

The contribution of woman to the solution of the food problem is commonly supposed to be confined to the kitchen. There are indications, however, that she may play an important part in the laboratory also. Investigations of great value have lately been carried out at the Lister Institute by Miss Harriette Chick, D.Sc., and Miss E. Margaret Hume. Some interesting results of their work were series of public lectures now being delivered at University College, London. Her subject was "Accessory Food Factors (Vitamines) in War-time Diets."

But what are vitamins? The name will probably be unfamiliar to many readers to whom such technical terms as proteins, calories, and carbohydrates have by this time become household words. They are certain essential constituents of an adequate diet which are present in minute quantities in most foods in the natural state. They have been divided into two classes. One class consists of the vitamins necessary to growth. In the other class are the vitamins whose absence produces what are known as the deficiency diseases—namely, (1) beri-beri, (2) scurvy, (3) rickets.

On the question of the growth of vitamins, which obviously affect the case of young people only, Miss Hume said little. They are found largely in fats, and the lecturer accordingly suggested that the fat of milk, butter, and cream should be kept as far as possible for children, while adults made use of the less valuable fats to be derived from such foods as margarine. It is to be noted that the kind of vitamins which ministers to growth is believed to be also the best preventive of rickets.

The greater part of Miss Hume's lecture was an exposition of the characteristics of the vitamins whose absence from the diet is liable to bring on beri-beri or scurvy. These diseases affect both adults and children. The symptoms of beri-beri are the same as those of peripheral neuritis. It is most common among the rice-eating nations of the East, but they are far from being its only victims. The anti-beri-beri vitamins is most richly present in the cortex or husk and the germ or embryo of cereals, and the disease may therefore appear among any people whose diet consists largely of over-milled cereals—that is to say, those from which the modern processes of milling have removed the husk and germ. In English milling before the war these parts of the wheat were taken off and went into the offals. The reason for their elimination was the fact that the germ is very rich in terments. It was therefore debarred by the millers, as it impaired the keeping qualities of the flour.

The pulses, again, are subjected to no destructive processes of milling, and the vitamins are uniformly distributed throughout them. The same description applies to eggs, including dried preparations of genuine eggs, but not such articles as custard powder. Vitamins of the anti-beri-beri type are also present in cow's milk. The only cases known of infantile beri-beri have occurred where babies have been breast-fed by mothers suffering from the disease.

In Miss Hume's opinion, the normal diet of Europeans is a safe one as far as beri-beri is concerned. Even where pure white bread is used, its consumers are protected by the vitamins to be found in the other articles of their dietary. Most of the foods mentioned seem to keep their vitamins very well. There is not much loss of them in cooking at the ordinary temperature, but prolonged cooking—say for an hour—at a temperature of 110 or 120 degrees C. (i.e. considerably over boiling point) will destroy them. The chief application of this discovery concerns tinned foods, as they have usually been subjected, in their preparation, to intense and prolonged heat. A diet consisting mainly of tinned foods, together with polished rice and white bread, would undoubtedly bring on beri-beri if continued for some months.

### NEW KIND OF WOOL.

Owner of dogs of long-haired breeds are asked to preserve combings, as they have been found to be of value for the spinning of an exceptionally high class of wool. A British Dogs' Wool Association has been formed to assist in the matter.

### GERMAN TOBACCO.

An analysis of samples of tobacco taken from German prisoners of war has shown that it consists of small hop flowers, leaves or stems of horehound, mullein, wild oats, heather, elder and bark.

### POST BELLUM TRADE.

There is every reason to believe that trade after the war will be good, and some industries have already booked orders for five years ahead, stated Mr. G. H. Roberts, Minister of Labour, at a reconstruction meeting at Manchester.

### THE NEW FAITH.

The Faith, 7,900 tons, is the world's largest reinforced concrete ship. Reinforced concrete, it is stated by the engineers, has a notable flexibility under the strain, and will, therefore, be able to stand the stress of sea duty. So sure are they of its success that work on 4 similar ships is to be started at once.

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