SCIENTIFIC PROCEEDINGS.

ABSTRACTS OF REPORTS.[1]

First meeting.[2]

Laboratory of Physiological Chemistry of Columbia University, at the College of Physicians and Surgeons. February 25, 1903.

1. **"An experiment to show the difference in effect between the simple cutting of the cervical sympathetic and the removal of the superior ganglion,"** with demonstrations: **S. J. MELTZER.**

The author presented a rabbit in which the cervical sympathetic had been cut on one side, and the superior ganglion had been removed on the other side. Both pupils were of the same size. About two hours before the demonstration one hind leg was tightly constricted and 1 cc. of adrenalin solution injected into it (peripheral to the ligature). On removal of the ligature the pupil on the side from which the ganglion had been excised became greatly dilated, while the pupil on the other side remained unaffected.

2. **"Differentiation of monkey blood from human blood by the precipitin serum test,"** with demonstrations: **JAMES EWING.**

It has been known for some time that the serum of an animal immunized against a particular alien blood will precipitate proteids, not only in the particular blood used in the immunization, but also, to a lesser degree, in the blood serum of closely related animals. Thus the serum of a rabbit immunized against ox blood will precipitate proteids not only in ox blood but also in sheep and goat blood, etc. It is only when the anti-serum is diluted to a considerable degree that the precipitate forms only in the particular blood used in the immunization. This dilution, as a rule, must be as high as 1–50. In a series of tests with various human-

[1] The authors of the reports have furnished the abstracts. The secretary has made only a few abbreviations and minor alterations in them.

[2] Reprinted from *Science*, 1903, xvii, p. 468 and *American Medicine*, 1903, v, p. 707.

ized rabbit sera, it was found that monkey blood, which is very closely related to human blood, can be distinguished from human blood if the humanized rabbit serum is diluted in the proportion of 1–100 before it is added to the blood to be tested. In this dilution very active humanized rabbit sera fail to cause precipitates in the blood of lower monkeys (baboon, rhesus, and Java), while still causing flocculent precipitates within one to two hours in human blood.

The serum used by the author in this demonstration was obtained from a chicken which had received five injections each of 10 c.c. of human placenta blood. This serum proved to be much more selective than the ordinary humanized rabbit serum. The chicken serum in various dilutions up to 1–100 was added to specimens of human and monkey serum in dilutions also of 1–100. It produced turbidities in all the specimens of human blood, but failed entirely to affect the monkey blood. Finally, the chicken serum was added in a dilution 1–5 to specimens of both human and monkey blood. In the human blood a milky ring formed instantly at the line of junction of the test serum with the human serum, and a flocculent precipitate formed in fifteen minutes, while in the monkey serum no change whatever could be observed.

3. "**An improved cage for metabolism experiments,**" with demonstration: **WILLIAM J. GIES.**

A cage specially designed for experiments on dogs was shown. The parts are so adjusted as to favor the collection and separation of feces, urine and hair. The improvements consist mainly of mechanical devices suggested by experimental experiences of the past few years in metabolism work, all of which are designed to ensure quantitative accuracy as well as comparative convenience in the collection of excreta.

4. "**Properties of 'Bence-Jones' body,'**" with demonstrations: **WILLIAM J. GIES.**

Through the kindness of Dr. Meltzer a patient's urine containing this substance had been placed at the author's disposal for chemical study. Some of the results of this examination were presented and various properties of the body demonstrated. Special attention was drawn to a test of Boston's new method of detecting "Bence-Jones' body" in the urine.