SCIENTIFIC EVENTS

AMERICAN PROPOSALS TO THE INTERNATIONAL GEODETIC AND GEOPHYSICAL UNION

THE following two items have been submitted to the International Geodetic and Geophysical Union by the American Geophysical Union and will appear on the agenda of the union at the meeting to be held in Madrid, Spain, from October 1 to 10:

Item I.—Discussion of the desirability of expediting the topographic mapping of all land areas of the world, as well as the mapping of the configuration of all oceanic basins.

Explanation.—A knowledge of the geographic location of all topographic features and of the configuration of the ground, both on land and in the depths of the sea, is essential in carrying on the various branches of the geophysical sciences. This is especially true in geodesy, volcanology, seismology, meteorology, terrestrial magnetism and scientific hydrology. It is scarcely necessary to go into details in this explanation of the proposed item for the agenda, as to the scientific values of topographic maps. Every one engaged on geophysical investigations has had experience which makes him familiar with the ease with which work can be carried on where good topographic maps are available, and the great difficulties which are encountered when he has to try to work in regions which have not been topographically mapped.

Aside from the scientific value of topographic maps there is a tremendous practical value. The great problem of the human race is to discover, develop, utilize and conserve the products of the land and the sea, which furnish the means by which people are kept alive. The world's population is increasing from year to year and consequently in the future greater amounts of supplies must be extracted from the earth and the sea. It would appear to be the logical method to pursue to make topographic maps, even though in some parts of the world they might be rather crude, in order to furnish a knowledge of geographic positions and the configuration of the ground. These surveys should be followed by investigations to determine the resources of each portion of the earth, both land and sea. These resources, for the land areas, would consist in soil fertility, forests, waterpower, irrigable lands, lands that may be drained and minerals of various kinds including oil and coal. With all this knowledge plans based on sound economic principles can be outlined which would make it possible to use the resources of the world in a rational way without depleting them to such an extent that future generations would suffer. Similarly, the resources of the different oceans could be determined and utilized in a rational way, and the information gained from a knowledge of the configuration of the oceanic basins would shed a flood of light upon geophysical sciences in general.

After discussing this item, the Union may decide to pass resolutions commending those countries which have already completed or nearly completed their topographic maps and urge that the unmapped areas of the earth should receive careful attention of the nations to which they belong. The oceanographic work already accomplished or being undertaken by the different governments should be noted and commended, and all nations should be encouraged to increase and extend their work in oceanography.

Item II.—Discussion of the advisability and methods of promoting international cooperation for the advancement of oceanographic and the cognate sciences of geophysics upon the basis of the International Council for the Exploration of the Sea.

Explanation.—It is worthy of note by geophysicists that, in the foundation upon which the future superstructure of geophysics is to be raised, there must be a knowledge of the configuration of the oceanic basins, and of the functions of the ocean and the properties of its waters.

The International Council for the Exploration of the Sea purposes, upon acquiring the oceanographic exploring vessel of the late Prince of Monaco, to extend its operations into the intercontinental oceans, thus passing out beyond the confines of the continental seas in which its labors have already resulted in important advances in the geophysical sciences.

The question proposed to be discussed is whether the International Union of Geodesy and Geophysics, in its aspects as an alliance among those earth-sciences whose interests are promoted by oceanic exploration, such as geology, seismology, volcanology, geodesy, meteorology and terrestrial magnetism, should seek, by resolution addressed to the International Research Council, to invoke international cooperation in supporting the prospective undertaking of the International Council for the Exploration of the Sea.

REORGANIZATION OF THE BUREAU OF MINES

UNDER an order approved by the Secretary of the Interior, the following-named technical divisions and offices of the Bureau of Mines have been recognized:

The Division of Mining Experiment Stations, with administrative control of the stations at Pittsburgh, Pa.; New Brunswick, N. J.; Columbus, Ohio; Minneapolis, Minn.; Salt Lake City, Utah; Tucson, Arizona; Seattle, Wash.; St. Louis-Rolla, Mo.; Birmingham-Tuscaloosa, Ala.; Reno, Nev.; Berkeley, Calif.

The Division of Metallurgy, charged with the conduct of researches in physics, chemistry and engineering connected with the metallurgy, ore dressing, reduction and refining of the ferrous and major nonferrous metals; specifically of iron, steel, copper, lead, zinc, aluminum, gold, silver and their alloys. This division will be under the direction of the chief metallurgist who will have administrative charge of the field studies now being conducted at Miami, Okla.; Moscow, Idaho; at the Massachusetts Institute of Technology, and at the Bureau of Standards; together with the cooperative studies on oxygen enrichment of air blasts.

Division of Mineral Technology, under the charge of the chief chemist.

Division of Fuels, under the charge of the chief mechanical engineer.

Division of Petroleum and Natural Gas, under the chief petroleum engineer.

Division of Mineral Leasing, to have charge of all work of the bureau relating to leases other than oil and gas, on the public and Indian lands. This division will be under the direction of an engineer-in-charge, headquartered at Washington, who may serve coincidently as chief mining supervisor.

Division of Mining Research, charged with the duty of conducting field and laboratory research as to mining methods in relation to safety, economy and efficiency in mining. This division will be under the supervision of an engineer-in-charge who will have technical supervision over all employees engaged in studies within its field and administrative control of the Urbana, Ill., staff, the Alaska staff, and such district and resident engineers as may be assigned to the work. The Division of War Mineral Supplies is abolished and its duties, records and personnel are transferred to this division. The present chief of the Division of War Mineral Supplies is detached from duty and will report to the director for special service.

The Safety Service, charged with the duty of disseminating throughout the mining and mineral industries the safety practices developed in or approved by the Bureau of Mines, will include the study, development and introduction of special mine rescue apparatus, the mine rescue work of the bureau, the mine rescue and first-aid training, the making of safety service reports, the holding of safety meets and rallies, and of mine rescue and first-aid meets and contests, and all extension work of the bureau devoted to increasing safety in the mineral industries. It will be in charge of the safety service director.

Chief Surgeon's Office, to be conducted by the chief surgeon, who will have technical supervision of all medical studies and studies of health hazards conducted by the bureau, and administrative control of all medical officers assigned to it. He will represent the bureau in cooperation with the Public Health Service.

Chief Explosives Chemist's Office, to be conducted by the chief explosives chemist, who will act as consultant in all studies of explosives conducted by the bureau, will approve all specifications for and tests made of permissible explosives, and will have technical supervision of the cooperation with the army, navy and other departments or institutions where the work relates to explosives.

Two Administrative Divisions, consisting of the Office of Chief Clerk, and the Information Service, as now organized, shall be recognized.

The present mine safety committee at the Pittsburgh station is abolished and in lieu thereof there is constituted a general mine safety board under the chairmanship of the chief mining engineer. It will include in addition the representatives of the Mine Safety and Mining Research divisions and of the chief surgeon and the chief mechanical engineer.

George S. Rice, chief mining engineer, is relieved of most of his administrative duties and will serve as advisor to the director and assistant director on mining matters with such special duties as may be from time to time assigned to him. For the present he will be in entire charge of matters relating to cooperation with the British government in studies of safety in mines. He will serve as chairman of the Mine Safety Board, and will have technical supervision over the studies conducted at the experimental mine at Bruceton, Pa.

NEW ENDOWMENT FOR THE JOHNS HOPKINS UNIVERSITY

A HALF century program involving $16,350,000 for education and research at the Johns Hopkins University and the Johns Hopkins Hospital was announced to-day by Daniel Willard, president of the Baltimore & Ohio Railroad and chairman of the committee appointed by the trustees to finance a series of developments laid out in a survey begun in 1920 and undertaken in connection with the close of the university's first half century in 1926.

Toward this program $8,385,000 has already been raised, leaving a little less than $8,000,000 to be secured within the next twelve months.

The projects yet to be financed in the raising of the remaining $8,000,000 include a new chemical laboratory, an alumni memorial dormitory, general endowment for the academic and scientific departments of the university, endowment for the department of children's diseases, construction of a new central heating and power plant, construction of a new nurses' home, endowment for the School of Nurses, endowment for the Medical School, endowment for the hospital, construction and endowment of a new medical library and the construction and endowment of a new medical clinic.

The $8,385,000 which already has been contributed includes the following gifts: Eighty-five thousand dollars from graduates of the hospital's school for nurses for endowment of the school, $400,000 from the General Education Board for a pathological laboratory, $400,000 from Mrs. Lucy Wortham James for a woman's clinic, $2,000,000 from the Carnegie Corporation for a new dispensary, $2,000,000 from Mr. and Mrs. Henry Phipps, the General Education Board, Edward S. Harkness and interested Balti-