TUBERCULOUS MILK.

By J. MCFADYEAN, M.B., B.Sc., Royal Veterinary College, London.

SINCE the date of the First Congress for the Study of Tuberculosis (Paris, 1888), a gradual change of opinion regarding the danger of tuberculous meat has been taking place. The members of that Congress agreed, almost with unanimity, that the sale of tuberculous butcher-meat was a great menace to the health of human beings, and that nothing short of the wholesale condemnation of animals affected in any degree with tuberculosis would suffice to avert the danger. There can be no doubt that the finding of the Congress on this head did much good by calling attention in this country to the necessity for a sanitary control of the meat trade, but at the present time there are very few pathologists who are not ready to admit that the so-called "total seizure" is impracticable and unnecessary. The decision of the Congress was based on the view that tuberculosis is always a disease *totius substantiæ*, and that the whole carcass is therefore dangerous whenever a lesion—no matter what its apparent extent may be—is discovered in any part of the body. Such an opinion can no longer be maintained. It has been disproved by the experimental evidence, and it is entirely opposed to the facts that have been brought to light by a careful study of the distribution of the lesions in tuberculous cattle. The statement that "tuberculosis of human beings frequently comes from the butcher's stall" was a wild exaggeration, and the adoption of such a view of the etiology of human phthisis would have done much harm by diverting attention from the common method of infection.

But since the date of the Paris Congress nothing has occurred to lessen the alarm that was sounded regarding the danger of tuberculous milk. Tuberculosis of the cow's udder is fortunately not common, but certainly it is not rare, and in every case of tuberculous mastitis the milk is demonstrably infective. In every case of the kind, even in stocks that are submitted to frequent inspection, the mammary disease is in existence for some time—probably often for weeks—before it is detected, and during this period tubercle bacilli are sold with the milk. The milk is then infective, and there can be little doubt that it *infects*. It has been asserted that the milk of a tuberculous cow is often infective even when the mammary gland is free from the disease, but such a view is just as untenable as that the muscular tissue is infective in tuberculosis of, say, the bronchial glands. But mammary tuberculosis is very seldom the primary lesion, and, given the existence of tuberculosis of the mesenteric glands or peritoneum, the disease may any day extend to the mammary gland; physical examination of the gland would then only apprise us of what had happened after the lesion

had attained a considerable size—that is to say, some time after the milk had become infective. It is on this ground that the milk of cows that are tuberculous in any part of the body ought to be absolutely excluded from the market. A few years since those who were alive to the danger might have been pardoned for not saying much about it, owing to the fact that it was difficult to suggest a method of altogether averting it. But that reason for silence no longer exists. When a dairyman now sells milk from a tuberculous cow it may be urged against him that, if he did not know that the animal was tuberculous, his ignorance was culpable, for recent experience has proved that tuberculin is a marvellously accurate agent in the diagnosis of the disease. The time appears ripe for taking advantage of this discovery, and it is to be hoped that the action of the Philadelphia Board of Health in this matter will now be imitated by sanitary authorities in this country. That Board, recognising that the use of tuberculin is the only trustworthy means of ascertaining whether an animal is tuberculous or not, has ordered the chief inspector of milk to keep a register of all herds of milch cows that supply the City of Philadelphia with milk, such register to be open to the inspection of the public, and to distinguish between the herds that have been certified as free from tuberculosis by the tuberculin test, and those that have not been thus reliably certified and are therefore suspicious.

MEETING OF NOTTINGHAM MEDICO-CHIRURGICAL SOCIETY, DECEMBER 19, 1894.

DR. JOSEPH CARROLL'S CASE.

DR. BOOBYER briefly reviewed the principal facts in connection with Dr. Carroll's case. Dr. Carroll at the time of his recent dismissal, he said, had been ten years medical officer of health of Ilkeston. During seven years he received the nominal salary of £30 per annum; during two and a-half years, £50; and for the final six months only £75. He was "not re-elected" at the end of his last year of office, and nothing was stated to justify his dismissal beyond the fact that his ideas as a sanitarian were too advanced for a place of such modest dimensions as Ilkeston. His successor was a member of the Town Council until appointed to supersede him, and was also stated to be connected by marriage with more than one prominent member of the party who appointed him. His successor, also, although he did not appear to have had any experience of public health work, was appointed at a salary £25 in advance of the highest received by Dr. Carroll. In a word, Dr. Carroll had organised the work of the health department and its isola-