

preparation, is slightly the better digested. The carbohydrates of cornmeal were very completely digested, and this food fully sustained its reputation as a good energy producer. Apparently the malting or pre-digesting to which Orange Meat, Force, and Norka have been submitted in the preparation process has not improved the completeness of their absorption. Even the carbohydrates, which would be the most affected by the previous treatment, are not so completely digested as in the other foods. Of these three foods, or, in fact, of all the foods experimented with, Force has given the poorest results. It will be remembered that in so far as the efficiency of the malting and cooking process can be measured by the solubility of the organic matter of Force, a wheat product, it was not equal to that produced by cooking wheat farinas for twenty minutes; and it is quite possible that this comparatively poor preparation has affected its digestibility.

There is one important factor, namely, ease of digestion, that has not been taken into consideration in the above discussion. All work done in the body must result in the expenditure of a certain amount of energy, and, consequently, while two foods may be equally completely digested, one may be more easily acted upon by the digestive juices, and, as a result, a greater amount of the total energy would be left for the production of new material or for work. We have no way of measuring the energy expended in doing the work of digestion, and, therefore, cannot give figures on this point; but it seems fair to assume that two foods prepared from the same kind of grain and cooked to the same extent, and of practically the same composition, will require an equal amount of energy to carry out the work of digestion. Thus, two samples of rolled oats prepared in the same manner and cooked for the same length of time would probably require an equal amount of energy in digestion. If, however, the preparation of the foods for consumption had increased the solubility of the nutrients of one food more than the other, it would probably be more easily digested. Thus Norka contains, according to our determination, 28 per cent. of soluble matter, while rolled oats, after cooking twenty minutes, contains nearly 15 per cent. But when the cooking process was continued for five hours, the solubility of the oatmeal was equal to that of Norka, and probably the energy of digestion would be about equal. It would be equally correct to argue that as Force contained only 17 per cent. of soluble material and wheat farinas cooked twenty minutes 27 per cent., the former would require a greater expenditure of energy to digest it than the latter. If this be true, then Force not only is less completely digested, as shown in the above table, but it also required the expenditure of more energy to do the work of digestion and thus the nutritive value of the food would be still further decreased.

But while we cannot measure the *ease* with which the digestion of foods is accomplished, we can, to some extent, estimate the *rapidity* of