THE PUBLIC HEALTH.

ON THE STATE OF THE PUBLIC HEALTH.

Annual Report of the Chief Medical Officer of the Ministry of Health for the year 1932.

(*Concluded from page* 279.)

A New Problem in Food Adulteration.

"At the time when the Sale of Food and Drugs Act, 1875 (now the Food and Drugs (Adulteration) Act, 1928) was passed, the adulteration of food had become rather a serious matter. Adulteration of this kind has, however, largely given place to scientific 'treatment' of food (sometimes described as 'sophistication') at the hands of skilled chemists. Whereas 50 years ago it was the rarest thing for a food manufacturer to employ a chemist, now every factory of any consequence is equipped with its research laboratory, and there are actually more chemists employed in the various branches of the food industry than in any other single industry in the country. The result is that every sort of artifice is being used, in competition with rival firms, to 'improve' the appearance, colour, taste, keeping qualities, etc., of food. For the most part such artifices are above suspicion and constitute an obvious advance in manufacturing practice, but on the other hand many of them are open to serious question and are causing some uneasiness among those responsible for the wholesomeness of food supplies. This is a new problem in supervision and in the administration of the Acts controlling adulteration of food.

"As instances in which there exists a legitimate suspicion that commercial process may involve a definite risk to health or debasement of nutritive value I may cite (*a*) the fumigation of food with toxic gases to destroy insect pests, (*b*) the presence of heavy metals in foods due to the materials or containers used in manufacture and storage, (*c*) the increasing use of poisonous insecticides and fungicides in agriculture and horticulture, (*d*) the treatment of flour with bleaching and 'improving' agents, (*e*) 'fortification' of foods by artificially added vitamins, (*f*) the uncontrolled and unregulated exposure of food to ultra-violet rays, or (*g*) the introduction of new synthetic colours and flavours.

"It is not only on the score of possible direct injury to health that present day scientific treatment of food is raising difficult questions. Innumerable processes have been introduced in which the danger lies not in any direct menace to the health of the individual, but in the possibility that the nutritive value of the food has been adversely affected, or that the food has been so treated as to give a totally false impression of the nutritive value,

"There is a tendency at the present time for manufacturers to avail themselves of the publicity value of recent vitamin research by *adding vitamins empirically to a variety of foods* without due consideration of the results which may accrue from such haphazard practices. If a halt is not called to this indiscriminate dosing of foods with vitamins there is a possibility of a disturbance in the balance of nutrition which may have wide-reaching effects and which it is not unreasonable to contemplate with some uneasiness.

"As an example of this attempt to 'improve' the nutritive value of a food (and incidentally its selling appeal to the consumer) the addition of irradiated ergosterol (vitamin D) to *bread* may be mentioned. Such bread is already on the market and recently an important firm of bakers contemplated the addition of irradiated ergosterol to their bread in amount sufficient to make its vitamin D content equivalent to that of butter, weight for weight. This would mean an unusual ingestion of vitamin D by the consumer when it is considered that many pounds of bread are eaten for each pound of butter consumed.

"Another aspect of the matter is the risk of hypervitaminosis. Although, if the diet is normal and contains a sufficiency of milk, the danger from hypervitaminosis in children would not appear to be great, there is evidence which suggests that under certain conditions (especially when the diet is lacking in milk or when the calcium intake is high and the phosphorous intake low), the risk of hypervitaminosis has to be seriously considered. It is not impossible that such conditions might occur in children receiving a faulty diet poor in milk and consuming appreciable quantities of bread dosed with irradiated ergosterol.

"It is desirable therefore that the administration of vitamin D should be capable of control and this could certainly not be ensured if vitamin D were continually being administered in a staple daily food like bread which is eaten in varying quantities and the consumption of which is governed by needs entirely different from vitamin D requirements. If the practice of adding irradiated ergosterol to bread became at all general it might become impossible in some districts at any rate to obtain ordinary bread free from this substance."

Metallic Poisoning.

Serious cases of *lead poisoning*, traced to the use of lead pipes for conveying cider from barrels to the engine at the public-house bar, and of *antimony poisoning* from the use of enamelled vessels are also cited. "At a Christmas dinner to the staff of a well-known London hospital, lemonade was served which had been prepared in new enamelled iron jugs. During the progress of the dinner, and subsequently, one after another of the hospital staff was seized with violent sickness, until eventually 65 out of 70 were more or less seriously affected. It was found that acid lemonade had attacked the enamel of the jugs and had become highly charged with soluble compounds of antimony. Fortunately there were no deaths."

Food Poisoning.

"It is well to remember," we are told, "the rarity with which in recent years canned food has been proved responsible for cases of food poisoning in comparison with food of more innocent reputation, such as milk, eggs, and meat dishes—a hen's egg of Polish origin used in a milk pudding was almost certainly the cause of six cases of severe gastro-enteritis in a family." A special warning is also given of the risk of consuming insufficiently cooked eggs, especially those of ducks.

THE TREATMENT OF DIABETES MELLITUS.

The following report on "The Treatment of Diabetes Mellitus," abridged from the Annual Report of the Chief Medical Officer of the Ministry of Health for the year 1932, incorporates the latest opinions on the treatment and management of this disease as well as statistics in relation thereto.

Prior to 1914 the attention of physicians was concentrated on the failure of the diabetic patient to metabolise carbohydrates. Carbohydrates were drastically cut down in the diet and the patient was given large amounts of protein and fat to compensate, e.g., von Noorden's oatmeal diet (1903). Naunyn recognised the value of fast days in treatment and F. M. Allen introduced a regimen of prolonged fasting and under-nutrition in 1914 from which good results were obtained.

The discovery of insulin in 1921 by F. G. Banting and C. H. Best supplied a specific treatment and also opened up a field of research into many aspects of the disease. Diabetes is now regarded as being not merely a derangement of carbohydrate metabolism but a disease of much

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