

the only variation is the kind of meat, and the components of the puddings, and the mode of cooking them. The dinner, then, should be varied, so that the same kind of meat shall not be always supplied and that some change of food, or mode of cooking shall occur daily.

C.—The last observation may be regarded as trite and unnecessary, since it is admitted in most dietaries to a limited extent, but the next one, viz., that with variety in food there shall be uniformity in nourishment, is much disregarded. Thus, to select one from many dietaries which have been sent to me for my opinion on their fitness. On four days a week children from the age of five to the age of nine, have for dinner 3½ oz. of cooked meat and 8 oz. of potatoes, which contain between 1,200 and 1,300 grains of carbon, and nearly 70 grains of nitrogen, whilst on two days 10 oz. of suet pudding is alone allowed, containing about the same quantity of carbon, but only two-thirds of the quantity of nitrogen; but as the digestibility of the two diets must be very different, the defect of the latter is doubtless much greater than the chemical constituents indicate. On one day in the week there is rice pudding, and if we add ½ pint of milk to each 1 lb. which is no doubt beyond the mark, it will yield less than 800 grains of carbon and 27 grains of nitrogen, or a defect of more than one third of carbon and nearly two-thirds of nitrogen. I may also make use of the same dietary to show another defect in the selection of food in poor-law dietaries: 16 oz. of rice, potatoes, or other vegetables, are allowed indifferently at dinner, the amount of carbon in the rice being nearly four times as great as that in other vegetables, whilst the proportion of nitrogen in potatoes and vegetables is only one-third and one-fifth of that in rice. Thus, whilst the alteration of foods is necessary it is manifest that by the present system even good guessing at truth is not effected, and that such recondite questions as the nutritive value of foods can only be answered by scientific authority.

D. True economy consists in keeping the poor in health and strength at the least cost, and not simply in finding the cheapest dietary upon which they may live. Hence, 1st, a selection from the foods to which they are accustomed, of such as will yield the greatest nutriment at the least cost; 2nd the cooking of them so as to obtain the whole of the nutriment from them; 3rd, by supply of proper kinds of foods with sufficient variety of flavour; by well ventilated rooms and by exercise in the open air to keep up the relish for foods, for under such circumstances the food is better assimilated by the system (that is to say, less of it is wasted), and the cheaper and less savoury foods are with equal chemical value equally nutritive with others of a more costly kind.

E.—Of separate foods, I will refer to two or three. For all persons below adult age, skimmed milk or butter milk, oatmeal and bread should be given twice a day. The mid-day meal should always consist of meat and vegetables. The meat may be prepared as soup thrice a week with advantage, and to it should be added well-digested bones, pearl barley, and other vegetables, according to some of the numerous formulæ published by the Government, and of which the following three have been specially arranged by me:—

SOUPS.

| OX-HEAD SOUP | PEA SOUP. | PEA SOUP. |
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| Cost per ration 92d. Carbon 1,117 grs. Nitrogen ... 49 " | Cost per ration 1.28d. Carbon 1,201 grs. Nitrogen ... 88 " | Cost per ration 1.16d. Carbon 1,099 grs. Nitrogen ... 61 " |
| QUANTITY PER RATION. | | |
| Meat off ox heads 2oz. Bones do. 2½ Pearl barley..... 2 Rice 1 Oatmeal 1 Water to make 1¼ Pepper, salt, and herbs. | Meat off necks of beef 1½oz. " pigs' heads 4 Bones of beef..... 1 Barley 2 Split peas 1 Peas ½ Peas ½ Onions 1 Carrots 1 Turnips 1 Water to make 1¼ Pepper, salt, and herbs. | Meat off leg of beef 2 oz. Bones do. 4 Barley 1 Split peas 1 Onions 1 Carrots (crushed) 2 Oatmeal 1 Water to make 1½ pts Pepper, salt, and various herbs. |

It is desirable that dried herbs be used, and these, with the other vegetables varied on each occasion. This with bread alone, or, better still, with some kind of pudding, would suffice for the dinner on the soup days.

The use of tea and coffee should be restricted to the aged and the sick, or to special occasions.

In reference to fresh vegetables, when they are bought, it should be observed that, as they are dearer than bread, their use should be limited, but when they are grown by the labour of the paupers they promote healthful exercise, and supply food at a nominal cost. It is important to bear in mind that the necessity for any given quantity of fresh vegetables is relative only, whilst they may be eaten with equal advantage in large or small quantities, provided there be a corresponding supply of other fresh food.

On dietary of prisons Dr. Smith says:—

In prison discipline there are but two circumstances affecting the dietary which render it different from that of workhouses, for in both alike it is a duty to sufficiently feed the inmates, and to do this with the greatest economy. These are simple confinement with its implied restriction of fresh air, and exertion, and mental activity, and the influence of the labour exacted under hard labour sentences; and where these two influences have been estimated in a scientific manner there can be no difficulty in establishing a system of dietary which may meet the wants of the prisoners, and be everywhere uniform or equivalent.

Now what is our knowledge upon these two subjects. As to the effect of seclusion, we know theoretically that it would lessen the activity of all the vital functions, and thereby in itself be attended by less waste of the tissues of the body, and so far less food would be needed (as each of us would find if we kept in our room for a week) but practically it has been found that the weight of the body is lessened in confinement, a fact resulting either from the deficient supply of food which was obtained, or from a diminished use made of that food, and hence, without proving either alternative, it was concluded that more food was required in a state of seclusion than would have been necessary in the ordinary circumstances of life. Upon this was based a scheme of dietary which