and Conservation, supported by appropriations made by the last General Assembly and Governor Emmerson, is undertaking an extended program of research which will begin with the occurrence of raw mineral materials in the ground and end with industrial research on utilization and marketing. The program recognizes the need of eight lines of endeavor: (1) special projects to furnish information or solve certain problems of current importance, (2) continuing projects that gradually increase the fund of general information regarding the geology, mineral resources and mineral industrial history of the state, (3) fundamental research into the stratigraphy and structure of the geologic systems of strata, (4) fundamental research into the constitution of the various earth materials, with emphasis on those that are basic to industrial development, (5) chemical and physical research on industrial utilization, (6) study of the flow of minerals into and out of the state and of the trends of the industries as affected by discoveries of new resources, new uses, and new or improved methods of processing, (7) provision of information to the general public, the industries and the various departments of state government, and (8) educational extension and dissemination of knowledge concerning the geology of the state accumulated during the past twenty-six years of investigations, for the benefit of the laymen and the science teachers in the public schools.

The State Geological Survey will now comprise a geological resource section of geological specialists in coal, non-fuels, oil and gas, subsurface data, areal geology, engineering geology, sedimentary petrography, stratigraphy and paleontology; a geochemical section of specialists in organic, physical, analytical and industrial chemistry, and a geophysicist in the broader sense; and a mineral economics section. All these will be supported by the necessary stenographic, clerical and editorial staff. Cooperative topographic mapping with the U. S. Geological Survey will continue on the same scale as heretofore, each organization contributing $50,000 per year.

The urgent need for such an organization of the Illinois Geological Survey to carry out effectively the type of program outlined, was recognized by the mineral industries, engineering organizations, business interests and state officials, and particularly is the need for it evident during the present depression. Fairly adequate appropriations amounting to a total of about $470,000 for the biennium were therefore made by the legislature and the governor.

THE BUFFALO MEETING OF THE AMERICAN CHEMICAL SOCIETY

THE eighty-second meeting of the American Chemical Society will be held in Buffalo, New York, from August 30 to September 4. From the tentative program, as given in *Industrial and Engineering Chemistry,* we learn that the registration office at the Hotel Statler will be open on Sunday, August 30, from 4 to 8 p. m., and from 8 a. m. on the following days. At 2 p. m. on Monday there will be a general meeting at Hutchinson High School Auditorium and a symposium under the auspices of the Division of Industrial and Engineering Chemistry on "New Research Tools," under the chairmanship of Dr. Karl T. Compton. Those taking part are expected to include F. G. Cottrell, E. M. Chamot, R. B. Sosman, F. G. Keyes, W. A. Peters, P. K. Frölich, S. Dushman, W. H. Rodebush, C. P. Smyth, D. H. Andrews, G. L. Clark and J. B. Nichols. In the evening at 7 p. m. there will be a subscription dinner, and a reception by the officers of the society, followed by dancing and cards.

Tuesday and Wednesday will be devoted chiefly to divisional meetings and to group dinners and luncheons. On Wednesday evening at 8:30 p. m. Professor Moses Gomberg, of the University of Michigan, will deliver the address of the president on "Valence Variation and Atomic Structure," followed by the initial presentation of the Langmuir award and of the J. F. Schoellkopf Medal. Divisional meetings will be continued on Thursday and inspection trips will be made to the Buffalo Foundry and Machine Company, makers of chemical equipment, and the Dunlop Tire and Rubber Company. There will also be a sightseeing trip to Niagara Falls with transportation by high-speed trolleys. This trip will include an optional visit to the Niagara Falls Power Company's model of Niagara Falls, a trip through the power house on the American side of the Falls and a trip around the Gorge Route. Visitors will assemble about 5:30 for a festival at Victoria Park on the Canadian side, where a picnic supper will be served. The festival will include music, exhibition sports contests and a special illumination of the falls.

On Friday optional inspection trips are planned to the Tonawanda Paper Company, showing some of the largest paper machines in the world; the Consolidated Aircraft Corporation, where the latest commercial models of planes will be exhibited and demonstrated; the Flexlume Corporation, manufacturers of neon signs and illuminated signs; the Curtiss Aeroplane Company, working exclusively on government orders for planes, and Huntley Station of the Buffalo General Electric Company, an unusual steam power plant.

All the divisions will hold sessions at Buffalo and a number of joint meetings and symposia have been planned. The Division of Biological Chemistry will hold a joint session on Tuesday afternoon with the Division of Agricultural and Food Chemistry and on

Wednesday morning with the Division of Medicinal Chemistry on "The Biochemistry of the Fats," with W. R. Bloor, G. S. Jamieson, W. E. Anderson, R. J. Anderson, W. M. Sperry and L. H. Newburgh as speakers. On Thursday morning it will take part in a joint symposium on endocrines with the Division of Medicinal Chemistry.

The Division of Chemical Education will hold a joint symposium with the History of Chemistry Division on "The History of Chemical Education in America." This is being planned as a memorial to Edgar Fahs Smith, first chairman of both of these divisions. "The History of Chemistry in America from 1820 to 1914" will be divided into four periods, with Lyman C. Newell, C. A. Browne, Harrison Hale and F. B. Dains as speakers. Wednesday afternoon will be devoted to a symposium under the general topic, "Visual Aids in Chemical Education," with papers by invitation only. High-school classes everywhere are invited to send exhibits to the divisional meeting at Buffalo.

In addition to the symposium on "New Research Tools" the Division of Industrial and Engineering Chemistry will hold a joint meeting with the Divisions of Petroleum Chemistry and Gas and Fuel Chemistry. The Division of Petroleum Chemistry will also hold a joint symposium with the Division of Gas and Fuel Chemistry and the Division of Industrial and Engineering Chemistry on the "Utilization of Gaseous Hydrocarbons." Professor Donald B. Keyes will act as chairman of this symposium.

A symposium on "Kinetics of Reactions" has been arranged by the Division of Physical and Inorganic Chemistry for Tuesday morning, which will probably extend through Tuesday afternoon.

The Division of Dye Chemistry expects to hold a three-session meeting divided into three topics: one devoted to spectrophotometry, including papers on the various color analyzers and possibly an exhibit of the latest instruments; another on certain theoretical aspects, and the third given over to the usual miscellaneous papers.

The divisional officers will meet for breakfast on September 2 with Erle M. Billings presiding and Frank C. Whitmore acting as secretary, and the local section officers on September 3 with H. T. Herrick presiding and with Ellice McDonald as secretary.

IN HONOR OF JOHN R. FREEMAN

ACCORDING to the *American Engineering Council Bulletin,* the Providence Engineering Society recently gave a testimonial dinner in honor of John R. Freeman, which was attended by approximately three hundred engineers. Greetings, congratulations and messages of respect were received from engineers and engineering organizations all over the world. The speakers were:

Mr. Charles T. Main, past president of the American Society of Mechanical Engineers; Frank E. Winsor, vice-president of the American Society of Civil Engineers; Professor Charles F. Scott, past president of the American Institute of Electrical Engineers; Professor Charles W. Brown, representing the Geological Society of America; the Rev. John Joseph Lynch, of Fordham College, representing the Seismological Society of America; Benjamin Buttolph, vice-president of the Manufacturers Mutual Insurance Company, representing the Factory Mutual Fire Insurance Companies; Dr. Clarence Barbour, president of Brown University; H. E. Sawtell, president of the Boston Society of Civil Engineers; Blake R. Van Leer, assistant secretary of American Engineering Council, representing the John R. Freeman scholars; Chester T. Morey, president of the Providence Engineering Society; Walter Humphreys, representing the corporation of the Massachusetts Institute of Technology; Governor Norman S. Case, of Rhode Island, and Senator Hebert, who read a message from President Hoover.

Professor Charles F. Scott, speaking as the representative of the American Engineering Council at the testimonial dinner, said:

I have been delegated by the American Institute of Electrical Engineers to bring its greetings to the Providence Engineering Society and to extend its aid in doing honor to Mr. Freeman.

During your active engineering life, Mr. Freeman, you have stood for progress in engineering art and practice, and have labored to make engineering achievement of greater service to mankind. During this same half century the electrical engineering group has pioneered a new field of engineering which has contributed a universal power service for relieving the burden of toil, and has created new means of communication, a new tool for intellectual intercourse, and it is therefore particularly fitting that a group so sympathetic with your aims and achievements as a practicing engineer should be privileged to do you honor on this occasion.

I am commissioned also to bring the greetings of the American Engineering Council. You have been more than a technical, practicing engineer; you have been a "citizen" engineer, you have had a high ideal of the engineer in public service. It is this ideal which has taken concrete form in the American Engineering Council, the common agency of many engineering societies, with common endeavor. These representatives of many technical fields and geographical districts join in rendering engineering service in public affairs.

I might, I think, concisely and adequately define American Engineering Council as an organization for putting into effect the public service ideals of John R. Freeman. And so it is peculiarly fitting that the council should on this occasion do honor to the man whose ideals and whose acts proclaim him as a notable representative of the highest and broadest type of engineer, and as one who has lived to serve his fellowmen.