ous. We have not, however, been able to produce any illness in cats or a monkey by feeding them with placental extract. It is a reasonable explanation that in the country districts of Jamaica, where most of the reported cases of akee poisoning have occurred, akees that have fallen to the ground before ripening and those taken immature from the tree have not had the small seeds removed before eating. It is significant that many of the reported cases of akee poisoning have occurred in children, and that the "soup" made by boiling akees with various vegetables has a poisonous quality.

Although there can be no doubt that some of the cases of the vomiting sickness of Jamaica are caused by akee poisoning, the proportion of such cases in any particular time or locality can naturally not be determined without specific investigation.

Further experiments on the nature and action of the akee poison are in progress.

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## Effect of Experimental Hyperparathyroidism on the Incisor of the Rat.*

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The microscopic anatomy of the incisors was studied in 2 groups of rats:

A. 29 rats that were given 1 to 15 injections of parathyroid hormone. Doses varied from 10 to 150 units. Weight: 85-145 gm.
B. 7 controls from same colony.

Significant alterations were observed only in Group A: 1. Enamel hypoplasia was found to be formed at the time of the first injection in 5 animals. 2. The alveolar bone showed an abnormal increase in osteoclasts in 14 and a fibrous change of the bone marrow in 3 of the animals that were given 3 or more injections of parathyroid hormone. 3. The principal changes were found in the dentin. Each experimental animal showed a primary hypocalcified stripe in the

* The preparation of a portion of the hormone used in this report was aided by a grant from the Committee on Scientific Research of the American Medical Association to W. R. T. and by a supply of parathormone to F. A. McJ. from Lilly & Company.

dentin that was being calcified during the immediate effect of the first injection and a secondary hypercalcified stripe in the dentin that was being calcified subsequently. The extent of the secondary stripe varied with the number and unitage of the doses injected and the duration of the experiment.

Two animals that were given 12 daily injections of 10 units each of parathyroid hormone showed a normal histologic picture.

The absence of reaction in the 3 animals that were given inactivated hormone preparation gives conclusive proof that the effects observed were due to the parathyroid hormone and not to any foreign protein impurities.

It is believed that the experimental pattern in the dentin represents its response to the changes in the calcium and phosphorous metabolism induced by the injections of the parathyroid hormone. The dentin reaction can be explained best by the theory that the parathyroid hormone controls a fraction of the serum calcium. The findings suggest the feasibility of a method of standardization of parathyroid hormone based on the changes shown to occur in the dentin.

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## A Method for the Assay of Commercial Gastric Mucin.

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Following the introduction by Fogelson[1] of gastric mucin therapy for gastro-duodenal ulcerative disease, a method for the assay of commercial preparations became desirable.

The commercial gastric mucin is prepared by following the customary procedure for commercial pepsin, in which the mucin dough is separated from the pepsin by precipitation at its iso-electric point. It is then purified by repeated washing with 70% alcohol,[2] mixed with required base, and diluted with peptone to decrease the viscosity to a practical state for administration to patients. Although it is the opinion of Hurst[3] that "mucus differs from other proteins in the

[1] Fogelson, S. J., *J. Am. Med. Assn.*, 1931, **96**, 673.

[2] Ivy, A. C., and Jones, K. K., PROC. SOC. EXP. BIOL. AND MED., 1931, **29**, 218.

[3] Hurst, A. F., *Brit. Med. J.*, 1933, **3784**, 89.