stars be confined to the region 20° or 25° north and south of the zenith.

Any inquiries regarding the work will be gladly answered by the U. S. Naval Observatory.

A SCHOOL OF MICROSCOPY

THE microscope is being used so generally now-a-days as an aid in many branches of science that a knowledge of its construction, accessories, manipulation and capabilities becomes imperative. The student in high school gets acquainted with it in biology classes, and in colleges it becomes a useful tool in the study of botany, physiology, mineralogy and chemistry.

Medical colleges use the microscope intensively in the demonstration of histology, bacteriology and pathology, and the instrument is indispensable in morphological and cytological research. There are many other fields in which the microscope is employed, besides the pleasure and entertainment afforded those who only enjoy it as a hobby.

The membership of the New York Microscopical Society, one of the affiliated societies of the New York Academy of Sciences, is made up of scientists, students of definite subjects and amateurs, some of whom have never had any regular instruction in microscopical technique and who have neither time nor opportunity to attend college courses to obtain the requisite information.

To meet this need, a School of Microscopy was founded in April of this year by four members of the New York Microscopical Society. Through the courtesy of Bausch & Lomb Optical Co., the free use of their rooms in the Pershing Square Building, Park Avenue and 42nd Street, New York, was granted, together with unlimited cooperation in the use of microscopes of various designs, microtomes, projection apparatus, photomicrographic outfits and all the accessories that are explained and demonstrated before the classes in the school.

Sessions were at first held from 5 to 6:30 on Wednesday afternoon and the first course of ten lessons was successfully given at that hour. To meet the demand for a night class, another group meets at 8 o'clock Wednesday evenings, and the attendance shows this to be the more popular session.

The course at present consists of three demonstrations on the microscope, its design, accessories, manipulation; this instruction is given by John H. Fisher, a physicist residing at Hollis, L. I. Mr. Fisher was formerly with the Bureau of Standards at Washington and is an inventor and expert on fine measurements and accurate measuring instruments.

Phillip O. Gravelle, of South Orange, N. J., known for his work in photomicrography and color photography, has prepared a course of three lectures, in which he uses the latest developments of visual instruction, graphically presenting the methods and results of photography with microscope and camera. Many of his slides were made by utilizing a ribbon filament lamp of his own invention.

For the technical instruction in the preparation of material, use of the microtome, imbedding, staining and mounting permanent slides, the school has enlisted the aid of Dr. Margaret M. Hoskins, member of the Society of Anatomists and of the staff of New York University School of Dentistry. Dr. Hoskins conducts the class through four sessions, including a lecture and demonstration on the study of bacteria and blood with the microscope.

The originator of the project is Charles P. Titus, of East Orange, N. J., former president of the New York Microscopical Society and of the New Jersey Chemical Society. He will act as director of the school, and with E. H. Anthes, assistant manager of the Bausch & Lomb Optical Co., will supervise its activities. A moderate fee is charged for the course, and the proceeds are devoted to the salaries of the instructors and the purchase of supplies and equipment, with the hope that in time a laboratory may be established where students may have the benefit of more extensive personal instruction.

Students may join the classes at any time; letters of inquiry may be directed to the School of Microscopy, Room 1500, Pershing Square Building, New York City.

PROGRAMS IN ENGINEERING AND SOCIAL SCIENCE AT THE PHILADELPHIA MEETING OF THE AMERICAN ASSOCIATION

PAPERS before the engineering section have been arranged as follows:

1. The contribution that has been made by pure science to the advancement of engineering and industry.

Astronomy—DR. FRANK SCHLESINGER, director of Yale University Observatory.

Chemistry—DR. CHARLES H. HERTY, president, Synthetic Organic Chemical Manufacturers' Association.

Economics—DR. JOSEPH H. WILLITTS, head of the department of industry, Wharton School of Finance and Commerce, University of Pennsylvania.

Geology—DR. HEINRICH RIES, professor of general and economic geology, Cornell University.

Mathematics—DR. G. A. BLISS, professor of mathematics, University of Chicago.

Medical Science—DR. RANDLE C. ROSENBERGER, professor of preventive medicine and bacteriology, Jefferson Medical College.

Physics—DR. R. A. MILLIKAN, director of the Norman