of animals in whose udders tubercular lesions exist: and also, as has been shown by Professor Bang of Copenhagen, in women whose breasts are tuberculous. Of six hundred cows examined by Dr. Woodhead and Prof. McFadyean, in six cases they demonstrated the presence of tubercle bacilli in the milk.

Prof. Walley says: "In 1872 I lost a child in Edinburgh under circumstances which allowed but of one explanation, viz., that he had contracted mesenteric tuberculosis through the medium of milk." A Mr. Cox of the Army Veterinary Department. England, has related the particulars of a case which led to the same conclusion; as also has Mr. Hopkins, F.R.C.V.S., of Manchester. Fleming has referred to a similar case as occurring in the child of a surgeon in the United States; and a short time ago, says Walley, a case of mesenteric tuberculosis by the imbibition of milk occurred in the child of a well-known veterinary officer of the Privy Council. At a meeting of the Edinburgh Medico-Chirurgical Society, held last year, Dr. Woodhead referred to some undoubted cases of transmission to man and the pig by the medium of milk. Many other cases of a similar character have been reported.

A most striking case was recently reported by Denune, of Berne (Med. Press & Circ). An infant aged four months, with no tuberculous tendency, died of tuberculosis of the mesenteric glands, popularly called consumption of the bowels, proved by a post mortem examination, the bacilli being found in the glands. The child had been fed only with milk from a cow which was then killed and found to have tubercles in the lungs, while the milk pressed from the deep parts of the udder contained the tubercle bacilli.

According to Prof. Bang and others, the cream and butter, and also the buttermilk, from tuberculous cows has been shown to be as infective as the milk, if not more so. This is of the most serious importance of all: for although the milk and flesh can doubtless be so cooked as to be rendered safe, it is not so practicable to cook cream and butter.

Year after year for many years interested persons, and some others with strong incredulous tendencies, have fought against rejecting the flesh, milk and other products of tuberculous animals. First it was conceded by these persons that there might be danger in using the flesh when tubercles were actually found in the flesh, but that tubercles in the viscera only could not affect or injure the flesh. Then it was contended that it was safe to use the milk so long as the udders were free from tuberculous formations. But science and those with a deeper and nicer regard for the public health have beaten them all at every point.

The best authorities now consider it unsafe to use the milk or any part of the carcase of an animal which gives clear evidence of the disease in any part of the body. This because it is believed that the bacilli once having developed in the organism, circulate more or less freely in its fluids to all parts of the organism.

This was the decision in an important case tried last year (1889) before the sheriff of Glasgow. Some carcases of beef had been condemned by the Inspector, and the owners of the carcases appealed the cases. A large number of expert witnesses was examined on both sides, but the weight of evidence, of that especially from the most experienced and noted physicians and veterinarians, was decidedly in favor of rejecting all parts of a carcase in any degree tuberculous. The leading medical journals endorsed and commended the sheriff's decision; and the British Medical Journal in a lengthy article showed how weak was the evidence on behalf of the appellants. This was considered a test case, and, it appears, is now regarded, in Great Britain especially, as a guide and precedent for action in the inspection of carcases.

## DIRECT INFECTION OR INOCULATION.

This is not a common method of spreading this disease; although a number of