each containing 5 mg of tubercle bacilli. Each tube contains thirty doses, which, at the rate of three doses by mouth daily, suffice for ten days' treatment. One entire story of the building is reserved for these operations, this story being completely separated from the other parts of the building, in which are the laboratories of Messieurs Nêgre, Valtis and Boquet, the laboratories for the preparation of tuberculin, the anatomic laboratories, the laboratories for experimental physiology, chemistry and others. A *bacillothèque* (filing cabinet) contains all the strains of bacilli—human, bovine, avian and the like. The B C G strain is kept in a special bath, of which only Mr. Guérin has the key. In other cabinets are filed the records pertaining to each request for vaccine, together with the responses announcing the results secured, so that absolutely correct statistics are readily available. In the basement are the necropsy rooms and the cages for 6,000 animals (chiefly guinea-pigs) used for experiments. The Pasteur Institute uses 8,000 guinea-pigs annually.

THE X-RAY UNIT OF THE HOSPITAL OF THE UNIVERSITY OF MICHIGAN

AFTER four months of remodeling and installing new equipment, the University of Michigan Hospital, which now handles a volume of x-ray work second only to the Mayo Clinic in Minnesota, opened recently its new x-ray department, which is said to be unexcelled by any similar installation in the country.

The new unit is featured by a novel plan of rooms and apparatus which stresses convenience and privacy for patients and the quick processing of the x-ray films. From waiting rooms the patients are directed to private dressing rooms from which they pass as called by private corridors to the proper department. A complete "traffic system" of lights, which indicate what rooms are in use to all offices of physicians and the directing staff, makes possible quick routing of patients, so that routine x-ray examinations may be made at the rate of twenty an hour.

Rapid development of films to aid physicians to make an early diagnosis is made possible by a modern dark room, provided with dry air from which all moisture has been chilled out by special refrigerating machinery. Once in operation for the day, the room need never be lighted or work stopped, the completed films being passed out through a double-doored, light-tight well for final rinsing and drying From the drying rack they may be taken directly to the physicians' offices, each of which has its own viewing apparatus, so that a report may be given in a fraction of the usual time needed.

Among other details of the equipment are lead lined rooms which confine the rays of high voltage treatment apparatus, with lead glass windows through which the doctor or technician may observe the patient, a room in which x-ray films of the chest of bed-ridden patients may be taken through the bed by apparatus beneath the floor, special equipment for locating foreign bodies in the eye, and automatic apparatus, which, as soon as one patient's films are made, resets itself for the second stereoscopic exposing. Memorializing Dr. Preston M. Hickey, for many years head of the department, is a staff library which will contain publications on roentgenology, given by Dr. Hickey's friends, former associates and assistants, and a complete set of special x-ray studies of normal and diseased parts for reference. Classrooms, and research laboratories for medical students are also provided within the department. The memorial bas-relief of Dr. Hickey, presented this last year by the American Roentgen Ray Society, has been hung in the special conference room set aside for the members of the hospital staff who wish to review the examination of their patients with members of the roentgenology staff.

EXHIBIT OF THE PHILADELPHIA MINERALOGICAL SOCIETY

THE annual exhibit of the Philadelphia Mineralogical Society opened on April 17 in the Free Natural History Museum of the Academy of Natural Sciences. All the specimens are shown by members of a group of amateur mineralogists whose hobby is collecting minerals in near-by quarries, mines, valleys and hills, or wherever rocks are exposed.

The exhibit this year, which will be open free to the public until April 25, is confined entirely to minerals collected within a day's journey of Philadelphia in Pennsylvania and New Jersey—most of them rare and unusual crystals incidental to the mining and quarrying industry. For the granites, gneisses and other metamorphic rocks of the neighborhood frequently contain veins of interesting minerals. Over 100 minerals, or nearly ten per cent. of all those known to science, have been found within the city limits of Philadelphia.

Two groups of quartz crystals from Bridgeport, Pennsylvania, are exhibited by Mr. A. Fleming, Jr., and calcite crystals from Howellville, by Mr. E. H. Ceinkowski. Showy blue cyanite and garnet from Prospect Park, Delaware County, is exhibited by Mr. C. H. Jackson. A rather extensive series of local minerals is shown by Mr. Harry W. Trudell, director of the Frankford Institute for Medical Research, whose collection is perhaps the finest private one in Philadelphia.

The rock crystal and crystal ball are exhibited by Mr. Morrell G. Biernbaum. Petrified wood from Lindenwold, N. J., and Newton, in Bucks County, have

been loaned for the exhibit by Mr. W. H. Flack. Brilliant pyrite, magnetite, sphalerite and galena are mute evidence of the iron, lead and zinc mining near Phoenixville many years ago. A series of especial interest to beginners and boy scouts is that of "fifty minerals which can be found at 10 localities near Philadelphia." Other exhibitors are Messrs. J. S. Frankenfield, George Petersen, E. A. Groth, William Knabe and Horace J. Hallowell.

THE AMERICAN MEDICAL ASSOCIATION

THE annual meeting of the American Medical Association will be held at New Orleans, opening on Tuesday evening, May 10, when Dr. E. H. Cary, professor of ophthalmology and otolaryngology at the medical school of Baylor University and dean emeritus of the school, will be installed as president. He succeeds Dr. E. Starr Judd, of the Mayo Clinic, Rochester, Minnesota. The president's reception will be on Thursday evening, May 12.

The meetings of the scientific sections will begin on Wednesday morning, May 11, and will continue through Friday, May 13. These are as follows: Practice of Medicine and Diseases of Children; Surgery, General and Abdominal; and Obstetrics, Gynecology and Abdominal Surgery; Ophthalmology; and Laryngology, Otology and Rhinology; Pharmacology and Therapeutics; and Pathology and Physiology; Nervous and Mental Diseases; and Orthopedic Surgery; Preventive and Industrial Medicine and Public Health; and Gastro-Enterology and Proctology; Dermatology and Syphilology; and Urology; Radiology.

The House of Delegates will convene for its first meeting at 10 A. M. on Monday, May 9. All meetings of the House of Delegates will be held at the Roosevelt Hotel.

The clinical lecture program will be given on Monday afternoon, May 9, and on Tuesday morning and afternoon, May 10, at the Municipal Auditorium. Topics to be discussed are of important practical interest to the rank and file of the profession. This program will include the following lectures:

Drug Addiction—A World-Wide Problem, P. Wolff, Berlin, Germany.

Drug Addiction in the United States, Walter L. Treadway, Washington, D. C.

Cancer of the Gastro-Intestinal Tract, J. Shelton Horsley, Richmond.

The Changing Diet of the American People, Lafayette B. Mendel, New Haven.

The Diagnosis of Early Pulmonary Tuberculosis, Lawrason Brown, Saranac Lake.

Disturbances of Peripheral Circulation, Arthur W. Allen, Boston.

Appendicitis, H. A. Royster, Raleigh, N. C.

Early Diagnosis of Poliomyelitis, Lewis J. Pollock, Chicago.

Use of Convalescent Serum in Poliomyelitis, William H. Park, New York.

Orthopedic Treatment of Poliomyelitis, Willis C. Campbell, Memphis, Tennessee.

Motion Picture on Cancer, Francis Carter Wood, New York.

In addition to Dr. P. Wolff, secretary of the Narcotic Committee of the League of Nations, secretary of the German Council of Therapy and editor of the leading medical publication of Germany, who will participate in the clinical lecture program given above, Sir Arthur Newsholme, of Birmingham, England, known for his work in the field of public health, will be one of the participants in a joint symposium of the Section on Practice of Medicine and the Section on Preventive and Industrial Medicine and Public Health. Sir Arthur's topic will be "The Relation of Private Practice to Preventive Medicine in Europe." Professor N. Krasnogorski, of Leningrad, will contribute a paper on "Conditioned Reflexes in Psychopathology of Childhood" to the program of the Section on Diseases of Children.

FELLOWSHIP AWARDS IN THE SCIENCES AT YALE UNIVERSITY

THE Yale University Graduate School announces the award of 178 fellowships and scholarships, the recipients selected from more than one thousand applicants. Thirty-seven have been awarded research fellowships. As in former years these permit of an international exchange of scholars. From Göttingen will come Dr. Max F. Düring to work with Professor Oystein Ore on algebraic numbers, while Mr. Milton S. Plesset, of Pittsburgh, a candidate for the doctorate in physics at Yale this June, will go to Copenhagen to carry out further research under Professor Bohr. Two European zoologists, Dr. Paul A. Weiss, of Vienna, and Dr. Oscar E. Schotte, of Geneva, will continue research begun this year with Professor Ross G. Harrison in the Osborn Zoological Laboratory.

Dr. George Scheff, of Pecs, Hungary, has been offered a renewal of the Alexander Brown Coxe fellowship to continue his bacteriological research with Professor Leo Rettger, while Dr. Maximilian Steiner, of Vienna, has been awarded a Seessel fellowship to work with Professor George E. Nichols at the Osborn Botanical Laboratory on the chemical nature of changes in the osmotic pressure of plants.

Dimitri P. Krynine, a Russian engineer, known for his work in the field of soil mechanics, has been awarded a Sterling fellowship to pursue his research on the permeability of soils.

Ebbe C. Hoff, of Lindsborg, Kansas, a candidate for the Ph.D. at Oxford this year, has been awarded a