

tensities, (2) measurement of hyperfine structure, (3) analysis of spectrum series, especially with the aid of the newly developed mechanical analyzer, (4) vacuum spectroscopy of the ultra-violet, (5) quantitative chemical analysis by spectroscopic methods. In all these fields the laboratory possesses unexcelled, and in the second and fourth fields, unique, facilities. In addition to opportunities for conference and research, there will be graduate courses in spectroscopy, atomic and molecular structure and related subjects.

The plans provide for three groups: (1) scientists of recognized achievements in the field of spectroscopy, who will be guests of the laboratory, (2) graduate students who will be expected to pay moderate tuition fees, (3) industrial organizations which may send qualified representatives to work on spectroscopic problems of chemical analysis, or which may submit problems to be worked on by industrial research fellows under supervision of the laboratory staff, in accordance with contracts to be made with the Institute's Division of Industrial Cooperation.

Requests for information in regard to facilities or summer living arrangements and applications for admission to these activities should be addressed to Professor George R. Harrison, Department of Physics, Massachusetts Institute of Technology, Cambridge, Massachusetts.

#### THE FIFTH UNIVERSITY OF MICHIGAN GREENLAND EXPEDITION

THE Fifth University of Michigan Greenland Expedition is included among the Second Polar Year Expeditions of 1932-33. This expedition is directed by Professor Ralph L. Belknap, who was second-in-command on earlier Michigan expeditions. With Evans S. Schmeling, aerologist, and Herbert Gardner, photographer and botanist, he sailed for Greenland on the *Morrissey*, Captain Robert A. Bartlett, master, which took the Peary Memorial Expedition to North Greenland last summer. His companions were landed with the supplies of the expedition on the neck of the Upper Nugssuak Peninsula in latitude 74°, while Dr. Belknap proceeded to Cape York to act as construction engineer in the erection of the Peary Shaft.

The expedition base is much the same as that of the Cornell Expedition more than thirty years ago and the station is located near the front of the Cornell Glacier outlet. Dr. Belknap, the director, rejoined his expedition on August 31 and the lumber used in erection of the Peary Shaft was then used to build the hut of the expedition, which has been named Peary Lodge. On September 18, Max Demorest, assistant aerologist, and Hansen, radio operator, with additional supplies, arrived from Upernivik on the little motor sloop *Saelen*. The *Saelen*, carrying letters on its return, was wrecked with the loss of all on board,

so that relatively meager reports from Dr. Belknap have been received up to the present. However, a number of radio messages, relayed through various amateur stations, have indicated that the party is well, and that scientific work, particularly that in aerology, has been proceeding satisfactorily. The winter night, which arrived in early November, has since that time interfered with the upper-air studies.

When in February or March the light becomes better Dr. Belknap plans to make a somewhat extended penetration by dog sled of the inland ice and carry out various scientific studies including the upper air and sounding of the glacier. The expedition is expected to return in early October.

WILLIAM H. HOBBS

#### THE FIFTH PACIFIC SCIENCE CONGRESS

ANNOUNCEMENT has been made recently by the National Research Council of Canada that plans have been resumed for holding in the coming summer the Fifth Pacific Science Congress, which it had been originally planned to hold last May. This congress will convene in Victoria and Vancouver, British Columbia, between the dates June 1 and 14, 1933. During the week following the sessions of the congress, excursions will be conducted through the western part of Canada.

The purpose of this series of congresses is to give opportunity for the discussion of scientific problems relating to the Pacific area, and to plan for the advancement of research upon these problems through the coordinated efforts of research institutions in the countries within the Pacific region. Previous congresses were held in Honolulu (1920), Sydney and Melbourne (1923), Tokyo (1926), and Batavia and Buitenzorg (1929). The congresses are organized under the immediate auspices of the National Research Council or corresponding scientific body in the country in which they are held, and are under the general sponsorship of the Pacific Science Association, which comprises scientific organizations from fourteen of the Pacific countries.

The program of the congress this year will include a series of general symposia upon the recent applications of science in forestry, agriculture and fisheries, also a general symposium upon the geological significance of the floods in lands bordering on the Pacific Ocean, and a symposium for a discussion of the origin and antiquity of the American aborigines. Other sessions of the congress will be arranged in two general groups, one for the biological sciences and one for the physical sciences. In the former, provision will be made for the discussion of problems relating to agriculture, anthropology and ethnology, animal diseases, public health, botany and plant pathology, forestry, zoology, entomology and fisheries.