

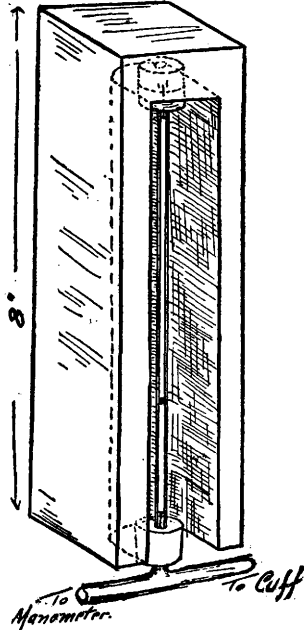
19 (544)

**A blood pressure apparatus with pith-ball attachment  
indicating diastolic pressure.**

By **NATHANAEL FEDDE.**

[From the Laboratory of Physiology of the Cornell University Medical College.]

Of the many factors governing blood pressure, the most important, namely the force of the heart beat, receives least attention. A knowledge of the systolic pressure is of value in warning of certain dangers, but gives no clue as to the amount of work the heart does. In order to estimate this we must know the difference between the pressure during the heart beats and that in the intervals. The maximum pressure is easily ascertained by any one of the numerous sphygmomanometers. Only a few have means, in any way satisfactory, for determining diastolic pressure, and these are prohibitive in price and of tremendous bulk. To overcome these obstacles we have devised a small instrument that can be attached to any sphygmomanometer. This consists in an air chamber communicating by means of a glass tube containing a pith-ball with the tube leading from cuff to manometer. Any increase of pressure in the cuff is equalized in the chamber by a rush of air passing the pith-ball and moving it. With a steady slow exhaust of air the ball moves exactly as the point of Erlanger's lever, but without the fling. An average pulse throws Erlanger's lever about 3 cm., while the pith-ball flies about three times that distance. The movements of the ball are interpreted just as the movements of the lever in Erlanger's instrument. That point of pressure is read at which the oscillations begin to fall off from the maximum.



20 (545)

**Some desirable results following water drinking with meals.**By **P. B. HAWK.**

[*From the Laboratory of Physiological Chemistry of the University of Illinois.*]

In the continuation of our studies on the influence of water drinking at meal time, data have recently been collected as to the influence of this factor upon some of the activities of the gastro-intestinal tract. Particular attention has been given to the stimulation of gastric secretion, the activity of the pancreatic function, and to the course of intestinal putrefaction. As regards the stimulation of gastric secretion it has been found that the stimulation is directly proportional to the volume of water ingested. The activity of the pancreatic function measured by the fecal amylase (Wohlgemuth's method) was found to be increased during the water period. At the same time intestinal putrefaction, as measured by the indican content of the urine (Ellinger's method) was decreased. Absorption was also facilitated and the excretion of fecal bacteria lowered when large volumes of water were ingested at meal time.

21 (546)

**Metabolism after hypophysectomy.**By **C. G. L. WOLF** and **E. SACHS.**

[*From the Department of Chemistry, Cornell University Medical College, New York City.*]

Three out of a series of respiration experiments on sixteen dogs, in which a part or the whole of the hypophysis was removed were reported.

They represented: (1) Extirpation of part of the anterior lobe and all of the posterior lobe. (2) Removal of the anterior lobe, leaving the pars intermedia and the posterior lobe. (3) Complete hypophysectomy.

The amount of gland destruction was determined by serial sections of the brain after the autopsy of the animals. Control experiments were made to determine the effect of the operative