

camp of wooden huts with straw thatches, including a laboratory and clinic, was built at a native village in the neighborhood. This formed the base of operations for the first year while Dr. Fischer toured the native districts, accompanied by a government courier, in search of patients.

In the autumn of 1922 the party crossed into the Belgian Congo, on the invitation of the Governor-General. The disease is more widespread in the Congo, and a profitable year was spent at and around Elisabethville.

It may be recalled that the chief epidemics caused by trypanosome in Tropical Africa are sleeping sickness in men and nagana in cattle. Trypanosome are small flagellates, in the language of biology, which live in the blood of infested organisms. They are conveyed by the sting of the glossines, a family of stinging flies which is only found in Africa. The trypanosome undergo a series of transformations inside the insect. They stand in the same relation to the glossines or tsetse flies as the malaria parasites to the anopheles.

An all-important matter to the African stock-farmer is that he should be able to move his cattle across the so-called "fly belts" to and from tsetse-free areas with the knowledge that they will not fall sick on the road if bitten by the fly. Dr. Kleine found that injections of 205 did not act as a certain preventive.

On the other hand, there was a remarkable difference between cattle which had received treatment and cattle which had not. While the latter wasted away and died, the former remained in good condition and could be used for slaughter, even if the tsetse fly had introduced parasites into their blood. A far greater degree of success was obtained in the direction of sleeping sickness. In Rhodesia and the Congo 180 native patients suffering from various stages of the disorder received injections of Bayer 205. In the early stages of the disease a striking improvement was shown after a few injections had been made. The swelling of the glands quickly subsided and the old feeling of health and strength began to return. Most important of all, the trypanosome disappeared from the blood and were proved in the majority of cases, under careful examination of several months' duration, never to have returned.

### THE FRENCH PHYSICAL SOCIETY

THE Société Française de Physique celebrated the fiftieth anniversary of its foundation in December. From an article in *Nature* the following notes are taken.

The exhibition, which has hitherto been held by the society at Easter, was this year combined with a wireless exhibition. It was on an unusually large

scale, the Grand Palais in the Champs Élysées, in which the annual Automobile Show is held, being used for the purpose. The exhibition was characterized by many demonstrations, more or less popular, which were very attractive.

The anniversary lectures were given at the Sorbonne, the first on December 8, by Colonel Robert, on the relations of physical and technical aeronautics.

On December 10, an attraction of another kind presented itself in the general meeting of the International Union of Physics. The chair was taken by M. Brillouin with Professor H. Abraham as general secretary. The business was largely formal, the main item being the adoption of the statutes. After some discussion as to whether the value of the franc for the contributing countries should be taken in the French or Swiss currency, the former was adopted, notwithstanding the reduction in the contributions by so doing. The date of the next meeting of the union was fixed for the year 1925, the normal three years' interval being reduced, and the question of an international congress will then be decided.

On Monday evening a lecture was given by Professor H. A. Lorentz on the old and new mechanics. The motion resulting from the impact of two balls was considered, and generalized equations were obtained which were applicable to two observers in relative motion. This was followed by the gravitational deflection of light, and a discussion of the quantum theory and kindred subjects.

On December 11, Lord Rayleigh gave an account of his investigations on iridescent colors in nature. He dealt successively with the colors observed in light reflected from potassium chlorate crystals, mother-of-pearl, Labrador felspar and scarabee.

At the conclusion of the lecture Professor Volterra presented, on behalf of the Accademia dei Lincei, two volumes of the collected works of Volta. Other volumes are in preparation.

December 12 was marked by a banquet at which the delegates were royally entertained. The chair was occupied by the under secretary of state for public instruction. M. Picard (president of the Société Française de Physique) welcomed the foreign delegates, and responses were made by Professor Volterra, Professor Lorentz, Lord Rayleigh, Professor Störmer and Professor Knudsen.

The culminating point in the celebrations came on Thursday afternoon, when the chair was taken by the president of the republic in the large amphitheater of the Sorbonne. There were also present the ministers of commerce, of public instruction and of public works. After speeches by M. Picard and M. Brylinski (president of the French electrotechnical committee), Professor Lorentz presented the addresses which had been brought by the delegates. After this

part of the ceremony came a speech by M. Bérard (minister of public instruction), followed by remarks by the president of the republic. Professor C. Fabry then lectured on the domain of radiations.

Lectures by Professor Störmer on the aurora borealis, on December 14, and by Professor Knudsen on the mechanism of evaporation and condensation, on Saturday, brought the celebration to a close.

### REPRINTS FROM ANNUAL TABLES

THE Secretary-General of Annual Tables announces that the following list of reprints from Volume "IV" is available:

Spectroscopy, by M. L. Brünighaus. Preface by A. Fowler, F.R.S.

Electricity, magnetism, conductivity of electrolytes, electromotive forces, by MM. Malapert, v. Weisse, R. E. Slade and G. L. Higgen. Preface by F. B. Jewett.

Radioactivity, electronics, ionization of gases, etc., by MM. J. Saphores and F. Bourion. Preface by Sir E. Rutherford, F.R.S.

Crystallography and mineralogy, by L. J. Spencer. Preface by Sir Henry A. Miers, F.R.S.

Biology, by E. Terroine and H. Colin. Preface by Jacques Loeb.

Engineering and metallurgy, by L. Descroix. Preface by G. K. Burgess.

Colloids, by E. Rebière. Preface by Jacques Duclaux.

These reprints contain all the data for the subjects indicated which are found in Volume IV of the Annual Tables, which volume covers the literature of the world for the years 1913 to 1916 inclusive. Specialists having occasion to refer frequently to data in the fields covered by any of these reprints will find them invaluable for ready reference. Members of any of the organizations listed below are entitled to a 50 per cent. discount on the regular prices:

National Academy of Sciences.  
Philosophical Society of Washington.  
American Philosophical Society.  
American Academy of Arts and Sciences.  
American Association for the Advancement of Science.  
American Institute of Chemical Engineers.  
American Institute of Electrical Engineers.  
American Electrochemical Society.  
American Chemical Society.  
American Ceramic Society.  
American Society of Civil Engineers.  
American Society of Mechanical Engineers.  
American Society for Testing Materials.  
American Institute of Mining and Metallurgical Engineers.

### PUBLIC LECTURES OF THE HARVARD MEDICAL SCHOOL

A SERIES of lectures under the auspices of the Harvard Medical School opened on Sunday afternoon,

January 6, at four o'clock, and will be continued until May. The lectures are as follows:

January 6—*Present-day conceptions of mental disorder*: DR. MACFIE CAMPBELL.

January 13—*Some of the causes of bladder trouble*: DR. J. DELLINGER BARNEY. (To men only.)

January 20—*Smallpox and vaccination*: DR. BENJAMIN WHITE.

January 27—*Conservation of eyesight*: DR. GEORGE S. DERBY.

February 3—*What can we do to prevent heart failure?* DR. WILLIAM H. ROBEY.

February 10—*On the various types of thyroid disease and their significance to the individual and to the community*: DR. JAMES H. MEANS.

February 17—*The relations of exercise to health*: DR. WILLIAM H. GEER.

February 24—*The contagious diseases of the skin and possible measures to avoid them*: DR. CHARLES J. WHITE.

March 2—*Pain and anesthetics*: DR. CHARLES A. BRACKETT.

March 9—*Diabetes and insulin*: DR. ELLIOTT P. JOSLIN.

March 16—*Blood*: DR. LAWRENCE J. HENDERSON.

March 23—*Some surgical conditions common among children*: DR. JAMES S. STONE.

March 30—*Successes and failures of surgery*: DR. DAVID CHEEVER.

April 6—*Modern obstetrics*: DR. FRANKLIN S. NEWELL. (To women only.)

April 13—*The question of the specific treatment in tuberculosis*: DR. HANS ZINSSER.

April 27—*Catarrh*: DR. HARRIS P. MOSHER.

May 4—*Syphilis*: DR. GEORGE A. DIX.

### THE AMERICAN PALEONTOLOGICAL SOCIETY

THE fifteenth annual meeting of the Paleontological Society held at Washington, D. C., December 27–29, 1923, was attended by 60 members and a number of visitors. Eleven new members and three foreign correspondents were elected, making a total membership list of 239.

The address of the retiring president, Dr. T. Wayland Vaughan, on "Criteria and status of correlation and classification of Tertiary deposits" was delivered in joint session with the Geological Society of America as were also thirteen papers on stratigraphic geology. Thirteen papers on the various branches of paleontology were presented before the society, but the main feature of the meeting was a "Symposium on the correlation of the Tertiary formations of southeastern North America, Central America and the West Indies with the Tertiary formations of Europe," in which eleven members of the society took part.

The officers elected for 1924 were as follows:

*President*, E. W. Berry, Baltimore, Maryland; *Vice-presidents*, E. H. Barbour, Lincoln, Nebraska, Frank