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"peptone" rabbit (1,730 gms.) received only 100 c.c. of water (at  $41^{\circ}$  C.). The dextrose rabbit exhibited a loss of 0.6° C. in one half hour, the control rabbit no loss of temperature.

It is concluded that dextrose given by mouth under suitable conditions exhibits a decided antipyretic action, due to an increase in the heat elimination. The inference that the carbohydrate metabolism may play an important rôle in the action of antipyretic substances is being submitted to experimental inquiry.

# 77 (1452)

#### Concerning the effect of prostate feeding on tadpoles.

## By DAVID I. MACHT.

#### [From the Johns Hopkins University, Baltimore, Md.]

Gudernatsch was the first to call attention to the remarkable influence of the feeding of thyroid and thymus glands on frogs' larvæ. That observer noted that the thyroid causes a dwarfing or shrinkage of the growth and size of tadpoles, and at the same time very rapidly hastens their metamorphosis into frogs, while the thymus, on the other hand, causes giant tadpoles but inhibits their metamorphosis. Gudernatsch and other observers have also studied the effect of feeding of other organs and glands on the development of frogs' larvæ. As far as the present author has been able to ascertain, however, no experiments concerning the feeding of *prostate gland* to tadpoles are on record. The present author, in connection with a physiological and pharmacological study of prostatic extracts, conducted a series of experiments in feeding tadpoles with desiccated prostatic substance (Armour). The results are so interesting that it is deemed desirable to make a preliminary announcement on the subject in this place.

Prostate gland was fed to tadpoles of several species of frogs and it was noted that like the thyroid, the feeding of prostate substance tended to *hasten* the transformation of the larvæ into frogs. Such an effect was occasionally noted after administration of the gland substance for three or four days, and generally was distinctly noticeable after a period of from ten to fourteen days. Unlike the effects of thyroid feeding, the feeding of prostatic substance while hastening metamorphosis did not produce much shrinkage in the size of the tadpoles. Indeed, it very often seemed to promote the growth of the tadpoles to a greater degree than was noted in the control animals. It was further noted, that prostatic substance was very much less toxic to the larvæ than was thyroid substance, so that the tadpoles could be fed on the prostate continuously without being killed. All kinds of control experiments with various glands and other tissues were made and, as a result of these, it was definitely established that the interesting effect on the metamorphosis of tadpoles was not produced by any other tissue except the thyroid and the prostate. A more extensive study on the feeding of prostatic substances of various animals to tadpoles, rats, and other animals is in progress and will be reported in due time in the *Journal of Urology*.

## 78 (1453)

## Non-protein sulphur of the blood: Its determination, its fractionation, and its clinical significance.

### By MAX KAHN.

#### [From the Department of Laboratories, Beth Israel Hospital.]

Sodium citrate was used as anticoagulant. The protein of the plasma was precipitated by acetone—free methyl alcohol and zinc chloride (c.p.). The total sulphur was determined by oxidation with potassium chlorate and precipitation with barium chloride. The total sulphate was estimated by a method similar to the one of Vansteenberghe and Bauzil. The neutral sulphur was computed by subtracting the total sulphate from the total sulphur.

Studies were made on the blood of patients suffering with kidney, liver and malignant disease as well as those suffering with chronic infections.