries—Conrad Röntgen.

R. A. MILLIKAN

UNIVERSITY OF CHICAGO,
March 18, 1915

THE CONTENTS OF A SHARK'S STOMACH

TO THE EDITOR OF SCIENCE: I have received from Mr. W. F. Cameron, of Zamboanga, P. I., a Stanford engineer, a photograph of a rare shark, *Rhinodon typicus,* a specimen about twenty feet long, taken on the island of Cebu. A notable feature about this shark, which has a very big mouth and small teeth, is that it had in its stomach 7 leggings, 47 buttons, 3 leather belts and 9 shoes. He had probably captured the cast-off garments of some company, otherwise the question arises—What became of the odd legging and the odd shoe?

DAVID STARR JORDAN
LELAND STANFORD JUNIOR UNIVERSITY

THE SCALED AMPHIBIA OF THE COAL MEASURES

THE preservation of scales among true Amphibia has been well known for many years, and their presence has been commented on by Huxley, Cope, Dawson and others. Recently the question of the crossopterygian ancestry of the Amphibia has received considerable support through the researches of Gregory, Watson, Broom and Williston, so that it will be of interest to state here the conditions of the scales among the few species of Amphibia from the Coal Measures which show these structures. Scales are known on several genera of diverse relationship and seem to have been present independent of any common ancestry. These structures, presently to be described, are true scales, and are not to be confused with osseous scutes and ventral scutellæ. These latter structures will be dealt with more fully in another place.

Small scales hexagonal in form have been observed in a branchiosaurian genus, *Micrerpeton,* from North America, though this discovery has not so far been confirmed on additional material, although known to occur in another genus, *Eumicrerpeton.* From the Coal Measures of Ohio come two scaled microsaurian genera, one of which is *Cercariomorphus,* described by Cope, though never figured. The scales in this genus do not show many of the fish characteristics, though they resemble remotely some of the more aberrant forms. The scales are dermal tubercles inserted in the skin, without any definite plan of imbrication, such as is common among the fishes, although the scales have a definite arrangement simulating the fishes. The pattern shows a remote resemblance to some of the early ganoids. They are, moreover, true scales, and as such possibly indicate one more link added to the already full chain of facts which ally the Amphibia and the fishes.

The other genus from Ohio possessing scales is imperfectly known, but was tentatively allied, some years ago, to the genus *Ichthyerpeton,* described many years ago by Huxley from the Coal Measures of Ireland. There is no assurance that the forms are so closely related. They both possess scales of a similar pattern and have an identical form of vertebra. The scales in the only known American species are so badly scattered that nothing can be said of their arrangement. Dawson's work on the scaled Amphibia of the Coal Measures of Nova Scotia is well known. He has figured and described very completely the scales of *Hylonomus.* They bear a great resemblance to the scales of *Cercariomorphus.*

The question now before us is whether the