

The gift, together with the testamentary disposition of assets to be added, will give the new foundation properties and collections valued at \$100,000. Dr.

Hewett has been director of the school since 1907 and president of its executive board since 1930; he has also been director of the museum.

DISCUSSION

THE STABILITY OF THIAMIN IN DEHYDRATED PORK

THAT thiamin, being heat labile, is partially destroyed during the cooking or processing of foodstuffs has been shown by a number of investigators. When foods are prepared for immediate consumption such losses presumably measure the total decrease in thiamin content. However, foods which must be stored at warehouse or dock temperatures (which may range up to 130° F.) for long periods of time may undergo further reductions in vitamin content. With certain vitamin-rich foods, these storage losses may be quite significant.

Marked decreases in the thiamin content of some dehydrated foodstuffs have been noted in studies of vitamin retentions during storage. Some other foods appeared to be quite stable under the same conditions. This led to an investigation of a possible stabilizing effect on thiamin by these latter foods. Experimentation demonstrated that dehydrated pork, which shows little retention of thiamin after several weeks' storage at 120° F., may be stabilized with respect to thiamin to a great extent by the inclusion of a mixture consisting largely of cereals, milk, tomato paste and bone-meal.¹

This stabilizing action was first noted during storage studies of a pet food containing meat and meat by-products along with approximately 33 per cent. of the aforementioned mixture. When cooked and dehydrated, such a product retained most of its thiamin for several weeks at 120° F., a temperature known to cause severe destruction of thiamin in dehydrated meats or eggs. That the stabilization was due to the influence of constituents of the cereal-milk-bone mixture has been demonstrated by preparing and storing two samples of dehydrated pork (6 per cent. moisture) from one lot of well-mixed meat, one containing 33 per cent. of the cereal preparation and the other being unsupplemented. The latter retained 15 per cent. of the original amount of thiamin (thiochrome procedure) after one week's storage at 120° F., as compared with a 74 per cent. retention for the supplemented sample. Thus the effect of the added ingredients is quite marked.

While it is doubtful that this particular cereal-milk, bone mixture is specific for decreasing thiamin loss,

¹ Cracked wheat 34.2 per cent., ground barley 21.7 per cent., soya flour 27.6 per cent., bonemeal 7.2 per cent., dried skim milk 5.5 per cent., salt 2.3 per cent., tomato paste 1.65 per cent., sardine oil 0.25 per cent. and gum guaiac 0.16 per cent.

its effect is positive and gives a starting point for studies of the nature of the loss and of possible ways of minimizing it. If further work shows that there is actually a stabilizing factor present in this mixture and that the effect is not owing merely to physical changes, the way will be opened for the preparation of foods that are nutritionally as well as bacteriologically stable.

E. E. RICE

J. F. BEUK

H. E. ROBINSON

BIRTH OF A TWO-HEADED MONSTER IN THE RHESUS MONKEY

IN the June 17, 1938, number of *SCIENCE* I gave my own interpretation of the manner in which a rhesus female (acquired by the Carnegie Laboratory of Embryology as No. 636) had come into possession of three babies, reported in New York newspapers about April 17, 1938, as triplets. The facts are (1) that she was in possession of three babies when the boat arrived in New York harbor and (2) that she gave birth to at least one baby, for the act of parturition was witnessed.

In the cage with the female were five others, all of which were acquired by me and their uteri and breasts palpated. It appeared that one of the five had also just given birth to a baby; hence I concluded that it was kidnapped by No. 636. A third female had probably also become a mother, though the evidence was less clear than in the other case. Since in addition No. 636 was laparotomized and found to possess but a single corpus luteum, it was thought that the charge of double kidnapping was all but proved.

The sequel to this story is this: On December 5 of the same year she conceived again and on April 13, 1939, on the 143d day of gestation, delivered a monster with two partly united heads and a doubling of the spinal column from the mid-thoracic region upward. The rest of the body seems normal.

In view of this abortive attempt at twinning one naturally wonders if the mother should not perhaps be credited at least with twins (though not with triplets) in the preceding April. The data, however, are too uncertain to be used to bolster the much discredited theory of the hereditary tendency to produce duplicate twins.

On January 15, 1940, the animal in question furnished a normal 35-day-old embryo (Carnegie No. 640).

CARL G. HARTMAN

URBANA, ILL.