same time modern physical equipment not duplicated anywhere in Canada, it was possible for visitors to examine side by side a modern cyclotron and some of the original pieces of equipment used by Rutherford in his pioneer experiments.

The Canadian Association of Physicists lends its hearty support to the current project of the Royal Society of Canada honouring Lord Rutherford in the establishment of Rutherford Memorial Scholarships. With this in mind a most enjoyable public lecture was given on the first evening of the Congress by D. A. Keys, vice president of the National Research Council and Director of the Chalk River Atomic Energy Plant. His address, entitled "Rutherford and Atomic Energy", was a happy combination of old and new, in which he described some details of the atomic research at Chalk River, relating it to the early work on radioactivity at McGill. His address was illuminated by many interesting reminiscences of Lord Rutherford, and even included a recording of Rutherford's not-so-gentle laboratory voice. In his vote of thanks, A. N. Shaw, present chairman of the physics department at McGill, contributed other personal reminiscences of Rutherford.

A symposium on "Nuclear Physics" under the chairmanship of J. S. Foster, director of the McGill Radiation Laboratory, occupied the afternoon session. The first paper, on elementary particles, was presented by W. H. Watson of the University of Toronto, who was followed by three speakers representing the National Research Council at Chalk River. G. A. Bartholomew discussed gamma rays of neutron capture, T. P. Pepper spoke on the disintegration of light elements by tritium bombardment, and G. Cowper presented a paper on electronic instruments used in nuclear research. Another of the special symposia was concerned with solid state physics and included papers by K. G. McKay of the Bell Telephone Laboratories, G. Harrower of McGill University, and L. R. McNarry and Miss B. Thomas, both of the National Research Council, Ottowa.

The second day of the Congress opened with a symposium on "Physicists and National Defence" under the chairmanship of R. C. Dearle of the University of Western Ontario, in which O. M. Solandt, chairman of the Defence Research Board, G. M. Shrum of the University of British Columbia, Professor Woonton of McGill, and G. S. Field (also of the Defence Research Board) participated. Sir Henry Tizard, scientific advisor to the Minister of Defence (U. K.), and many members of the Association contributed to the very interesting discussion which followed.

A lively business meeting was squeezed in between the symposium and the papers presented during the afternoon.

The evening meeting was a highlight of the Congress when Sir Henry Tizard gave an informal talk entitled, "The State of Pure and Applied Science in the United Kingdom." Sir Henry, lightly scaling the walls of his address title, delighted his audience with an historical commentary of his experiences in scientific planning in England through two world wars. His dry humor, keen optimism, and penetrating comments were stimulating in the extreme. He made a strong plea for more well-trained men in both pure and applied science.

The final day of the Congress was spent at the University of Montreal. After the morning session of contributed papers there was an opportunity to visit the University buildings and the laboratories under the guidance of M. Rouault, head of the department of physics, and members of his staff. Special interest was shown in the gas diffraction equipment and the upper-air investigations of cosmic rays. This was followed by a reception tendered to Congress members by Monsignor Olivier Maurault, Rector of the University, in the Grand Foyer.

In addition to the social gatherings already mentioned, members attending the Congress were entertained at a reception by McGill University, and to a delightful luncheon at the Cercle Universitaire tendered by the City of Montreal. Professor Lortie carried greetings from the Mayor to members of the Association.

In his presidential address at the opening luncheon J. S. Marshall of McGill University made a plea for better speaking and writing in scientific communications. Congress papers generally were interesting, well given and well received. They were greeted by more than average comment and lively discussion.

The newly-elected executive officers of the Association for 1951–52 are: president, A. D. Misener (University of Western Ontario); vice president, A. B. McLay (McMaster University); secretary, E. Brannen (University of Western Ontario); treasurer, C. C. Gotlieb (University of Toronto); registrar, M. Johns (McMaster University); and directors, J. J. Brown (Montreal), and R. D. Stasion (Toronto).

It is expected that the 1952 Congress will be held at Laval University in Quebec City.

W. Rowles
McGill University, Macdonald College

RADIO RESEARCH

JOINT URSI-IRE MEETING HELD AT NBS

The spring meeting of the U. S. National Committee of the International Scientific Radio Union (URSI) and the professional group on antennas and propagation of the Institute of Radio Engineers was attended by more than three hundred workers in the various fields of radio research. Fifty papers were presented in joint and separate sessions during the meeting, which was held on April 16, 17, and 18 at the Bureau of Standards in Washington as part of the NBS semicentennial celebration.

Included in the joint session, according to word from the Bureau, was a discussion of atmospherics and the propagation of very-low-frequency waves by J. A. Ratcliffe (Cavendish Laboratory, Cambridge, England). Because of the extreme difficulties and expense involved in using low-frequency (below 10 kc) equipment, propagation measurements were made on the low-frequency components of signals generated during thunder storms.

In one of the separate sessions, R. K. Moore (Cornell) described the anomalous propagation observed by radio amateurs at frequencies of 28 to 148 Mc during displays of the aurora. In another session, H. W. Wells (Carnegie Institution) made an analysis of ionosphere measurements which revealed fluctuations of the F2 region between stations separated by a distance of only 100 to 150 miles. One of the Ionospheric Radio Propagation Commission sessions was devoted almost entirely to discussions and results of the absorption and polarization of low-frequency signals. Most of the work discussed by the Commission on Radio Waves and Circuits was on very-high-frequency and microwave antenna problems, techniques and theories pertaining to beam synthesis, and analysis of problems in microwave optics.

The effects on propagation of irregular and rough terrain and of changes in the refractive index of elevated layers of the atmosphere were discussed at the session on Tropospheric Radio Propagation. Also included were some experimental results of investigations in VHF and microwave propagation phenomena. Within the field of terrestrial radio noise, papers were presented which described atmospheric noise levels and wave forms. A method for studying radio noise objectively and the use of radio teletype equipment was presented. Techniques for suppression of radio interference were also discussed.

Newbern Smith (NBS) was in charge of the technical program and arrangements, while the meeting was under the general direction of L. V. Berkner (Carnegie Institution), who served during 1950 as chairman of the National Committee of the URSI. Newly elected officers are C. R. Burrows (Cornell), chairman; Newbern Smith, vice chairman; and A. H. Waynick (Pennsylvania State College), secretary-treasurer.

The International Scientific Radio Union is one of several world scientific unions organized in 1919 under the general sponsorship of what is now the International Council of Scientific Unions. The aims of the Union are to promote the scientific study of radio communications, to aid and organize radio research on an international scale, and to facilitate agreement upon common methods of measurement and the standardization of measuring instruments. The International Union provides an organizational framework to aid in promoting these objectives, although the actual technical work is largely done by the national sections of the various member countries. The U. S. National Committee is subdivided into six commissions: Radio Measurement Methods and Standards; Tropospheric Radio Propagation; Ionospheric Radio Propagation; Terrestrial Radio Noise; Extraterrestrial Radio Noise; and Radio Waves and Circuits.

The Institute of Radio Engineers is the outgrowth of a union formed by the Wireless Telegraph Engineers, of Boston, and the Wireless Institute, of New York. The two bodies organized the Institute to aid in the advancement of electrical communications. As the scope of the industry gradually expanded, it became necessary to subdivide the membership into groups according to their specialized interests. The professional group on antennas and propagation is one of ten similar organizations within the IRE composed of scientists and engineers who have a mutual interest in specialized fields.

A similar meeting of the two groups will take place next October 8, 9, and 10 on the campus of Cornell University. Cornell's School of Electrical Engineering will be the host. Sessions are planned on radio standards and methods of measurement, tropospheric radio propagation, ionospheric radio propagation, extraterrestrial radio noise, circuit theory, and electronics. Because of limited available housing facilities, it is urged that registration be made in advance of the meeting. Advance registration cards and further information may be obtained from A. H. Waynick, The Pennsylvania State College, State College, Pennsylvania.

MEETINGS TO BE HELD

THE AIP'S TWENTIETH ANNIVERSARY MEETING

A record attendance is expected for this fall's meeting in Chicago of the American Institute of Physics in celebration of its founding twenty years ago. Each of the Institute's Founder Societies will hold their regular meetings during the five-day period from October 23 to 27, and it is anticipated that the technical sessions and various special symposia will attract more physicists than has any previous scientific meeting. The joint banquet on Thursday evening, October 25th, will feature addresses by K. T. Compton and Senator Brien McMahon; earlier in the same day the meeting's major symposium will review generally recent progress in physics research. Prospective physicist employers and employees should note that the AIP placement register will be in continuous operation during the meeting. Application forms must be received by the AIP not later than October 1st to insure their being included in the register.

POLYMERS AND COLLOIDS

A Conference on the Chemistry and Physics of Polymers and Colloids will be held at Wayne University on Thursday, September 27th. The conference is sponsored by the College of Liberal Arts of Wayne University in cooperation with several local and national industries. Featured lecturers will be: J. J. Hermans of the University of Groningen, Holland; O. Kratky of the University of Graz, Austria; G. G. Overberger and H. Mark of the Institute of Polymer Research, Brooklyn; J. T. Overbeek of the University of Utrecht, Holland; and E. J. W. Verwey of the Philips Research Laboratories, Eindhoven, Holland.

APS DIVISION OF ELECTRON PHYSICS

A Fall Meeting of the Division of Electron Physics of the American Physical Society will be held on Thursday, Friday, and Saturday, November 1, 2, and 3, 1951.