

flavored diet by eight of the rats, while almost equal quantities of the two diets were consumed by the other four rats. In no single case is there any evidence of a preference for the unflavored diet.

These experiments indicate that on an adequate vitamin intake the fats studied are of equal nutritional value for growing rats. They explain how the greater growth of weanling rats on a butter diet in experiments where *ad lib.* feeding is employed may

result simply from a greater food consumption due to the preference of rats for butter flavor. Diets containing all these fats were used with equal efficiency in transformation to body tissue.

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## SCIENTIFIC APPARATUS AND LABORATORY METHODS

### A SIMPLE AND EFFICIENT CALOMEL HALF CELL

SOME fifteen years ago a co-worker was told to prepare a calomel half cell using a glass filter tube on the

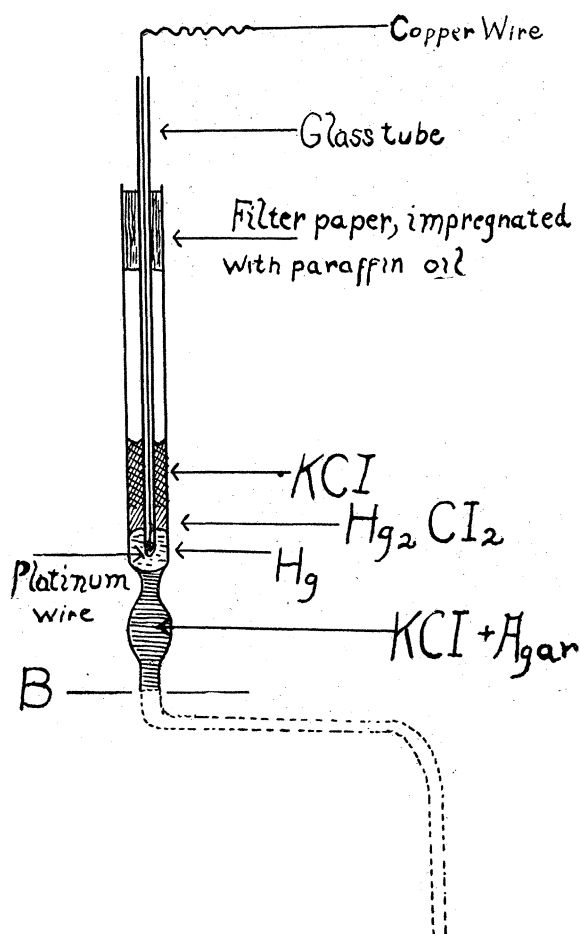


FIG. 1

end of the siphon connecting the cell and the analysis vessel. He covered the glass filter plate with the mercury, added the calomel and the KCl solution and inserted this electrode directly into the analysis vessel.

Evidently, as he stated afterwards, he had suffered from temporary absence of mind, for that electrode could not be expected to work. But the half cell too was absent-minded: it worked. The thin moisture layer on the glass surface was sufficient to form a conductive bridge between the calomel-KCl suspension above the mercury and the filter plate below it.

I remembered this fact later when needing a standard half cell, but lacked the usual implements to construct it and had not the possibility of acquiring them. Here it is (see Fig. 1); it needs only 0.5 ml of mercury, works perfectly and may be useful in teaching and research laboratories. The half cell may be inserted in a flask containing an indifferent solution and connected with the analysis vessel by a siphon; in this case its end (B) may be closed by agar or by a stopper of cotton or filter paper.

To be introduced directly into the analysis vessel, the bottom end has the form indicated by the dotted trace.

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