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 fiords 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.

In the group for the physical sciences provision will be made for the discussion of problems of astronomy, geodesy and geography, geology and mineral resources, seismology and volcanology, oceanography, meteorology and terrestrial magnetism, and radio communications. The contributions to the program of the congress will consist mainly of specially invited papers.

The Government of the United States has been invited by His Majesty's Government in Canada to participate in this congress by the appointment of twenty-five official delegates to the congress from this country. These delegates will be named by the government. In addition the National Research Council of the United States has been authorized to extend an invitation to the learned organizations and institutions in this country to participate in the congress. Universities, societies and research institutions which may wish to appoint representatives to attend this congress are requested to communicate with the National Research Council.

W. H. HOWELL,
Chairman, National Research Council

ENGINEERING WEEK AT CHICAGO

PLANS for the conference of engineers at Chicago, during Engineering Week, June 25 to 30, which is being sponsored by the Century of Progress Exposition, are making progress. Education will be an important theme of the conference, with the Society for the Promotion of Engineering Education taking an important part. In addition to its sessions some twenty of the national engineering societies will participate with sectional and national meetings.

On Sunday evening, June 25, when Engineering Week opens officially, the International Union of Pure and Applied Physics will have a joint session with Section M of the American Association for the Advancement of Science. A number of the engineering societies will participate with a program which is being arranged on the "Application of Physics to Engineering" by Dr. R. A. Millikan. On the evening of June 27, A. P. M. Fleming and H. Gough, of England, will address a similar joint session on "The Industrial Developments of the Century."

In addition to the individual activities of the various groups during the week, there will be a joint conference on Engineers Day. The program for this day includes a banquet at the Hotel Stevens. It is expected that there will be an attendance of more than 3,000. The program, which is not yet ready for announcement, will include addresses by distinguished American and foreign scientific men and engineers.

In addition to the educational exhibits at the Century of Progress Exposition, the sixth Midwest Engineering and Power Exposition will be held at the Coliseum during that week. At this exposition some 300 manufacturers will exhibit the latest developments in steam-generating equipment for power and process purposes. In addition there will be a wide range of equipment such as heating and air conditioning apparatus, water treatment and softeners for swimming pools and many other items of interest to engineers and superintendents of schools.

AWARD OF THE NICHOLS MEDAL

AWARD of the William H. Nichols Medal of the New York Section of the American Chemical Society for 1933 to Dr. Wilder D. Bancroft, professor of physical chemistry at Cornell University, has been announced by Dr. Walter S. Landis, chairman of the Medal Committee. The medal will be presented at a meeting of the New York Section in the Electrical Institute Auditorium, Grand Central Palace, on March 10. "Protein Therapy" will be the subject of Professor Bancroft's medal address. Other speakers will be Professor W. Lash Miller, of the University of Toronto, who will narrate the achievements of Professor Bancroft, and Dr. Charles L. Parsons, of Washington, D. C., secretary of the American Chemical Society, who will discuss the personal aspects of Professor Bancroft's career. Dr. Victor K. LaMer, professor of chemistry in Columbia University and chairman of the New York Section, will preside.

In announcing the award Professor Bancroft's work is described as follows:

> Professor Bancroft's researches are derived from the work of Claude Bernard, French physiologist who sixty years ago advanced the view that anesthesia was due to a reversible coagulation of some of the proteins of the brain and of the sensory nerves. Although biologists, physiologists and medical men rejected Bernard's view, Professor Bancroft has demonstrated that it is of "enormous importance in physiology, pharmacology and medicine."
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> Professor Bancroft's general conclusions are that in some forms of insanity a coagulation of brain and nerve protein occurs. In others, protein dispersion takes place. He points out that in manic depression and epilepsy a slight coagulation of protein has taken place in either all or a part of the brain. Therefore, he concludes that a chemical agent which has the opposite effect on proteins should work toward a cure.
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> Through the use of these methods, Professor Bancroft's researches have indicated that the use of sodium rhodanate may cure narcotic addiction and that it may also be employed eventually as a treatment for hay fever.
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> "If the brain is permanently abnormal," according to Professor Bancroft, "the thinking will be abnormal also and the patient will be called insane. The brain can be abnormal in two ways, by being too puckered or by being too mushy. There must therefore be two types