visory board for its department of metallurgy and arranged for cooperative research fellowships in metallurgy at the Pittsburgh Experiment Station of the Bureau of Mines. Under the arrangement, certain problems in the metallurgy of iron and steel formerly conducted at the Northwest Experiment Station of the Bureau of Mines, Seattle, Wash., are being studied at Pittsburgh. In the study of these problems, the well-equipped laboratories of Carnegie Institute of Technology will be available to supplement those of the Bureau of Mines.

Among the technical problems that are being studied by the newly established metallurgical section are the melting of sponge iron; reduction and carburization in iron smelting; mill ball compositions and preparations; abnormality in case carburized steels; non-metallic inclusions of steel, and requirements for open-hearth refractories.

In the study of these problems the large technical staff of the Bureau of Mines will be assisted by members of the faculty of Carnegie Institute of Technology and by the members of the Metallurgical Advisory Board, which is composed of prominent metallurgists connected with the industrial organizations of the greater Pittsburgh district. Some of the investigations will be conducted largely in operating plants in and near Pittsburgh. Other agencies in close proximity that will help facilitate the work are the University of Pittsburgh, the Mellon Institute and the Carnegie Library.

The equipment of the new metallurgical laboratories includes a modern electric-furnace laboratory well arranged for fundamental work in many branches of the metallurgy of iron and steel; a metallographic laboratory, and a chemical laboratory.

The metallurgical section of the Pittsburgh Experiment Station is under the general supervision of D. A. Lyon, assistant director and chief metallurgist of the Bureau of Mines, and S. P. Kinney, the supervising ferrous metallurgist. The latter correlates all the ferrous work of the bureau and conducts blast-furnace investigations. The work of the metallurgical section is directly in charge of the section chief, C. E. Sims, who is also the electrometallurgist of the bureau and who handles all work pertaining to electrometallurgy or the electric furnace. F. W. Schroeder, a chemist, who has done graduate work in ceramics and extensive research work on refractories, will handle the work of the section having to do with the metallurgical requirement of refraction. B. M. Larsen, a chemical engineer, who has specialized in metallurgy, will conduct research problems in the metallurgy of steel. A. K. Hutton handles the analytical work.

THE BRITTEN BILL TO EXTEND THE USE OF THE METRIC SYSTEM IN THE UNITED STATES

A METRIC bill, for the purpose of extending the use of metric weights and measures in merchandising, was introduced into the House of Representatives on December 7 by Fred A. Britten, congressman from Illinois. The bill was referred to the committee on coinage, weights and measures, which has been holding hearings since February 1. The text of the bill follows:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, that from and after the 1st day of January, 1935, metric weights and measures, except as herein provided, shall be used for the following purposes:

(1) For buying or selling goods, wares, or merchandise, unless permission to use other weights and measures has been granted by the United States Department of Commerce or by a state department of weights and measures or by an authorized state official.

(2) For charging or collecting for the transportation of any goods, wares, or merchandise, unless permission has been granted to do otherwise by any of the authorities designated above.

SEC. 2. Not later than the 1st day of January, 1935, all postage, excises, duties, and customs charged or collected by weight or measure by the Government of the United States of America shall be charged or collected in terms of or according to metric weights and measures.

SEC. 3. Nothing in this act shall be understood or construed as applying to—

(1) The construction or use in arts, manufacture, or industry of any specification, drawing, goods, wares, merchandise, tool, machine, or other appliance or implement designed, manufactured, constructed, or graduated in any system of measurement.

(2) The ordering, buying, or selling of manufactured articles, such as tools, machines, or parts of machines, ordinarily known by or designated in terms of any other system of weight or measure.

(3) Any contract made before the 1st day of January, 1935.

(4) The survey or description of lands within the jurisdiction of the United States of America, or transactions in lands or real estate therein.

(5) The sale of goods, wares, or merchandise originally intended for any foreign country.

SEC. 4. After the 1st day of January, 1935, the terms "world yard" for the "meter," "world quart" for the "liter," and "world pound" for "five hundred grams" shall be recommended for international use and accepted as metric terms.

SEC. 5. All acts or parts of acts inconsistent herewith are hereby repealed but only in so far as they are inconsistent herewith; otherwise they shall remain and continue in full force and effect.

SEC. 6. Rules and regulations for the enforcement of this act shall be made and promulgated by the secretary

of commerce, who shall also take such steps as he may deem necessary to make this act effective.

RESOLUTIONS ON THE FREEDOM OF TEACHING

THE following resolutions on freedom of teaching have been adopted by unanimous vote of the Sigma Xi Club of Southern California, and ordered sent to SCIENCE and the Los Angeles papers for publication:

Resolved, that the Sigma Xi Club of Southern California views with amazement and concern the propaganda that is going on in certain parts of the country, having as its object the restriction of the freedom of teaching in science.

We would remind the thinking public:

(1) that our civil, religious, intellectual and economic progress has resulted very largely from this freedom within the schools, colleges and universities of the land. To attempt to take away this constitutional right is a return to the methods of the Middle Ages.

(2) of certain essential characteristics of the method of science:

(a) a sincere search for truth without reference to the effect of such truth upon previous opinion or belief.

(b) that any statement of the findings of science is in the nature of the case a statement of the balance of evidence and not a dogmatic assertion of finality. Even the "law" of gravity is subject to revision or restatement.

(c) that there is and can be no conflict between religion and science: to assert the contrary is to misunderstand the scope of both.

We urge all representatives of science in school, college or university:

(1) to indicate a love for zealous research after truth and loyalty to truth when found.

(2) to exemplify in their own attitude both the dignity of science and the proper restraint of the workman in science. Only so can we deserve the support of enlightened public opinion.

We hereby express our hearty approval of the American Association for the Advancement of Science in its efforts to assist in reaching a prompt, clear and just understanding in regard to the rights of teachers of science.

GEOLOGICAL SCIENCES AT PASADENA

THE California Institute of Technology is organizing a staff of instruction and research in geology and paleontology. Dr. John P. Buwalda, formerly professor of geology at Yale University and the University of California, and Dr. Chester Stock, of the University of California, will be in charge of the developments in these two fields of geologic science. Instruction in geology is already being given by Dr. Buwalda.

A research laboratory of seismology has been constructed by the institute and will be equipped by the Carnegie Institution of Washington. Investigations and advanced instruction will be carried on in it under a cooperative arrangement between the two institutions.

In the developments in geology, paleontology and seismology the California Institute will place emphasis primarily on graduate study and research, as has been done in its older science departments of physics, chemistry and mathematics. Provision has also been made, however, for a four-year course of undergraduate study.

Several teaching and research fellowships, both in geology and paleontology, are offered for the year 1926–27 and thereafter.

SCIENTIFIC NOTES AND NEWS

DR. GRAHAM LUSK, professor of physiology at the Cornell University Medical College and director of the Russell Sage Institute of Pathology, was the guest on February 15 at a dinner given for him at the Waldorf-Astoria, New York City, by 130 friends to celebrate his sixtieth birthday. The speakers were William J. Schieffelin, Dr. Frederic S. Lee, Dr. Russell H. Chittenden, Dr. W. H. Howell, Dr. A. B. Macallum, Dr. Elliot P. Joslin and Dr. Lusk.

THE twenty-fifth anniversary of Professor Edward L. Thorndike's connection with Teachers College, Columbia University, was celebrated on Friday, February 19, with a dinner at which about two hundred and fifty of Professor Thorndike's colleagues, former students and friends were present. Professor Eugene L. Smith presided, and there were speeches by Dean James E. Russell, Dr. Frederick P. Keppel, Dr. J. McKeen Cattell, Professor G. D. Strayer, President Henry Suzzallo, Dr. R. S. Woodworth, President Nicholas Murray Butler and Dr. Thorndike.

DR. MICHAEL I. PUPIN was the principal speaker at the fiftieth commemoration day exercises of the Johns Hopkins University on February 22. On the same day he was the guest of honor at a luncheon given by Dr. and Mrs. Frank J. Goodnow.

AT a meeting of the Royal Society of Medicine held on January 19 the following seven medical men were elected to the honorary fellowship of the society: Dr. William James Mayo and Dr. Charles Horace Mayo, of the Mayo Clinic, Rochester; Major-General Sir David Bruce, Sir Henry Morris, a former president of the society; Dr. Fritz de Quervain, professor of surgery and director of the surgical clinic, University of Berne; Dr. Camillo Golgi, emeritus professor of histology, Royal University of Pavia (whose subsequent death has been announced), and Dr. Karl F. J. Sudhoff, professor of the history of medicine, University of Leipzig.