were loaned to the bureau by the War Department as an emergency measure when the bureau was created. The War Department has suggested that it now needs these buildings and it is felt the bureau can not retain possession much longer. The buildings are very old and are entirely unsuited to the needs of the Bureau of Mines work. It is said that the investigations have been seriously handicapped by the inadequacy of the structures now in use.

THE FUR-SEAL COMMISSION

THE President of the United States and the Secretary of Commerce have approved the recommendation of the Commissioner of Fisheries for the appointment of a special fur-seal commission, to visit the Pribilof Islands during the present season for the purpose of advising the government as to the condition of the seal herd and of making recommendations regarding the policy that should be adopted with reference thereto.

The members of the commission, in accordance with the suggestion of the Commissioner of Fisheries, have been selected by outside agencies and have had no previous connection with the fur-seal controversy.

In response to a request that a duly qualified assistant of the Department of Agriculture, versed in the breeding and other habits of wild and domestic animals, be designated to serve as a member of the commission, Mr. Edward A. Preble, assistant biologist of the Bureau of Biological Survey, has been nominated by the Secretary of Agriculture.

The Secretary of the Smithsonian Institution was requested to name, as a second member of the commission, a person duly qualified to make a critical study of the economic relations and obligations of the government toward the fur-seal herd, the natives of the seal islands, and the fur trade. Mr. Wilfred H. Osgood, of the Field Museum of Natural History, Chicago, has been chosen for this purpose.

The President invoked the National Academy of Sciences to nominate as a third member of the commission a person qualified to study the scientific and economic questions involved in the administration of the seal herd; and Dr. George H. Parker, of Harvard University, has been duly nominated.

Arrangements have been made for sending the commissioners to and from the seal islands on a revenue cutter; they will arrive in the latter part of June and will remain until the second week in August, thus covering the most critical periods of the land life of the seals.

SCIENTIFIC NOTES AND NEWS

THE spring meeting of the council of the American Association for the Advancement of Science will be held at the Cosmos Club, Washington, D. C., on the afternoon of Tuesday, April 21, at 4:45 o'clock.

AT the general meeting of the American Philosophical Society, held at Philadelphia from April 23 to 25, there will be presented to the society a portrait of the late Samuel Pierpont Langley, a former vice-president.

AS has already been noted in SCIENCE, the American Chemical Society is holding its spring meeting at Cincinnati, Ohio, during the present week. Each of the sections has a full and important program. At the general session on the first day, after addresses of welcome by the mayor of the city and the president of the University of Cincinnati, and a reply by the president of the society, Professor Theodore W. Richards, the following papers were announced: Arthur L. Day, "The Chemical Problems of an Active Volcano"; L. J. Henderson, "The Chemical Fitness of the World for Life"; W. D. Bancroft, "Flame Reactions"; Irving Langmuir, "Chemical Reactions at Low Pressures."

A PORTRAIT of Sir William Ramsay, painted by Mr. Mark Milbanke, has been presented to University College, London, by former colleagues and past students. Professor J. Norman Collie made the address. A replica of the portrait has been presented to Lady Ramsay.

PROFESSOR JOHN F. DOWNEY, dean of the college of science, literature and the arts, of the University of Minnesota and professor of

mathematics, will retire in June, 1913, after thirty-three years of service as a member of the Minnesota faculty.

The Cambridge University observatory syndicate has appointed Professor A. S. Eddington, Plumian professor of astronomy, to be director of the observatory.

Mr. Arthur Scott, for some years past a teacher of science in Chili, has been appointed assistant in the Lick Observatory, on the D. O. Mills Foundation, for service in the work of the D. O. Mills Southern Hemisphere Expedition, which at Santiago, through the gift of Mr. Ogden Mills, of New York, is carrying on extensive studies in the movement of stars in the line of sight.

We learn from *Nature* that the first award of the Kelvin gold medal and prize, founded by Lady Kelvin at the University of Glasgow for the best dissertation in natural philosophy presented for the degree of D.Sc. during the three years 1911–13, has been made to Dr. A. D. Ross, now professor in the University of Western Australia. The first award of the William Jack prize (founded in honor of Emeritus Professor Jack), for the best dissertation in mathematics presented for the degree of D.Sc. during the four years 1910–1913, has been made to Dr. R. J. T. Bell, senior university lecturer in mathematics.

Professor John Zeleny, head of the department of physics of the University of Minnesota, has been granted a year's leave of absence, which he will spend in private study and research at Cambridge, England. Professor Anthony Zeleny will act as chairman of the departments during the year 1914–15.

Professor Ludwig Pick, of Berlin, will deliver the Harrington lectures of the medical department of the University of Buffalo, under the title of "Some Advances in Pathological Anatomy."

Dr. Lightner Witmer, of the University of Pennsylvania, and Professor L. C. Coffman, of the University of Illinois, were the principal lecturers at a week's conference of principals and superintendents of city schools, held at the University of Minnesota, March 23–28, with a registration of about 300.

The Bakerian Lecture of the Royal Society was delivered by Professor A. Fowler on April 2, on "Series Lines in Spark Spectra."

Dr. Egbert Le Fevre, dean of University and Bellevue Hospital Medical College, New York City, died on March 30, from scarlet fever, aged fifty-five years.

Dr. John Henry Poynting, professor of physics at Birmingham University, has died at the age of sixty-one years.

Professor G. M. Minchin, F.R.S., formerly professor of mathematics, Royal Indian Engineering College, Coopers Hill, died on March 23, at the age of sixty-eight years.

Dr. G. J. Burch, F.R.S., formerly professor of physics at University College, Reading, has died at the age of sixty-two years.

Professor G. Joachimsthal, of Berlin, chief of the university clinic for orthopedic surgery, has died at the age of fifty years.

The London *Times* reports that Sir John Murray, the oceanographer, who was killed in a motor-car accident on March 16, has by his will bequeathed his books, papers, letters, collections, specimens, furniture, fittings, instruments, and such effects in his Challenger Office at the Villa Medusa, Wordie, Edinburgh, as also the books, etc., property belonging to his scientific library in Challenger Lodge at the time of his death, to his son, whom failing, to his daughters, along with a number of shares in the Christmas Island Phosphate Company, in order that the dividends may be applied in scientific research or investigations or explorations which are likely to lead to an increase of natural knowledge, and especially in the science of oceanography. He expressed the wish that his deep-sea collection of marine deposits and scientific library should be kept together and be cared for by his sons or daughters, the Villa Medusa being used for the purpose, so that scientific work might be carried on there for 20 years after his death. It is suggested that in the case of substantial expenditure the Challenger Society or the Royal Society of London or the Royal Society of Edinburgh might be consulted.

To search the Arctic Circle for the lost Canadian exploration ship *Karluk* the steam whaler *Herman* has left San Francisco. The Canadian government is sending the whaler to the relief of the *Karluk,* which with the greater part of her crew has been missing for several months. It will be remembered that Mr. Stefansson, commander of the expedition, who with three of the crew left the *Karluk* which was fast in the ice, to hunt caribou, could find no trace of the vessel when they returned. The ice had been broken up by a gale and the ship, it is supposed, drifted eastward. Captain C. T. Pedersen, master of the *Herman,* believes he will find the *Karluk* somewhere between Point Barrow and Herschall Island, locked among icebergs.

Nature states that while the various official and private expeditions are making preparations for observing the total solar eclipse of August 21 next, steamship companies are offering pleasure cruises which include a stay on the line of totality on the Norwegian coast. The Royal Mail Steam Packet Company's ocean yachting steamer, *Arcadian,* twin screw, and 8,939 gross tonnage, is timed to leave Grimsby on August 15 and Leith, August 16, and will take up a position near Alsten, north of Torghatten Island, well on the central line. The Norway Travel Bureau of the Great Northern Railway Company has also arranged a special cruise. Passengers leave Newcastle-on-Tyne by the steamship *Venus* on August 15, and join the special steamer *Mira* at Bergen on August 17, a position being taken up at Stokka on eclipse day. It is stated that if a party of seventy-five to eighty members of the Royal Astronomical Society and the British Astronomical Association would avail themselves of this facility no other passengers would be accepted, and the itinerary would be varied to meet the requirements of the party, and the stay at any place in the eclipse zone prolonged.

THE Association of Dental Faculties of American Universities met at the University of Minnesota, March 20–21. Dean Owre, of Minnesota, read a paper recommending the adoption by this association of a four-year course in dentistry for all the colleges composing the association. This recommendation was adopted. The deans present at the meeting were: Frank T. Breene, Iowa State College; Edward C. Kirk, University of Pennsylvania; James Sharp, University of California; F. B. Moorehead, University of Illinois, and W. S. C. Hoff, University of Michigan. In addition there were present several members of the faculties of the institutions represented. The dental college of Washington University, St. Louis, Dr. J. H. Kemmerly, delegate, was admitted to membership.

WORK is now in progress at the University of Chicago on a building for the Departments of Geology and Geography to be known as the Julius Rosenwald Hall. It will be made of stone, steel and cement and be fireproof in the best sense of the term. The cost will be about $260,000, exclusive of the furniture and equipment. It adjoins Walker Museum and will be connected with it by corridors on each floor. Both buildings will be served by an elevator in the corridor connection. As the plans have been carefully drawn on the basis of large experience, the following list of the appointments may be of interest to geologists and geographers: A museum room, an assembly hall, six class rooms, a seminar room, laboratories for mineralogy, petrology, economic geology, geo-chemistry, macroscopic determination, ore genesis, high temperature and high pressure experiments (outside the main walls of the building), physiographic modeling, dynamical and structural experimentation, lathe and section work, and miscellaneous work, a laboratory-conference room, a seismograph room (with pier carried down to solid rock by caisson), a vault for documents and rare material, three map laboratories with three associated map-conference rooms, a general departmental reading room with accommodations for eighty, a stack room for departmental library with capacity for 66,000 books, with book-lift, and a library work room; a research reading room, five research study-rooms for staff, a staff research room each for geology and for geography, ten research rooms for candidates for Ph.D., a council room, nine

offices for staff, a stenographer's room, a waiting room, a meteorological tower, with a laboratory, a work room and an office, three dark rooms, a goniometer room, a microphotographic room, a room for liquid separation of minerals, five storage rooms, five storage closets connected with class rooms, cloak rooms, lockers and four toilet rooms. The ventilation will be forced by an electric fan in the basement supported by a suction fan near the roof. The exterior of the building will be ornamented with symbolic bas-reliefs representing subjects appropriate to the earth sciences, as well as some of the great leaders in special phases of the science. The contract calls for the completion of the building by the first of November. The paleontologic work will remain in Walker Museum and the two buildings will be used in close relationship.

The water supply of the great Missouri River drainage area is the subject of a publication recently issued by the United States Geological Survey, entitled "Surface Water Supply of the Missouri River Basin, 1911," by W. A. Lamb, W. B. Freeman and Raymond Richards. This report contains the records of flow at 130 permanent stations of the survey during the year 1911, data which are necessary to every form of water development, whether it be water power, navigation, irrigation or domestic water supply. Some of the tributary streams are exceedingly variable in flow; others, like the Niobrara in Nebraska, are remarkably uniform. A systematic study of Missouri River and its tributaries is being carried on by the United States Geological Survey. Considering the varied character of the streams of the Missouri River basin and their great economic importance for irrigation, power and other purposes, the investigation is one of importance. The Missouri proper is formed in southwestern Montana by the junction of three streams which were discovered by Lewis and Clark in 1806 and were named by them Jefferson, Madison and Gallatin Rivers. Of these three Jefferson River drains the largest area and is considered the continuation of the main stream. This part of Montana is mountainous and affords many excellent water-power sites. Among the principal tributaries of the Missouri are the Marias, Musselshell, Yellowstone, Cheyenne, Platte and Kansas. The western part of the basin is in the arid belt and the eastern part is in the semiarid and humid regions. Ten states are drained in part by Missouri River. Rising at the Red Rock Lakes, at an elevation of 6,700 feet above sea level, this stream descends through the Rocky Mountains and emerges on the broad prairie land a few miles below the city of Great Falls, Mont. From that point it is accounted a navigable stream with an easy grade, and in passing through the Dakotas and along the borders of Nebraska, Kansas and Iowa it receives the flow of great tributaries, so that as it crosses the State of Missouri and joins the Mississippi a short distance above St. Louis, it becomes one of the large rivers of the world. Its total drainage area is about 492,000 square miles in extent and comprises, in addition to the states above mentioned, large areas in Wyoming and Colorado and a smaller area in the southwestern part of Minnesota. On Shoshone River in Wyoming, a tributary of the Bighorn, which in turn is tributary to the Yellowstone, which joins the Missouri in eastern Montana, is located the Shoshone dam, the highest structure of its kind in the world, 328 feet from foundation to capstone. This structure was erected by the government to impound water for irrigation on the arid lands in the valley of Shoshone River below. Another great structure of a similar kind is located in Wyoming on North Platte River, which joins the Missouri near Omaha, Nebr. This is known as the Pathfinder dam, and was also erected by the government to impound water for use in the irrigation of lands in Wyoming and Nebraska. Another notable engineering structure in the drainage basin of the Missouri River is the Belle Fourche dam, erected across the river of the same name in South Dakota by the government to impound water for irrigation. This dam is an earth embankment 155 feet high and one and one fifth miles long, containing 1,600,000 cubic yards of earth fill. This is the largest earth dam in existence.