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AGRICULTURAL MEETING AT DRAYTON MANOR.

(Concluded from the last "Farmer".)

Dr. PLAYFAIR remarked that so much had already been said about produce that he wished more particularly to draw attention to the fact that a great variation existed in the nature and qualities of that produce when obtained. There were two purposes to be accomplished by all food, one of them being the increase and repair of the bodies of our animals—the other the support of animal heat. The body was an engine destined to perform particular work, and required various materials to keep it in constant action.—Coal, which did admirably to generate steam, would be a most inadequate substance to repair the pistons and cranks of the steam-engine when it became damaged by use. So was it in the animal body, for that which built up its fabric was not suited to sustain its warmth, without which the exercise of its functions must cease. Food contained these substances in different proportions, some varieties of produce being well suited for fuel, while others were for true nutrition. Thus the Potato formed a cheap and excellent fuel for the body, but was most expensive and inefficient as a means of repairing its damaged parts, whilst beans answered well the latter purpose, and were comparatively valueless for the former. The manner of manuring crops depended upon which of the two classes they belonged to; the flesh-forming principles were always associated with phosphorus and sulphur, which must be supplied with bone-earth, and sulphates, while the warmth-giving foods principally depend for their growth on a free supply of alkalies. Besides this, as farmers are the cultivators of food for the nation, it was important for them to know, especially in times of scarcity, such as we have had, with what crops they could grow the largest amount of food on the same space. In this respect the produce is most variable. Thus, whilst Turnips, Mangold Wurzel, &c., will grow nearly 700 lbs. of flesh forming principles per acre, Beans 600, and Italian Rye-grass considerably more, you cannot obtain, in ordinary crops, more than 350 lbs. of potatoes and peas and barley, not more than 200 lbs. from a fair crop of Wheat or hay, or 150 lbs. from an average crop of Oats. The variation of produce is, therefore, very considerable. But as profit is naturally and most properly the great object of the farmer, it was equally important to know at what remunerative cost the public became supplied with the equivalent amount of various kinds of food. At London prices a man can buy a pound of flesh on the body, with milk at 3s.; with Turnips at 2s. 9d.; with Potatoes, Carrots, and butcher's meat, free from bone and fat, at 2s.; with oatmeal at 1s. 10d.; with bread, flour, and barley meal at 1s. 2d.; and with beans and peas at less than 6d. These considerations are far from trivial, because when we consider that an equal amount of nutritious matter can be obtained from one food at less than one-fourth the cost of another, this is only saying that in times of distress, with an intelligent application of money, we can feed four people, where formerly we only could feed one. True it is, that in this country the art of cookery is far behind that of our Continental neighbours, and that we have not acquired the important art of rendering cheap varieties of food palatable. Count Rumford, when administering the affairs of Bavaria, and in introducing his important ameliorations into the habits of the poor, used to say that the internal resources of a country for food were as much dependent upon its cooks as upon its farmers, and in this he was perhaps not very far wrong. He meant by so saying to imply that a skilful adjustment of food and its skilful treatment might so render the cheapest food palatable that you could adequately sustain a larger population upon a limited area by attention to the produce cultivated. It is only lately that philosophers have attended to the art of cookery, and most important results have already been obtained. It is now known that the flavouring principles are dissolved in the juices, so much so indeed, that if you macerate the flesh of a fox in the expressed juice of venison, and afterwards cook it, the former cannot be distinguished in flavour from the latter, or the flesh of a fowl may be made to taste like that of a pike by such maceration. In our ordinary way of cooking, however, a large portion of the flavouring substance is dissolved in the water, and is thrown away, unless it be, as is most proper, converted into soups. But far greater results follow from our ignorance of cooking. There is a substance called phosphate of soda contained in food, and it is by this salt that respiration is supported; without it we should die by asphyxia, as no means exist except this for carrying off carbonic acid from the system. This salt being soluble is very generally carried off from food during cooking, and the most distressing physiological results follow from the neglect. In salting meat, such phosphates are abundantly carried off with the brine, and scurvy naturally follows from the consequent want of adjustment between the organic and mineral portions of the food. Liebig, and others, have opened the way to study these important considerations in cookery, and he (Dr. Playfair) hoped to have an opportunity at some future time of explaining this subject more in detail to farmers. He now directed their attention to it, with the especial object of improving their cottage cookery, and the comfort of the workmen under their charge. If we could improve the cottage cookery of this country, if we could render palatable a greater variety of viands, the most important ends would be obtained. Wants would be created, and labour given for their gratification. A greater variety of produce would be cultivated in this country, labour would be better distributed and equalised, and the country would be freed from those dreaded visitations of famine which now unhappily arise from the failure of one of our few kinds of food.

Mr. PARKES said that he could mention a fact or two connected with the use of salt, which might be interesting to the farmers present, and, although not a farmer himself, he had, perhaps, more opportunities, from his extensive operations in drainage, of observing and learning the practice of farmers than the generality of agriculturists. It had been the habit for many years of those well known and excellent farmers, the Messrs. Outhwaite, of Burnessee, near Catterick, in Yorkshire, to apply a very large quantity of salt as a dressing to the soil in preparing for wheat, *he believed more than a ton per acre*, but he did not recollect the exact weight or measure. They found it expedient on their soil to work the land well during the autumn and winter, and sow Spring wheat. They were of opinion that the salt tended directly to the destruction of grubs, &c., and indirectly to the improvement of the plant itself. The land was well drained. The account of Messrs. Outhwaite's mode of farming was to be found in the reports of the Yorkshire Agricultural Society, which body had not unfrequently conferred on these gentlemen their prize for the best farmed land within their district. An instance of the presence of enormous quantities of salt in land not accompanied by infertility, might perhaps tend to disabuse the farmer's mind of a prevailing idea that salt was injurious, when