

Dr. Brush contends that the bovine race provides the special favorite soil of this tuberculous parasite. He shows that in lands like Egypt, the indigenous inhabitants retain immunity while associating for long periods with consumptive immigrants, while on the other hand in regions like Australia and the Sandwich Islands the inhabitants have become infected after the introduction of dairy cattle. In all dairy countries the prevalence of tubercular consumption is a settled fact, while the only countries at all in doubt are those where the dairy consists of other than our domestic cows. The poor Chinese as a people do not use milk, while the Tartars in that country are meat and milk consumers, and therefore the observations of medical men are confusing, and they can not understand why the disease prevails among the dominant Tartar class and not among the poorer Chinese. In South America, where cattle are numerous, but the use of milk is almost unknown or used only after being boiled, the natives still enjoy an immunity. He takes a geographical square of ten degrees, embracing Spain and Morocco, and contrasts the two countries, the climatic conditions being pretty nearly equal: Morocco, where there are no European dairy cows, is exempt from tuberculosis; while in Spain and Portugal, where dairying is carried on in the European style, tuberculosis prevails.

Evidence that a certain amount of relation exists between the death-rate of man and bovine animals respectively from consumption, and that this relation may be materially affected by the use of tuberculous flesh for human food, is afforded in a chart issued by the authorities of the Grand Duchy of Baden in the year 1881. The chart applies to fifty-two towns, and shows that where tuberculosis was prevalent among cattle, it was proportionately prevalent among the human population, and was particularly so in towns in which the number of low-class butchers was greatest.

In a recent debate in parliament in Great Britain, Sir Lyon Playfair pointed out that it is a "significant fact that when tuberculosis in cattle increases, consumption of some form or other, but especially of the mesenteric and intestinal form, also increases amongst children."

MODES OF DISSEMINATION OF THE INFECTION OR BACILLUS AND ITS ACCESS INTO THE BODY—HOW THE DISEASE IS SPREAD.

Practically, as regards the prevention of the disease, this point is a most important one and demands much consideration.

It has been clearly established that there are at least three ways in which the bacilli or infection of tuberculosis may enter the body and be enabled to develop there and give rise to the disease, as follows:—(1) By inhalation into the air passages and lungs; (2) by swallowing into the stomach and alimentary tract or system; and (3) by direct introduction under the cuticle (the outer or true skin) or under the epithelium (which covers the inner membranes) and so into the skin or mucous membrane, as by means of a scratch, abrasion or "sore" in the skin or lining of the mouth; while some believe the bacillus may be directly transmitted by (4) heredity, which is probably doubtful.

RELATIVE TO THE FIRST METHOD—INHALATION OF THE BACILLUS:

It is the general opinion that transmission of the malady in the human species takes place most frequently by the dry expectorated tubercular matter being accidentally reduced to powder and carried by the atmosphere into the lungs. Owing to the fact that the signs of the disease are most commonly found first in the lungs, inhalation appears to be the commonest way in which the disease is contracted. This method of infection has been proved by experiments, in which animals inhaled tubercular secretions minutely divided so as to admit of the bacilli being distributed in a current of air, thus imitating that distribution of the virus which occurs when a tuberculous subject coughs; the results of the experiments being that the animals breathing such infected air nearly always succumbed to the disease.