On Wednesday morning a collection of papers on the theory of lubrication will be presented. Lieutenant Commander L. N. Linsley, U. S. N., will present the results of an investigation of critical bearing pressures which he made while taking graduate work at Johns Hopkins University. H. A. S. Howarth's paper on lubrication is a supplement to the paper he presented at the 1923 annual meeting. Louis Illmer's contribution on high-pressure bearing research completes the session.

As the early work in the development of management science was a product of the machine-shop under the leadership of Dr. Taylor, machine-shop men will undoubtedly be interested in Frederick W. Taylor's paper on shop management originally given to the society in 1903 and now presented again by Morris L. Cooke for further discussion. This will take place on Thursday morning, December 4.

On Thursday afternoon there will be two papers which treat of different phases of production control. George D. Babcock will state principles of production control which he has applied to the manufacture of tractors. Ralph E. Flanders will deal with the design, manufacture and production control of a standard machine. In his work Mr. Flanders has been dealing with the problem of reducing manufacturing overhead expense under conditions of fluctuating rates of production.

An innovation at the coming annual meeting is the insertion of two lectures, one on Tuesday afternoon at 4:30 and one on Thursday afternoon at 4:30. The Tuesday lecture will deal with an economic question of interest to engineers and the Thursday lecture will be an interesting presentation of scientific research also of interest to the engineering profession. The time for these two lectures has been set for 4:30 to permit all the members who have been attending the sessions previous to these lectures to be present.

## MEETING OF THE METRIC ASSOCIATION

The Metric Association will hold its annual meeting in Washington, D. C., on December 29 and 30. A program of special interest to manufacturers, merchants and educators is being arranged. George F. Kunz, president of the Metric Association, will preside. Among others scheduled to speak are Arthur E. Kennelly and Alexander McAdie, of Cambridge, Mass.; Theodore H. Miller, F. L. Roberts and Howard Richards, of New York; Charles L. Parsons, S. J. Macfarren and G. H. Paine, of the Columbia Section of the Metric Association, and representatives of the government departments interested. Experts in several industries are to hold conferences in connection with the meeting.

An educational exhibit will be on display during the meeting and also throughout the meeting of the American Association for the Advancement of Science. Modern methods of teaching metric weights and measures will be demonstrated and the educational booklets, rulers and other devices will be considered.

A "weights and measures" luncheon will be held on Monday, the twenty-ninth, at 1 p. m., at the New Willard Hotel. The convention will close with a metric dinner at the New Willard Hotel on Tuesday evening, December 30. Men and women are invited to take part in the entire program. Federal, state and municipal departments and all organizations interested in international standardization are requested to send representatives. Programs, metric literature, etc., may be secured from the Metric Association, New York City.

HOWARD RICHARDS, Secretary

## ACTIVITIES OF THE ILLINOIS GEOLOGICAL SURVEY

The Illinois Geological Survey has continued its usual investigations during the past summer, bearing on the occurrence of oil, the correlation and resources of its coal beds, systemic stratigraphy, geologic quadrangle mapping, and the paleobotany of the "coal measures," and in addition cooperated with the United States Geological Survey in an extensive topographic mapping program.

Some of the new features of the Illinois Geological Survey's program have included: (1) the detailed stratigraphy of the Silurian of northern Illinois by Professor T. E. Savage, of the University of Illinois; (2) the chemical study of the oil field waters of the state under the direction of Mr. Gail F. Moulton, formerly assistant professor of geology at the University of South Dakota and associate geologist of the U. S. Geological Survey; (3) laboratory sedimentation studies of the Chester series by Mr. J. E. Lamar, who has made a field study of the series and collected systematically a set of some 2,000 specimens; and (4) a field and laboratory investigation of the state's molding sand resources by Mr. Max Littlefield of the University of Iowa in cooperation with the foundry laboratory of the Engineering Experiment Station of the University of Illinois.

The generous appropriation of the last legislature for topographic mapping amounting to \$100,000 for the biennium, with an equal allotment from the Federal Survey, has greatly stimulated the mapping program, and it is anticipated that by the close of the biennium next June 30, some 4,500 square miles of additional territory will have been sketched, including the revision of the maps of Chicago and vicinity.