SCIENTIFIC PROCEEDINGS

ABSTRACTS OF COMMUNICATIONS.

Ninety-third meeting.

Cornell University Medical College, October 16, 1918.

President Gies in the chair.

1 (1376)

Canned tomatoes as an antiscorbutic.

By ALFRED F. HESS and LESTER J. UNGER.

[*From the Bureau of Laboratories, Department of Health.*]

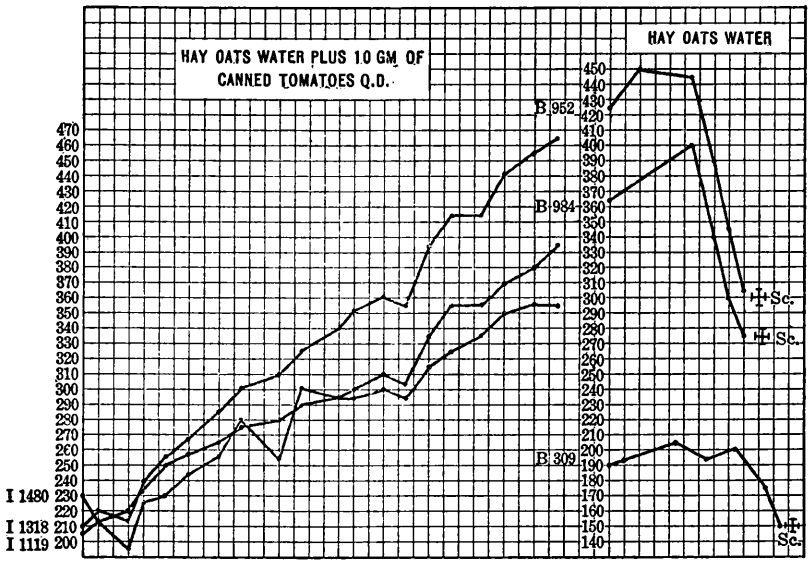
In view of the fact that canned tomatoes are included in our army ration, in which they may be substituted for potatoes to the extent of 20 per cent., it seemed worth while to ascertain whether they possessed antiscorbutic properties. This appeared particularly desirable in view of our previous experiments[1] which had demonstrated that the dehydrated vegetables commonly employed cannot be relied upon for furnishing this important dietary factor. From a theoretical standpoint a study of this question was of further interest, as the tomatoes have been subjected to a temperature above the boiling-point in the course of the canning process.

Series of guinea pigs, five in each group, were put on a diet of hay, oats and water ad libitum and fed various amounts of strained tomatoes which had been canned almost one year previously. It was found that the addition of 5 c.c. of these tomatoes was sufficient to protect the animals from scurvy, and that larger amounts stimulated growth to a remarkable degree.

In view of this favorable experience on animals, for the past three or four months we have fed canned tomatoes to infants who

[1] Hess, Alfred F., and Unger, Lester J., PROC. SOC. EXP. BIOL. AND MED., 1918, XV, p. 141.

were receiving pasteurized milk, substituting it in the dietary for orange juice which has become increasingly expensive. The amount given to babies three months or more of age was 15 c.c.; half this quantity being given daily to younger infants. The



The guinea pigs represented in the graphs on the left received canned tomatoes and thrived. Those on the right were not fed tomatoes and died of scurvy.

tomatoes have been uniformly well tolerated throughout the summer by babies as young as one or two months of age, and we can recommend this foodstuff as an economical and efficient antiscorbutic.

2 (1377)

Preliminary observations on the value of raw and dried tomatoes as antiscorbutic foods for guinea pigs.

By MAURICE H. GIVENS and HARRY B. MCCLUGAGE.

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The external signs of the nutritional failure known as experimental scurvy, which can be produced in young guinea pigs in