

# SCIENTIFIC PROCEEDINGS

## ABSTRACTS OF COMMUNICATIONS.

### Eighty-fourth meeting.

*Zoological Laboratory, Columbia University, May 16, 1917.*

*President Gies in the chair.*

88 (1266)

#### **The calcium and magnesium metabolism of the dog during inanition.**

By **MAURICE H. GIVENS** (by invitation).

*[From the Sheffield Laboratory of Physiological Chemistry, Yale University, New Haven.]*

During starvation for sixty days a well-nourished female dog was reduced in body weight from 12 to 5.8 kg. At the end of the first seven days the daily urinary calcium had dropped to one-eleventh of the original excretion, that is from 43 to 4 mgm. CaO per day, a level from which there was hardly any deviation during the remaining days.

The urinary magnesium excretion dropped very gradually, so that on the last day of the fast it was about half of the initial value. It diminished with the decrease in the dog's weight and in proportion to the nitrogen eliminated. Presumably the dog's magnesium excretion was correlated with the catabolism of the muscular tissue.

The fecal excretion of lime during the starvation was greater than the urinary, while the magnesium in the feces, for the period, was less than that of the urine.

Studies on realimentation with diets low in calcium are in progress.