

so that I would rather not take up that side of the question, as it has already been covered very fully.

It seems to me that one of the objects of this discussion is to see if we cannot devise some means of making a greater use of the wheat of this country for human food. One point on which we should have a clear understanding is the meaning of the term "Whole wheat flour". As the term is used in the trade it means a grade of flour coming from the mill—not necessarily an 80 or 85 per cent flour, yet, there is the idea in the minds of many people that it is the whole of the wheat ground up, and that the term is used synonymously with "Graham flour", when, in reality, they are two entirely different things. The length of extraction has been dealt with by various witnesses, and I think the point is well established, in all experimental work carried out along this line, that as the extraction is lengthened the digestibility of the product is decreased.

Mr. PRICE: Beginning where, and ending where?

Prof. HARCOURT: I would say after you get over 72 or 75 per cent. Above that the digestibility of the product would decrease with the lengthening of the extraction, through the introduction of the bran and the influence of the bran on the peristaltic action.

Hon. Mr. CASGRAIN: Is not that a good thing?

Prof. HARCOURT: It is good for some people, and it may be bad for others; therefore a doctor may recommend whole wheat flour for one of his patients for whom it is an aid, but for another person it might be the worst thing that he could do. For this reason, I think there would be a lack of uniformity in the results obtained from a long extraction flour.

Hon. Mr. CASGRAIN: Is it not true that these little particles of bran cut up this mass of starch and give the gastric juices a better opportunity of working?

Prof. HARCOURT: That is true.

Hon. Mr. CASGRAIN: That is what we claim.

Professor HARCOURT: The bran particles cut the gluten, and the bread does not rise.

Hon. Mr. CASGRAIN: That is in the manufacture of the bread.

Professor HARCOURT: Yes. The result is that you get a soggy loaf that will not digest as well as a well risen loaf. I would like to submit at this time the finding of the St. Bartholomew Hospital in London, England, on this point:—

"From the experiments we are justified in concluding that the higher nutritive value which we might, upon pure chemical grounds, ascribe to grown bread, cannot, with the single exception of fats and mineral constituents, be maintained from the physiological side. On the other hand, distinctly less nutritive materials actually get into the blood in the case of the brown than of the white bread.

"White bread is, weight for weight, more nutritious than brown. Therefore, it appears the preference given by operators in large towns for white bread has to a certain extent a sound physiological basis.

"In the case of people with irritable intestines white bread is to be preferred to brown.

"In the case of people with sluggish intestines brown bread is preferable to white, as it tends to maintain regular peristaltic action and ensure regular evacuation of the bowels, with all its attendant advantages.

"In cases where the proportion of mineral ingredients, and especially of lime salts, in other articles of food or drink is insufficient, brown bread is preferable to white.

"If the dietary is insufficient in fat, or if the patient is unable to readily digest fat in other forms, brown bread may possibly be preferable to white."