

larger quantities of the preservatives. This experiment, Series V., conducted as it was for a period of fifty days, was a rather severe test, and it appeared that in some instances a somewhat unfavorable result attended its use. On the whole the results show that one-half gram per day is too much for the normal man to receive regularly. On the other hand it is evident that the normal man can receive one-half gram per day of boric acid, or of borax expressed in terms of boric acid, for a limited period of time without much danger of impairment of health."

"It is, of course, not to be denied that both borax and boric acid are recognized as valuable remedies in medicine. There are certain diseases in which these remedies are regularly prescribed, both for internal and external use. The value which they possess in these cases does not seem to have any relation to their use in the healthy organism except when properly prescribed as prophylactics. The fact that any remedy is useful in disease does not appear to logically warrant its use at any other time."

"It appears, therefore, that both boric acid and borax, when continuously administered in small doses for a long period, or when given in large quantities for a short period, create disturbances of appetite, of digestion and of health."

In 1899 the British Government appointed a departmental committee of experts to investigate the whole question of the use of preservatives and coloring matters in food.\* This committee examined many witnesses, and certain members performed a large number of experiments. The conclusions arrived at by the committee relating to the use of preservatives in dairy products are of sufficient interest to be quoted here in full:

"The medical evidence, speaking generally, comprises for the most part opinion arrived at after a general consideration of the issues involved, but such opinion was not always based directly upon fact. The physiological evidence consists of the citation of the results of more or less exact physiological experiments. But, unfortunately, in the majority of cases the conditions under which the experiments have been made have only partially imitated those conditions which obtain in the actual taking of preservatives by the human subject to all ages for indefinite periods of time."

"Further, even supposing that we were to assume that the physiological experiments which have been laid before us did imitate with sufficient exactness the actual conditions obtaining in the inquiry in question, they would certainly do so only in so far as relates to the use of one preservative during a given period of time. The facts, however, show that in ordinary life what actually occurs is the simultaneous ingestion of more than one preservative. A further condition almost impossible of imitation by the physiological investigator is the consumption of these preservatives by all classes of invalids and by suckling. The absolute effect of these substances upon sucklings is at present unknown, and it is also

\*Report of the Departmental Committee appointed to enquire into the use of Preservatives and Coloring Matters in the Preservation and Coloring of Food—1901.