

vert to Dr. Smith's view on that subject. The various national predilections for certain descriptions of food were remarkable. On the part of the Scotch there was a national preference for oatmeal, an article of food which was adapted to the peculiarities of the climate. The almost universal dislike of children to brown bread he attributed to an instinctive desire for that food which most promoted the physical development of the body and which contained the smallest amount of *débris*. When the Government attempted to force brown bread upon criminals it occasioned insurrection amongst them, which seemed to show that they instinctively knew better than Government what was good for them. \* \* Dr. Wyld proceeded to express an opinion unfavorable to pork as an article of food, and remarked that it was prohibited as unclean by Moses, whose hygienic regulations had never been surpassed. One remarkable result incidental to eating raw pork, which was often in a diseased state, was the production of the tape worm in the human stomach. He also condemned all young meats, such as veal and lamb, as objectionable articles of food. He advocated animal food in the form of sausages as a nutritious form of diet, particularly for the labouring classes, the skin in which it was enclosed retaining all the essential juices.

Dr. Robert Dickson, responding to the call of the chairman, said he had paid a great deal of attention to this subject, both theoretically and practically, and he was happy to say he had learnt a great deal from the paper read this evening. Of the relative value of white and brown bread opinions would differ, which was in a great degree owing to the diversity of tastes among mankind, which prevented an undue "run" upon any particular article of food. If the object was to afford nutriment to the system, he believed brown bread was inferior to white; if the object was to obviate a tendency to constipation, induced by a too sedentary habit, its use was essential. Dr. Lankester had very properly remarked that too little value had been attached to hydrogen in articles of food—whether animal or vegetable. There could be no doubt of the great utility of hydrogen as well as oxygen, to which scarcely any attention had been given in the paper. The hydrogen which existed in vegetable matters in the form of various hydro-carbons was of immense value. There were also other constituents in food of great importance. Nothing had been said of the great value of phosphorus, yet they all knew how essential that was to the animal system. It was alike important in health and in disease, and was an essential element to be taken into consideration in estimating the relative values of foods. Hence fish, which contained phosphorus, was a most excellent article of food, and if it were cheaper no doubt it would be more largely used by the lower classes.

Mr. Frank Buckland said, having had the medical charge of a regiment of the Guards for some years, he had made it part of his duty to observe the effect of diet upon those fine specimens of Englishmen. He found young recruits from Ireland who had lived chiefly on potatoes all their lives, and were apparently strong; muscular men, after being put upon the ordinary diet of the English regiments, altered very much in appearance, and though they made flesh very considerably,

they frequently broke down physically in going through their duties. The biggest boned men in the regiment were north country men and Scotchmen. That might be attributed to the oatmeal and also to the coldness of the climate. People from cold countries were invariably strong.

The Chairman\* said they would all agree that the inquiry which had been instituted by the Privy Council was of the highest public as well as private importance, and, so far as it had been carried out, it appeared to him to have been very ably executed. Hitherto Dr. Edward Smith had been confined in his researches to the dietaries in use amongst the poor of the northern districts of England, of Scotland, and of some parts of Ireland. The observations he had made there were highly valuable. They indicated the superior efficacy of the simpler diets, those of oatmeal porridge and milk in Scotland, and of potatoes and butter milk in Ireland. He had ascertained that in Scotland the country bred people, when they went into towns and obtained higher wages, and substituted tea and bread and butter for oatmeal porridge and milk, did not thrive so well upon this more expensive and stimulating diet. Public warning should be given of these results. It was highly important that these observations should be extended to the examination of the effects of the large variety of high and low dietaries in use in public institutions. There was great advantage in the observation of the effects produced on persons of similar ages and conditions, who might be weighed and examined. A German prince had lent to Liebig a body of soldiers to make experiments upon. He (the chairman) had promoted trials of different sorts of dietaries in prisons, and those trials might well be repeated under such scientific observations as Dr. Edward Smith was pre eminently qualified to make. If the examination of the effects of the brown bread, as compared with the white wheaten bread, made by Dr. Edward Smith, were deemed conclusive, let the trials be repeated on other classes of persons. Each chief article of food ought to be separately tried. The late Mr. Aubin, the manager of the Central District School of London, who had had 30,000 children under his care, and was a good observer of foods, had found that there were great variations in the effects of various conditions of the same food; for example, oatmeal of inferior growth or condition produced eruptions on the skin and functional disturbance, whilst a good quality of growth was productive of good effects. It had fallen to him (the Chairman) to collect and compare, rudely as it might be, the effects of different public dietaries before chemical analysis had been brought to bear on foods. The dietaries collected from different parts of England, he found, when reduced to comparative weights, fell in the following scale, that was, the aggregate amount of solid food. The average that each class got was as follows:—

As agricultural labourers .....	122
As artisans of the highest wages .....	140
As paupers .....	150
As soldiers .....	168
As prisoners in goal .....	217
As convicts on board the hulks, or as transported felons .....	237

To an allowance of ten pounds of meat a week in

\* Edwin Chadwick, Esq., C. R.