

some of them who work the hardest and who, consequently, would soonest appreciate a difference in nutritive quality (navvies, for example), it is distinctly stated that their preference for whiter bread is founded on the fact that the browner breads pass through them too rapidly; consequently, before their systems have extracted from it as much nutritious matter as it ought to yield them. It is freely granted that much useful nutritious matter is, in the first instance, lost as human food in the abandonment of 15 to 20 per cent. of the wheat grain to the lower animals. It should be remembered, however, that the amount of food so applied is by no means entirely wasted. And, further, we think it more than doubtful, even admitting that an increased proportion of mineral and nitrogenous constituents would be an advantage, whether, unless the branny particles could be either excluded or so reduced as to prevent the clearing action above alluded to, more nutriment would not be lost to the system by this action than would be gained by the introduction into the body, coincidentally with it, of a larger actual amount of supposed nutritious matter. In fact, all experience tends to show that the state, as well as the chemical composition of our food, must be considered; in other words, that its digestibility and aptitude for assimilation, are not less important qualities than its ultimate composition.

"Of course, if the branny particles were reduced to a perfect state of fineness, and it were found that this prevented the aperient action, and that other evils were not introduced; or, better still, if more of the food materials can be separated from the bran, and in either case without more cost than the saving would be worth, there might be some advantage. But to suppose that whole wheat meal as ordinarily prepared is, as has generally been assumed, weight for weight, more nutritious than ordinary bread flour is an utter fallacy, founded on theoretical text-book data, not only entirely unsupported by experience, but inconsistent with it. In fact, it is just the poorer fed and the harder working who should have the ordinary flour bread rather than the whole-meal bread as hitherto prepared, and it is the overfed and the sedentary who should have such whole-meal bread. Lastly, if whole grain were finely ground, it is by no means certain that the percentage of real nutritive nitrogenous matters would be higher than in ordinary bread-flour, and it is quite a question whether the excess of earthy phosphates would not then be injurious."

The previously presented results on the digestibility of different kinds of bread confirm the above conclusions of Laws and Gilbert. In concluding the discussions on the nutritive value of bread, we submit the conclusions of a study of the composition and digestibility of white and whole-wheat bread given in the St. Bartholomew's Hospital Report, London, England, 1897:

"From the experiments we are justified in concluding that the higher nutritive value which we might, upon pure chemical grounds, ascribe to