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A respiration calorimeter of the Atwater-Rosa-Benedict type designed for use with dogs and children; with demonstration.

By **H. B. WILLIAMS.**

[*From the Physiological Laboratory, Cornell Medical College, New York City.*]

The apparatus demonstrated is in many respects a miniature of the calorimeters of this type which have been constructed at the Nutrition Laboratory in Boston. The writer wishes to acknowledge his great indebtedness to Dr. Francis G. Benedict, director of that laboratory, for his invaluable assistance in working out the problem of a small calorimeter.

In order to measure with a satisfactory degree of precision the gaseous and energy metabolism of infants and small animals, it has been necessary to introduce some special modifications. As a detailed description of these modifications with a report of the control tests of the apparatus will be communicated within a short time, particular mention need not be made at present.

35 (560)

The chemical and energy transformations in the dog after the ingestion of different quantities of meat.

By **H. B. WILLIAMS, J. A. RICHE** and **GRAHAM LUSK.**

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A dog weighing about 13.8 kilograms was given on different days, 700 grams of meat and 1,200 grams of meat at the noon hour. In the morning the metabolism was determined for an hour, while the dog slept quietly in the respiration calorimeter. The minimum or basal metabolism thus determined was found to be about 25 calories per hour. After the ingestion of meat at noon, the animal was again placed in the respiration calorimeter, and the hourly metabolism determined. The results are given in the following table.