paintings entitled: "Nature's Creations," "Man's Despoliation" and "Science's Restoration." Below these pictures and extending out a few feet in front is a rock garden and pool. To one side is a working model of a fish ladder, while on the other side is a model of a fish lock or elevator. Water running from the two models flows into a central pool in which are various fish and aquatic plants.

On the north wall is a large painting entitled "The Angler," while on each side of this are two cases exhibiting fishing tackle suitable for salt water, surf, bass and trout fishing. This tackle was supplied by various tackle manufacturers. Above the painting and tackle cases are nine transparencies showing views of various hatcheries of the bureau and of oyster culture.

There are three large cases against the south wall. The story of the utilization of fishery by-products of one hundred years ago and at the present time is told in one, while the next exhibits dyed and dressed sealskins and the beneficial effect of the North Pacific Seal Treaty on the Pribilof seal herd. The third case gives a résumé of biological fishery research work of the bureau, especially as to the methods used in deep sea investigations, fish tagging and on the study of the composition of the mackerel catch for the last ten years. Over these cases also are transparencies, depicting various activities of the bureau.

OBITUARY

DR. ELEANOR ACHESON MCCULLOCH GAMBLE, professor of psychology at Wellesley College, died on August 30, at the age of sixty-five years.

JOHN BENTLEY, JR., professor of forest engineering at Cornell University since 1917 and a member of the faculty since 1912, died on July 26, at the age of fifty-three years.

EDWARD ROBERTS, formerly of the British Nautical Almanac office, known especially for his work in the practical development of tidal prediction, died on August 4 at the age of eighty-eight years.

A WIRELESS message announcing the death of Dr. M. O. Malta has been received at Ottawa. Dr. Malta, who was a native of Sweden and for the past thirty years research botanist of the Federal Government, was taken ill suddenly while on an Arctic expedition.

SIR PHILIP MAGNUS, formerly Conservative member of the House of Commons for London University, an authority on mechanics, hydrostatics, mathematics and technical education, died on August 29. He was eighty years old. Sir Philip, until he retired in 1925, was a lecturer on mathematics and science at London University and at colleges and universities throughout the United Kingdom.

SCIENTIFIC NOTES AND NEWS

THE British Association for the Advancement of Science is meeting in Leicester from September 6 to 13. The address of the president, Sir Frederick Gowland Hopkins, which will be printed in SCIENCE, is entitled "Some Chemical Aspects of Life." In addition to the arrangements for the meeting reported in the issue of SCIENCE for May 19, it is announced that there will be discussions on atomic transmutation, to be opened by Lord Rutherford, and on the expanding universe, to be opened by Sir Arthur Eddington.

DR. JAMES BRYANT CONANT took up his work as the twenty-fifth president of Harvard University on September 1. The formal inauguration will take place on the twenty-fifth of this month. Prior to his election to the presidency Dr. Conant was Sheldon Emery professor of organic chemistry.

A SPECIAL tribute on the occasion of his eightieth birthday will be paid to Dr. Karl Sudhoff, professor of the history of medicine at Leipzig, founder of the German Society for the History of Medicine and Natural Science, at its annual meeting at Erfurt on September 9 and 10.

PROFESSOR AUGUST GÄRTNER, formerly professor of hygiene at Jena, recently celebrated his eighty-fifth birthday.

DR. ROCH, professor of clinical medicine at Geneva, and Dr. Haškovec, professor of clinical neurology at Prague, have been elected foreign corresponding members of the Academy of Medicine, Paris.

DR. E. KOHN-ABREST, of Paris, has been elected a foreign corresponding member of the Royal Academy of Medicine of Belgium.

PROFESSOR W. LANGDON BROWN, Regius professor of physic in the University of Cambridge, was recently elected a member of the Atheneum Club under the provisions which empower the annual election of men of distinguished eminence in science, literature, the arts or for public service.

PROFESSOR M. GALE EASTMAN, head of the department of agricultural economics and associate dean, has been named dean of the College of Agriculture at the University of New Hampshire. He succeeds Professor F. W. Taylor, who has been placed in charge of practical farm projects.

FOLLOWING the recent reorganization of curriculum and courses at Bucknell University, the various departments of science and of engineering have been coordinated into two new administrative units. Professor F. M. Simpson has been appointed chairman of the natural science group, and Professor S. C. Ogburn, Jr., chairman of the engineering group.

PROFESSOR H. W. FLOREY, Joseph Hunter professor of pathology in the University of Sheffield, has declined the offer of the Sir William Dunn chair of pathology tenable at Guy's Hospital Medical School, London.

DR. H. P. GILDING has been appointed to succeed Professor I. de Burgh Daly in the chair of physiology at the University of Birmingham.

DR. OTTO GERNGROSS, professor of chemical technology at the University of Berlin, has been appointed professor at the Agricultural School at Angora.

THE *Journal* of the American Medical Association reports that the Robert Koch Institute for Infectious Diseases, in Berlin, originally under the direction of Koch himself, was, for many years, under the directorship of Professor Fred Neufeld, who has become known through his researches on tuberculosis. Professor Karl Friedrich Kleine, who, for many years, has been a department director at the institute, has been appointed his successor. Professor Kleine was one of the intimate collaborators of Robert Koch. He served as director of the crusade against trypanosomiasis in German East Africa and was the first investigator who transmitted sleeping sickness to apes through the natural intermediate host, the tsetse fly.

Nature reports that Dr. D. P. D. Wilkie, professor of surgery in the University of Edinburgh, has been appointed a member of the Medical Research Council in succession to Wilfred Trotter, who retires in rotation on September 30, after four years' service.

DR. ROY CHAPMAN ANDREWS, of the American Museum of Natural History, has returned to the United States after a visit to Europe.

DR. CARLETON S. COON, of Wakefield, Massachusetts, has sailed for Europe. He plans to spend a year in Ethiopia, where he will engage in anthropological research for Harvard University.

DR. WARREN K. MOOREHEAD, director of the archeological department of Phillips Academy at Andover, Massachusetts, and a member of the Committee on State Surveys of the National Research Council, plans to spend the time between October 1 and April 20 in an inspection and study of museum and private archeological collections. His tour will embrace some twenty-six states. The well-known archeological centers will be avoided. Museum curators, students and collectors are requested to correspond with Dr. Moorehead, who will send those interested a copy of his itinerary.

DR. CO CHING CHU, director of the National Research Institute of Meteorology, Nanking, China, is now in the United States. He attended the Fifth Pacific Science Congress, held in Victoria and Vancouver, British Columbia, this summer as an official delegate.

SIR HAROLD HARTLEY, of London, fellow of the Royal Society and vice-president of the London, Midland and Scottish Railway, visited Pittsburgh on August 28 and 29 for the purpose of inspecting the Coal Research Laboratory of the Carnegie Institute of Technology. Sir Harold was brigadier general in the Chemical Warfare Division of the British army during the war. He has been a member of the Fuel Research Board of the Department of Scientific and Industrial Research of Great Britain since its inception and is now its chairman. He is also research director in scientific matters for the London, Midland and Scottish Railway.

PROFESSOR V. KARAPETOFF, of the department of electrical engineering of Cornell University, has been appointed Lieutenant Commander in the Naval Reserve and has been assigned to the Volunteer Naval Reserve for engineering duties.

MAJOR JAMES S. SIMMONS, Major Virgil H. Cornell, Sergeant George F. Luitpold and Sergeant Jesse F. Rhoads, of the U. S. Army Medical Corps, have gone from Washington to St. Louis to study the encephalitis situation.

IN memory of the late Howard W. Estill, D.Sc., assistant professor of bacteriology at the University of California Medical School, Mrs. Estill has given his library to the medical school and the San Francisco branch of the state medical library. The gift includes monographs and reference volumes relating to organic, physical and colloid chemistry as applied to biology and medicine.

A VOLCANOLOGICAL museum founded by Frank A. Perret was opened on August 27 at St. Pierre, in the northern part of the French West Indian island of Martinique. The institution, provided for by American and local contributions, exhibits relics dug from ruins of eruptions of Mt. Pelée and other volcanoes. Mr. Perret, a member of the Volcanic Research Society, of Springfield, Massachusetts, who has conducted research at Mt. Vesuvius, Italy, and Sakurajima, Japan, recently received the decoration of Chevalier of the Legion of Honor from the French government.

APPLICATIONS for the positions of senior engineer,

engineer, associate engineer and assistant engineer must be on file with the U. S. Civil Service Commission at Washington, D. C., not later than September 28. The examinations are to fill vacancies occurring throughout the United States. The entrance salaries range from $2,600 to $5,400 a year, less a deduction of not to exceed 15 per cent. as a measure of economy and a retirement deduction of three and a half per cent. Optional branches are aeronautical, agricultural, civil, construction, electrical, heating and ventilating, highway, mechanical, mining, radio, structural and telephone engineering. Competitors will not be required to report for a written examination, but will be rated on their education and experience.

EVERY regular employee in the field service of the Bureau of Fisheries will be subject to 15 days' administrative furlough during the current fiscal year in order to remain within its 1934 limitations, with the exception of the Alaska vessel service, which will be handled in another manner.

WE learn from *Nature* that there has been a change in the regulations for Part II of the Natural Science Tripos (physics and chemistry) at the University of Cambridge, to take effect in 1934. Under the new regulations, there will be four papers in chemistry: two of a general nature and two more specialized, including questions in inorganic, organic, theoretical and physical chemistry, colloid science, metallurgy and crystal chemistry. A sufficient number of questions will be set for a candidate to attain a first class in one or more of the subdivisions. Four papers will also be set in physics, three being of a general nature. The fourth paper will contain specialized questions on some branches of physics, but a sufficient number of questions on crystallography and crystal physics will be set in this paper to allow a candidate to gain full marks by answering questions on these branches only.

A CORRESPONDENT of the *Journal* of the American Medical Association writes: "On May 27 the jubilee of Professor d'Arsonval was celebrated at the Sorbonne, in the presence of the President of the Republic. Since 1872 this savant, who carries his eighty-two years with youthful nonchalance, has taught at the Collège de France. The public, and to a certain degree even the medical profession, has been ignorant of d'Arsonval's contributions to the sciences of physics and medicine. To many he has just been a name, to still more his name even has been unknown until this present jubilee was made the occasion for short explanatory articles in the medical and lay press. Working on the physiology of the muscles and nerves, he found he had to create new electrical equipment, and as his researches proceeded he conjured up one delicate instrument of precision after another—electrodes, galvanometers, the electric bistoury, etc. The father of diathermy, he has opened out new fields, the therapeutic possibilities of which have not yet been fully explored. In response to the many laudatory addresses delivered in the great amphitheater of the Sorbonne, d'Arsonval, in a simple speech, gave the credit for the influences which had inspired him in his youth to one man and one setting. The man was Claude Bernard, and the setting was the Collège de France. Here, sixty years ago, Claude Bernard made it possible for his youthful pupil to develop those qualities which have yielded such wonderful fruit. After Claude Bernard, d'Arsonval mentioned the names of two men—Marey and Brown-Séquard—to whose inspiration he owed much."

RIDING MOUNTAIN NATIONAL PARK, Canada, officially opened on July 26, was set aside as a playground and animal reserve three years ago. The park, which is wholly within the Province of Manitoba about 100 miles west of Winnipeg on the Canadian National Railways, comprises an area of 1,148 square miles, which is heavily wooded and contains several lakes. Within the park are contained between 2,000 and 3,000 head of wapiti, probably the largest herd in Canada, and also a small herd of buffalo, which is kept in an enclosure of 332 acres. The terrain of the park, although surrounded by prairie, is decidedly rolling and offers a variety of scenery. The roads leading to and within the park have been resurfaced and graded, and the park has been brought up to the standard of the other national parks under the jurisdiction of the Department of the Interior of the Federal Government.

FOR several years the United States Geological Survey and the Pennsylvania Topographic and Geologic Survey have been engaged in making a systematic study of the ground-water resources of the State of Pennsylvania, in order to be able to serve the people of the state more adequately in solving the innumerable problems of municipal, industrial and domestic water supply. In connection with this general program a detailed report has been prepared by S. W. Lohman on the ground-water resources of the northeastern part of the state, including Carbon, Columbia, Lackawanna, Luzerne, Monroe, Montour, Northumberland, Pike, Schuylkill, Susquehanna, Wayne and Wyoming Counties and the northern part of Dauphin and Lebanon Counties. In preparing this report all existing geologic information was utilized, and a large amount of hydrologic information was obtained in regard to more than 1,100 wells. Chemical analyses were made of 106 samples of water collected from wells and springs. Manuscript copies of the report are on file and may be consulted in the offices of the Pennsylvania Topographic and Geologic Survey at Harrisburg and of the U. S. Geological Survey at Washington.