

A Feeding Tube for Quantitative Dietary Experiments on Rats.

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A difficulty in conducting feeding experiments on rats, when the amount of food consumed is a factor, is that the rats spill or waste varying amounts of the food if it is kept in the usual types of containers. We have devised a simple, inexpensive feeding tube from which rats do not waste or lose food, and with which quantitative experiments can be readily carried out. Being made entirely of glass, it has the further advantages of transparency, and of being suited for experiments where various drugs, which might react with metals, are present in the diet.

The feeding tube is made from glass tubing, 2 inches in diame-

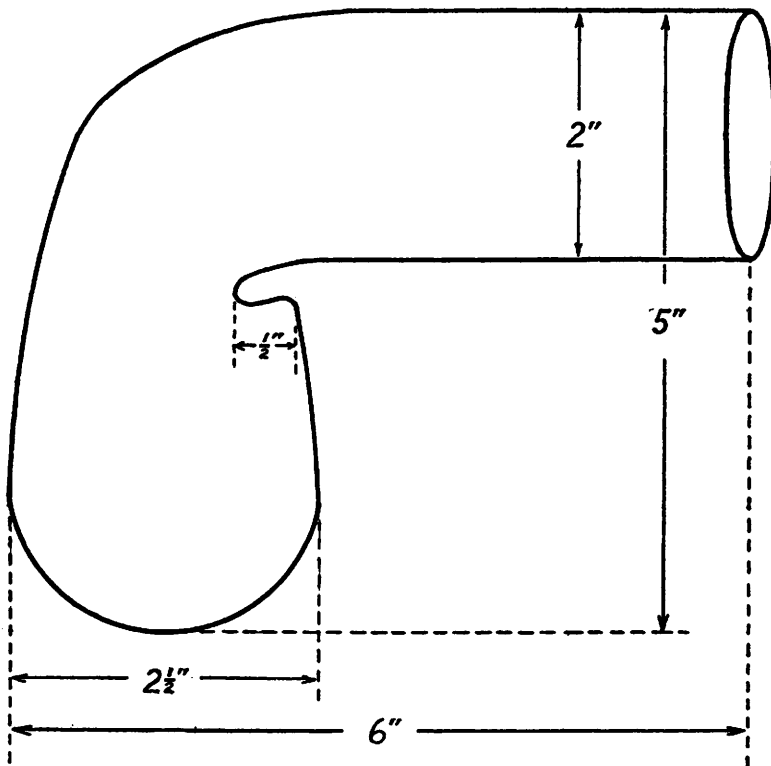


FIG. 1.

ter, which is bent into a right angle and the lower end sealed off. The accompanying figure indicates the shape and dimensions of the tube. An important feature is the small shelf projecting into the lumen at the bend. This is made by accentuating the wrinkle produced when the tube is bent, and shaping it in the direction and form indicated. This serves to catch any food the rats might scratch out, and to cause it to drop back into the bulb. The bulb as drawn will hold about 75 gm. of diet. Its size may be altered by blowing it larger or smaller as might be needed for any special purpose. Tubing of the diameter illustrated here may be used with rats weighing up to 250 gm. If larger animals are to be used, a tubing of larger diameter would be desirable.

6872

Experiments on the Use of the K Medium.

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One of the most striking of recent contributions on bacterial variability has been that of Kendall,¹ who reported the preparation of a special medium in which ordinary bacteria developed a filterable or "virus-like" stage. A number of the commoner bacteria, when inoculated into this medium, were converted within a short time to a form which passed Berkefeld filters and which could not be cultivated on ordinary media. Not only was the "K" medium effective in promoting such a change, but it was claimed to be effective also in bringing about the opposite process, namely reversion from the filterable form to the usual visible organism.

Since such a method, if effective, would place in our hands a valuable tool for the study of many debated problems on bacterial variability, an investigation of the K medium was undertaken in this laboratory.

Several different lots of this medium were employed. One was prepared from hog intestine according to Kendall's directions. After the alcohol and benzene extractions, the preparation was dried, ground and kept in a stoppered container. At the time of use, the proper quantity of the powder was placed in test tubes or flasks

¹ Kendall, *Northwestern University Bull.*, 1931, **32**, No. 5, 8.