Bayliss married his colleague's sister, Gertrude E. Starling, in 1893.

When Schafer was called to Edinburgh and Starling was appointed to succeed him in 1899, Bayliss cast in his lot with his friend and brother in the department at University College. He became assistant, then assistant professor and finally professor of general physiology. Probably it was a very fortunate thing that Professor Bayliss was prevailed upon to enter the routine of teaching. Had he been allowed to continue in his own private laboratory, without any such demands shaping his interests, he doubtless would have made many important and critical experiments, but it is doubtful if "Principles" would ever have come from his pen. In 1910–11 during the illness of Professor Starling and again while he was engaged in war duties, 1915–19, Professor Bayliss acted as head of the department. For a time he was dean of the faculty of science. He was chairman of the Shock Committee of the Medical Research Council, a member of the Chemical Warfare Medical Committee and of the Research Committee of the Food Investigation Board. In 1903 he was elected fellow of the Royal Society and was a member of the council in 1913–15. He is well known as joint editor of *The Biochemical Journal* and just before his illness had assumed editorship of *Physiological Abstracts.*

Following the war, when men turned again to take up the threads of science for science sake, the recognition of Professor Bayliss came promptly. Among other honors received, the Copley Medal, which is the greatest distinction within the gift of the Royal Society, was bestowed on him in 1919, he was showered with honorary degrees and was knighted in 1922. Within the last few years he has published several books and monographs of note. The topics include: the nature of enzyme action, intravenous injection in wound-shock, the colloidal state in its medical and physiological aspects and the vaso-motor system, to name the more important. These volumes are based largely on research work carried out by himself and his colleagues. In all his writing there is exhibited a clearness of diction and a directness and fairness of judgment in reference to conflicting evidence on difficult problems that cause his books to be much sought in any library. He was the very embodiment of friendliness and cooperation. In his researches he concerned himself with what has been termed "the infinitely little" and in his personal relations he appreciated the untold value of "small things." His life and work exemplify the supreme effectiveness of that casual, quiet, simple and unassuming way of doing things that marked his manner.

STANFORD UNIVERSITY W. R. MILES

SCIENTIFIC EVENTS

MEETING OF THE AMERICAN SOCIETY OF MECHANICAL ENGINEERS

THE tentative program for the coming annual meeting of the American Society of Mechanical Engineers, to be held in New York from December 1 to 4, has been announced. The first day of the meeting has been set aside for council meeting, local sections conferences and technical committee meetings. The technical sessions start Tuesday morning, December 2, and will last through Thursday afternoon. While the program is well balanced in that it touches on all phases of mechanical engineering, it is noteworthy in the fact that there are several sessions with papers of importance and value to members of the society who are interested in the engineering problems of the machine shop.

On Tuesday morning the session devoted to research in machine design and operation will furnish the opportunity for the presentation of various methods of measuring hardness. J. O. Keller, the author of the paper, spent the summer in a series of investigations in which he made hardness measurements by the various known methods, tensile tests, machineability tests and magnetic analyses of pieces of the same material subjected to different heat treatments. His results will include a report of measurements by the Herbert pendulum hardness tester which is a comparatively novel device in this country. At the same session a research committee on metal springs will present a progress report. Although this committee has been organized for a short time it has set up a program and is ready to seek financial support for its research.

At the general session on Tuesday morning R. Eksergian will present a mathematical analysis of strength and proportions of wheels, wheel centers and hubs. This paper will bring a large amount of data to the designing engineers.

On Tuesday afternoon there will be a session devoted to general machine-shop practice with papers on the effect of inaccuracies of gear teeth on mechanical springs, and on ruling line standards by the application of light interference. The paper on inaccuracies in gear teeth was prepared as a thesis at Leland Stanford University by L. J. Franklin and Charles Smith. J. K. Wood, who wrote the paper on mechanical springs, is chairman of the special research committee on this subject and in the paper he presents the results of long experience in designing springs and gives four new formulas for this purpose. The last paper at the session by C. G. Peters and H. B. Lewis is a joint production of the Brown & Sharpe Manufacturing Co. and the Bureau of Standards.

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.