## THE USE OF COARSE GRAINS FOR HUMAN FOOD.

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The object of this bulletin is two-fold, first to show to farmers generally, but especially to those in remote settlements, how they can become more nearly selfsufficient, so far as the food supply for themselves and for their families is concerned, and second, to point out, for the benefit of other classes of people, some ways of economizing in the cost of their food, and of improving at the same time the wholesomeness of their diet. Such a publication is particularly timely at the present juncture. It is desirable to encourage agriculturists in all districts, particularly those whose position is rather isolated; and it is quite essential to assist all classes of the community to practise the utmost possible economy.

In the early history of mankind, food was undoubtedly often consumed in very coarse condition. While certain disorders of the alimentary tract may be considered characteristic of highly civilized people, fed on dainty and carefully prepared products, it is probable that primitive man had other digestive difficulties to contend with, due to the coarseness of his vegetable food, and its comparatively low nutritive

As civilization advanced, and as mankind became conscious of the somewhat unsatisfactory quality of the foods available, steps were taken to free them from part of the ernde, fibrous matter, which they contained. In modern times these processes have been carried so far that we have at last reached a stage where most people consume too large a proportion of refined material and too little of the necessary, coarse and relatively indigestible substances. This fact is particularly conspicuous when we consider the uses which are now made of wheat and other cereals. Modern machinery has been so much improved that it is possible to separate very accurately the ground products, so that each portion of the grain is obtained almost entirely free from any other parts. We are apt to regard these carefully separated portions as purer than the coarser materials which our ancestors ate, but the word "purer" should not be used in this connection at all. Wheat flour containing a considerable quantity of ground bran may be quite as pure as the most accurately separated white flour, even though the former be darker in colour. Furthermore, it does not at all follow that the most complete separations furnish the most wholesome foods. Indeed, quite often the reverse is true; for, as is well known, the best possible health requires a varied diet. The natural desire for foods in a high state of purity and of excellent nutritive value finally led the public a good deal astray, both because appearance is not a safe guide as to quality, and because our knowledge of the problems of human nutrition was, and still is, too incomplete to enable us to pronounce authoritatively as to the relative values of various materials. Greater purity was estimated usually by a more pleasing appearance, and this naturally led to too great emphasis being placed on the colour and refinement of edible products. Not only was it considered that these must be free from dirt and other objectionable extraneous matter, but they must be attractively prepared and put up, and must conform to certain, often very arbitrary, standards as to colour and other characteristics. Hence followed the practice of bleaching and the use, on a rather large and sometimes dangerous scale, of artificial colouring matters, preservatives and adulterants. Although the amount of sophistication of food materials was never anything like as great as the public has been led to believe, a good deal of it occurred. Lately, however, people have become alarmed, some steps have been taken to safeguard the welfure of the community, and a decided reaction has begun against what may be fairly called the over-purification of foods.