

liam, who was afterwards also to contribute to the astronomical fame of the family. An old thatched barn, which Herschel used as a workshop, was visited next, and the party afterwards went through Upton Court, where his wife's first husband, John Pitt, lived. It belongs to Lord Harewood, and has been for some time untenanted. In the afternoon the visitors were welcomed to Observatory House by Miss Herschel. There they saw many interesting personal relics—some in the house itself, some in an adjoining cottage which has been made into a little museum, and some in the garden. Against the back wall of the garden, embowered in foliage, rests a section of Herschel's great telescope, 10 feet or 12 feet in length. A circular ridge on the lawn marks the place where the telescope formerly stood. In the hall of the house is one of two mirrors which were cast for the big telescope. The mirror and tube of the smaller telescope which Sir John Herschel took to the Cape to survey the heavens of the southern hemisphere were also shown.

At luncheon, which was served at the Old Crown Hotel, at one time part of the property of Sir William Herschel, the Reverend Sir John Herschel said that the great work of Sir William Herschel at Slough was his investigation of the structure of the heavens. He put forward the view that the whole visible universe was like a couple of soup-plates put face to face. That theory, he believed, still held the field. Another great discovery was that of nebulae. Herschel at first thought they could be resolved into separate stars, but afterwards came to the conclusion that in certain cases these dull, fuzzy things were a shining fluid. That some of the nebulae were resolvable into stars was proved later by Lord Rosse, and the hypothesis of the shining fluid was confirmed many years later by Huggins. Sir William Herschel was much before his age in his speculations. Though they fell into discredit for a time, he had since come into his own again and had been found to have made very few mistakes.

Sir Frank Dyson said he thought what Sir J. Herschel had said about Sir William Herschel was true. He was undoubtedly a very great man. In addition to the wish to fathom the heavens, he had the great mechanical and en-

gineering skill which enabled him to make his telescopes. He had also the prodigious enthusiasm and energy needed to carry out his big surveys.

Dr. Dreyer added further instances of Sir William Herschel's clear insight. About the year 1785 he announced that the sun was traveling through space towards the constellation Hercules. Though the evidence was perhaps slender at the time, and nobody, he believed, took serious notice of the matter, the discovery was undoubted. He also first suggested the "grindstone theory" of the Milky Way—that there was a great layer of stars between two parallel planes.

THE INTERNATIONAL GEOLOGICAL CONGRESS

THE twelfth International Geological Congress was held in Belgium during the month of August with a large and influential delegation of some 500 geologists from all parts of the world, except former enemy countries. A number of geological excursions were organized covering the most interesting sections of Belgium, to which a large number subscribed. France was well represented by men like de Margerie, Lacroix, Gentil, Kilian, Bigot Lory, Haug, Cayeux, Fallot, Yung and others; while Switzerland had sent Lugeon and Argand, both masters of tectonics. Especially interesting was Argand's lecture on "The Tectonics of Asia," illustrated with a tectonic map of the Eurasian continent which no doubt marks an epoch in structural geology. This synthetic and clever graph of the Eurasian continent contained more than 3,500 geological sections, transferred in tectonic form and colors on the map which served to illustrate the opening public lecture of the congress.

Spain was well represented, and Director Cesar Rubio, of the Instituto Geologica de España, with a goodly contingent of geologists from the Iberian Peninsula, took part in the congress. The invitation given by Spain was accepted, so that the fourteenth International Congress of Geology is to be called for 1925 in Spain.

A large number of United States geologists attended the congress. Dr. David White, chief geologist of the U. S. Geological Survey, was

there, representing the United States government and survey. Dr. R. A. F. Penrose, Jr., of Philadelphia, was also an official representative of the United States government, whilst Professor N. H. Winchell, ex-president of the American Institute of Mining and Metallurgical Engineers, was also an official delegate. Professors S. B. Matthews and W. H. Emons, Dr. Quirke, Professor G. F. Cleland, E. O. Ulrich and many others took part in the meetings.

Dr. Frank Darwin Adams, of McGill University, president of the twelfth congress held in 1913 in Canada; Dr. Charles Causell, of Ottawa, deputy minister of mines; Dr. Reginald W. Brock, of Vancouver; Professors Coleman, T. L. Walker and W. A. Parker, of the University of Toronto; Professor E. M. Baker, of Queen's University, and the writer represented the Royal Society of Canada.

Great Britain, Italy, Poland, Czecho-Slovakia, Roumania, Denmark, Mexico, Argentina, Brazil, New Zealand, Australia, West Africa, Egypt and India were represented.

The tectonics of Africa formed one of the principal topics and what was formerly styled the dark continent is now supplying some of the brightest pages in our knowledge of the crust of the earth.

The consolidation or drafting of a constitution for the International Geological Congress occupied the attention of a number of European and American geologists, and, finally, at the last general meeting the statutes as discussed in council and approved by it were adopted with one dissenting vote.

H. M. A.

SCIENTIFIC NOTES AND NEWS

DR. ALEXANDER SMITH, formerly professor of chemistry at the University of Chicago and Columbia University, has died at Edinburgh at the age of fifty-six years.

PRESIDENT LIVINGSTON FARRAND, of Cornell University, has accepted an invitation to deliver an address at a joint meeting of the American Association for the Advancement of Science and the Society of the Sigma Xi to be held at the Boston convocation week meeting.

DR. HIRAM BINGHAM, professor of Latin-American history at Yale University, has been nominated by the Republican state convention of Connecticut for the office of lieutenant governor.

A CABLE message to the American Society of Mechanical Engineers announces the election by the engineers of Holland to honorary membership in the Koninklijk Instituut van Ingenieurs of Mr. Calvin W. Rice, secretary of the society. Mr. Rice is now in Rio de Janeiro as the representative of American engineering societies at the International Engineering Congress.

MR. JESSE MERRICK SMITH, of New York, has been elected by the American Society of Mechanical Engineers delegate to the seventy-fifth anniversary of the Dutch Engineering Institute, with Mr. Hosea Webster, of New York, as alternate.

ON the occasion of the annual dinner of the Royal Society of Medicine, presided over by Sir John Bland-Sutton, the Jenner Memorial Medal was presented to Dr. John C. McVail.

PROFESSOR RAFAELE ISSEL has been appointed director of the biological work of the Italian government on the Adriatic. This work will now be concentrated at Rovigno.

DR. ERNEST B. FORBES has been appointed director of the Institute of Animal Nutrition at Pennsylvania State College to succeed the late Dr. Henry Prentiss Armsby. Dr. Forbes is specialist in nutrition in the Institution of American Meat Packers of Chicago, and was for thirteen years chief of the department of nutrition of the Ohio State Agricultural Experiment Station.

LILLIAN SEGAL KOPELOFF has been appointed in charge of the newly established research department of biological chemistry at the Psychiatric Institute of the New York State Hospitals, Ward's Island, New York City.

MR. H. K. CUMMINGS has resigned an instructorship in mathematics at Brown University to accept a position in the Bureau of Standards at Washington.

PROFESSOR L. WINFIELD WEBB, professor of psychology, has been named by President