the telephone system in Japan, he received there the Order of the Rising Sun and of the Sacred Treasure. For his war services, he was given the formal thanks of the French Army, the cross of Officer of the Legion of Honor and the Distinguished Service Medal from the United States government.

RUSSELL HENRY CHITTENDEN: Dr. Chittenden was born in New Haven, and his active career has been identified with the Sheffield Scientific School, a fortunate thing for that institution. He took his bachelor of philosophy degree there in 1875. After taking his doctorate in the Graduate School, he studied at Heidelberg, and has received honorary degrees from the University of Toronto, University of Pennsylvania, Washington University, and the University of Birmingham in England. His researches and publications in the field of physiological chemistry have made him one of the world's foremost authorities; and during the war he represented America on the Inter-Allied Scientific Food Commission, which held sessions in London, Paris and Rome. In 1898 he was appointed director of the Sheffield Scientific School, where he immediately showed executive ability as remarkable as his powers of research. Under his leadership the Sheffield Scientific School became a liberal college, one of the best in America, where the study of the humanities had no stronger friend than the great scientist who directed the institution. Its growth in numbers and in buildings and in resources was phenomenal; leading authorities were numerous on the faculty, Dr. Chittenden's devotion to the avocation of fishing enabling him to be a good fisher of men. He retires from office this year in the plenitude of his powers, with the respect of the best scholars in Europe and America, with the admiration of his colleagues, and with the devoted affection of thousands of students who have been graduated under his administration.

## SCIENTIFIC NOTES AND NEWS

Professor T. H. Morgan, of Columbia University, was on June 1 formally received into the Royal Society and delivered the Croonian lecture. On the following day he and Dr. Sturtevant addressed the Genetical Society at its annual meeting, held at the John Innes Horticultural Institution. On June 8, Professor Morgan lectured at the University of Edinburgh and its degree of doctor of laws was presented to him.

Dr. George Ellery Hale, director of the Mount Wilson Observatory and honorary chairman of the National Research Council, has been elected the American representative on the international committee which, under the auspices of the League of Nations, is to study and suggest methods of intellectual cooperation throughout the world.

At the commencement exercises of Princeton University, the doctorate of science was conferred on Dr. Arthur Gordon Webster, professor of physics at Clark University; Dr. Henry Crew, professor of physics at Northwestern University, and Dr. John Campbell Merriam, of the Carnegie Institution of Washington. The doctorate of laws was conferred on Dr. Livingston Farrand, president of Cornell University.

Dr. Vernon Kellogg, of the National Research Council, was given the honorary degree of doctor of science by Oberlin College on June 21.

The honorary degree of doctor of laws was conferred on the secretary of agriculture, Henry C. Wallace, by the Iowa State College of Agriculture and Mechanics Arts at the commencement this month. Secretary Wallace is an alumnus of the institution and gave the commencement address.

Dr. Harold L. Amoss, associate member of the Rockefeller Institute for Medical Research, New York, on June 7 received the degree of doctor of science from George Washington University, Washington, D. C. The scientific staff of the Rockefeller Institute on June 12 gave a dinner in honor of Dr. Amoss, who has accepted the appointment of associate professor of medicine at the Johns Hopkins Medical School, Baltimore.

Among those knighted on the occasion of King George's birthday were Professor William Maddock Bayliss, professor of general physiology in University College, London; Professor Frederick William Keeble, Sherardian professor of botany at Oxford University, and Dr. Edward John Russell, director of the Rothamsted Experiment Station.

A COMPLIMENTARY dinner was given to Dr.

Henry Head, F.R.S., on May 26 in recognition of his eminent services to neurology as editor of *Brain* for seventeen years. Sir Charles Sherrington, president of the Royal Society, was in the chair and addresses were made by Sir David Ferrier and Dr. Head. Dr. Gordon Holmes has been made editor of the journal.

Dr. Leon C. Havens, associate in immunology in the Johns Hopkins School of Hygiene and Public Health, has been appointed director of laboratories of the State Board of Health at Montgomery, Alabama.

H. A. Noves has severed his connection with the Mellon Institute of Industrial Research of the University of Pittsburgh to accept the position of research chemist for the Michigan Department of Agriculture.

J. A. McClintock, plant physiologist at the Georgia Experiment Station, has resigned, effective July 1, to accept the position of associate plant pathologist at the University of Tennessee Agricultural Experiment Station.

Dr. Charles D. Walcott, secretary of the Smithsonian Institution, has left for the Canadian Rockies to continue geological explorations.

PROFESSOR J. G. NEEDHAM, head of the department of biology and entomology in Cornell University, is to exchange for the college year 1922-3 with Dr. William A. Hilton, of the department of zoology, Pomona College, Claremont, California.

Dr. G. Canby Robinson, acting professor of medicine at the Johns Hopkins University during the current year, will spend the summer in study at the University of Copenhagen before assuming his duties as professor of medicine at Vanderbilt University.

Dr. John Rice Miner, associate in the department of biometry and vital statistics of the School of Hygiene, the Johns Hopkins University, has been granted leave of absence for the next academic year and will spend the time in study and travel abroad. During Dr. Miner's absence, his position in the department will be filled by Dr. Flora D. Sutton, who has the degree of doctor of philosophy in mathe-

matics from Johns Hopkins University, and has for some time been connected with the department of biometry and vital statistics.

DR. J. W. TURRENTINE, formerly director of the Experimental Kelp-Potash Plant of the U. S. Department of Agriculture at Summerland, California, has obtained furlough from the department for a period of six months to act as consulting chemist for the U. S. Kelp Products Corporation, the newly organized concern which has purchased the government's plant and is now proceeding with the manufacture of kelp products.

PROFESSOR FRANK THILLY, professor of philosophy at Cornell University left on June 8 for Houston, Texas, to give the commencement address at the Rice Institute. From Houston he plans to go to Los Angeles to give a course of lectures before the Summer School of the Southern Division of the University of California.

On June 6, at the Denver Public Library, Dr. C. P. Gillette, director of the Colorado Agricultural Experiment Station, delivered a lecture on "Heredity and the improvement of man," under the auspices of the Genetic Foundation of Colorado.

PROFESSOR EUGENE C. BINGHAM gave an illustrated lecture in Philadelphia on the evening of June 15 before the Philadelphia Section of the American Chemical Society on the subject of "Fluidity and plasticity."

A MENDEL festival was organized at Vienna by the Zoologic-Botanical Society to commemorate the hundredth anniversary of the birth of Gregor Johan Mendel on June 7.

Dr. WILLIAM CARRUTHERS, from 1859 to 1895 assistant and keeper of botany in the British Museum, known for his work in paleobotany, died on June 2, at the age of ninety-two years.

Professor William Gowland, emeritus professor of metallurgy in the Royal School of Mines, London, has died at the age of seventynine years.

The deaths are also announced of Professor C. V. Zanetti, director of the Institute of Pharmacological Chemistry of the University of

Parma, and of Professor Jenö Holzwarth, who held the chair of radiology in the University of Budapesth.

A CABLEGRAM from Prague announces that Professor Edmund Weil has died from typhus contracted by infection in his laboratory at Lemberg, where he was working at the invitation of the Polish government.

PREPARATIONS for the fourth Boston meeting of the American Association for the Advencement of Science, to be held from December 26 to 30, by invitation of the Massachusetts Institute of Techonology and Harvard University, are progressing in a very satisfactory way. The privilege of reduced railway rates for those attending the meeting has already been granted by the New England Passenger Association, the Trunk Line Association, the Central Passenger Association, the Southeastern Passenger Association, and the Eastern Canadian Passenger Association. This privilege is based on the certificate plan, and the cost of the round trip to Boston will be one and one half times the regular one-way tariff. The region thus far included extends about to the Mississippi River.

SIGMA DELTA EPSILON, graduate women's scientific fraternity, founded at Cornell University, May, 1921, recently became incorporated and installed Beta Chapter at the University of Wisconsin on April 25. The national officers, who serve until the convention in Boston in December at the time of the meetings of the American Association for the Advancement of Science are: Christianna Smith, Cornell, president; Elizabeth Smith, Wisconsin, first vice-president; Helen M. Johanns, Wisconsin, second vice-president; Evelyn Fernald, Cornell, secretary; Helen Brewster Owens, Cornell, treasurer.

Dr. Vernon Kellogg writes: "The industry and commerce committee of the Polish parliament has drafted a bill providing for the adoption of the metric system of weights and measures for the whole of reunited Poland. The bill provides that beginning January 1, 1923, all retail trade in Poland will be conducted on this basis, and that on and after January 1, 1924, all trade, whether retail or wholesale. At present the metric system is in use in the parts of Poland which were formerly under German

and Austrian rule, but the Russian system, with its versts and poods, is still being used in former Russian Poland.

Following an unconditional gift of its large collection of books and documents on public health, medical and related subjects to the Surgeon General's Library of Washington, the Prudential Life Insurance Company of America has made a similar, though less extensive, presentation of its books and documents on forestry and agriculture to the library of Yale University.

Professor Arnold Pick, the well-known neurologist at Prague, is about to retire from teaching and wants to sell his library. It contains some 3,000 works on psychiatry, neurology and psychology, besides 7,000 reprints and theses.

THE British Medical Journal states that strong protests have been made by the medical profession in France, and especially by the Syndicat général des médecins français électro-radiologistes, against the appointment by the prefect of the department of the Seine of a radiographer who is not a qualified medical practitioner to be director of the radiological laboratory of the Salpêtrière Hospital in succession to the late Dr. Charles Infroit.

Mr. F. H. RIDDLE, president of the American Ceramic Society, writes: "Allow me to submit a correction to the item relating to the annual meeting of the American Ceramic Society which appeared in Science on June 2. As it stands, it is made to appear that in the investigation on special porcelains adapted for spark plugs, etc., conducted by the Bureau of Standards, the work of Mr. A. V. Bleininger was of a secondary and minor character. Permit me to say that his contribution was vital and important and that the final conclusions reached were the result of close cooperation."

A REFLECTING telescope with a 61-inch mirror is to be made for Ohio Wesleyan University. It will be housed in the Perkins Observatory, of which Professor Clifford Crump is director. There are only two reflecting telescopes in the world which will exceed this new instrument in size, according to officials of the Warner and Swasey Company, which has contracted to make the installation. These are the 100-

inch reflector at the Mount Wilson Observatory in California and the 72-inch one at Victoria, British Columbia. The \$250,000 for its construction was given by Professor M. H. Perkins, for twenty-five years an instructor in mathematics at Ohio Wesleyan, who has made many other contributions for the upkeep and maintenance of the observatory. A feature of the telescope is that it will be devoted primarily for the use of the students in the university and only secondarily for research. This is the first of the large instruments to be so used. Three years will be required to complete the installation.

A Beta Chapter of Sigma Delta Epsilon, a women's honorary scientific society, was recently installed at the University of Wisconsin. The society has a membership of 33 women who are doing advanced work in science in the University of Wisconsin, the federal government and the state scientific institutions in The officers are Dr. Eloise Gerry, Madison. U. S. Forest Products Laboratory, president; Miss Marion E. Phelps, department of physics. vice-president and chairman of the membership committee; Miss Helen Johann, cereal investigations U. S. Department of Agriculture, secretary; Dr. Elizabeth A. Smith, department of zoology, treasurer; and Miss Nevada Evans, department of plant pathology, chairman of the program committee. The meetings are held twice a month and give opportunities for presentation and informal discussion of the results of research as well as social intercourse. The society is non-secret. Its name means united in friendship through science. The officerselect for the coming year are Professor Elizabeth A. Smith, zoology, president; Professor Helen Parsons, food chemistry, vice-president; Miss Helen Johann, cereal investigations, secretary; Miss Ruth Chase, zoology, treasurer; and Miss Emma Fiske, botany, chairman of the program committee.

The Biological Station of the University of North Dakota at Devil's Lake is planning to continue this season the work which it has been conducting for a number of years past, which includes experiments on the influence of solutions of different salts of varying concentrations upon fishes, in the attempt to ascertain

the cause of death of fish in such solutions. It is also continuing the biological survey of the state, upon which considerable progress has already been made. The work this year will be centered, chiefly on the fishes, reptiles and Amphibia. Reports have already been published, or are in press, dealing with a number of groups, including the birds, mollusks, Protozoa, locusts, and bugs (Hemiptera). This latter work is in charge of Miss Crystal Thompson, of the Amherst College Museum, and is in cooperation with the Museum of Zoology at Ann Arbor. The environment of Devil's Lake, with numerous ponds differing markedly in their physical and chemical characteristics. marshes, woodland, and cultivated land, contains a rich fauna for ecological studies, especially on aquatic life.

We learn from *Nature* that the Strangers' Hall, Norwich, an old city merchant's house, with groined undercroft, fifteenth century banqueting hall, and other paneled rooms of later date, has been offered by its owner, Mr. Leonard G. Bolingbroke, to the corporation of Norwich for the purpose of an English Folk and Historical Museum, in conjunction with the Norwich Castle Museum. Mr. Bolingbroke has also offered his collection of old domestic appliances and other "bygones" illustrative of the various phases of a middle-class Englishman's home during the last four or five centuries. which will find a fitting environment in the various rooms of the house. While the aim of the museum will be historical rather than scientific, there will be found many exhibits of interest to students of early history and development of such subjects as the production of light and fire, domestic cookery, and other kindred objects.

The Royal Geographical Journal reports that an expedition lately left Copenhagen for the Dutch East Indies with the object of taking preliminary steps towards the establishment of a Tropical Station for Biological Research in that region. It is headed by Dr. T. Mortensen, of the Copenhagen Zoological Museum, and the botanist is Hjalmar Jensen. The project was set on foot some years ago and has been brought to a head through the labors of a Scandinavian Society formed for the pur-

pose. The present expedition has been rendered possible by a grant from the "Raskorsted Fund." The probable site of the station will be in the Ké islands, previous research having shown that there is an unusual abundance of animal life in the waters to the west of the group. What is really a deep-water fauna is here found at comparatively small depths—200-300 meters—making it easy to collect rare deep-water species. It is possible that Dutch cooperation may be secured, and in any case the intention is to give an international character to the station.

## UNIVERSITY AND EDUCATIONAL NOTES

MRS. DOROTHY WHITNEY STRAIGHT will give to Cornell University a million-dollar building to be used as a center for the social and recreational life of the students.

At the commencement of Princeton University a gift of \$100,000 was announced from James H. Lockhart, of Pittsburgh, for the endowment of scholarships in memory of his father, Charles Lockhart.

HEARST HALL and Hearst Hall Annex were destroyed and the Pathology Building of the University of California was damaged on June 21 in a fire with estimated loss of \$100,000. Hearst Hall, a large frame structure, was the gift to the university women of Mrs. Phoebe Apperson Hearst. Mr. William Randolph Hearst has undertaken to rebuild Hearst Hall and its accessory buildings in fireproof material.

Dr. Haven Emerson has been appointed professor of public health and administration in the College of Physicians and Surgeons, Columbia University, and given the task of working out a plan for the organization of the Institute of Public Health established by the bequest of the late Joseph A. DeLamar.

Mr. Sigfred Hauge and Mr. Robert Evans have been appointed instructors in the division of agricultural biochemistry of the University of Minnesota. Dr. Paul F. Sharp, instructor in the division, has been appointed assistant chemist of the Montana Agricultural Experiment Station.

PROFESSOR S. I. KORNHAUSER, of Denison

University, has been appointed head of the department of anatomy of the School of Medicine of the University of Louisville, in the place left vacant by Dr. Chas. Brookover. During the summer Dr. Kornhauser will be biological assistant to Colonel William G. Atwood, director for the committee on marine piling investigations of the National Research Council.

Dr. Alfred Povah, formerly associate professor of plant pathology and associate plant pathologist at Alabama Polytechnic Institute, has been appointed assistant professor of botany at Northwestern University.

Dr. A. O. Weese, professor of biology at the University of New Mexico for the past ten years, has accepted the professorship of biology at James Millikin University, Decatur, Illinois, recently made vacant by the death of Dr. A. A. Tyler. Professor Weese has spent the past year at the University of Illinois.

## DISCUSSION AND CORRESPOND-ENCE

## THE NEW CATASTROPHISM AND ITS DEFENDER

REFERENCE was made in my contribution to Science for February 17 to Professor Price, alleged geologist, upon whose scientific vagaries a reactionary theology relies much in its recent attack on evolution—the result of a recrudescence of the old conflict which such a theology has ever waged against the progress of science.

George McCready Price, who since 1906 has held positions as professor of geology, College of Medical Evangelists, Loma Linda, California, professor of English literature, Fernando Academy, California, and professor of chemistry and physics, Lodi Academy, California, is evidently in the religious denomination (Seventh Day Adventist) to which he belongs held to be a man of considerable versatility.

The writings by which he is best known are two books, "Fundamentals of Geology" (1913), and "Q. E. D., or New Lights on the Doctrine of Creation" (1917), and numerous articles in the religious press—chiefly the Philadelphia Sunday School Times.

The distinctive ideas for which he stands in