

periments showed the very high nutritive value of milk for bacteria, and also the greatly increased value due to high temperature. The practical value to consumers of milk was that present day milk ought to be first boiled (sterilised) and then refrigerated.

They were, he thought, inclined to attribute all disease to the presence or effects of bacteria, and were apt to ignore the influence of what he might call foreign bodies in milk, which might, and doubtless did, cause a considerable proportion of digestive disturbances in infants and children. He referred to such matters as particles of straw, hay, hairs, litter and dust, which too often they found at the bottom of the tumbler, after the milk had been drunk.

Their presence in the milk, however, must be taken into consideration, not only from their own inherent evil effects, but because they acted as rafts for the conveyance of bacteria to the milk. Certain specially infective diseases were conveyable by milk as a medium, and Dr. Nasmyth devoted the remainder of his remarks to that subject. Cholera, he said, was a microbic disease. Diphtheria was another. An outbreak of diphtheria at Hendon elicited the fact that there was a special incidence of the disease on those members of the households who used un-boiled milk, and that families who used habitually boiled milk quite escaped. The domestic cat, it was well known, suffered from this disease, and in his own experience several cases of diphtheria occurred in a family which he had good reason for suspecting originated with the cat, which had been helping itself to milk meant for the children's use. Scarlet fever was also connected with milk, and they had now got to the time for tabulating such outbreaks not due to milk rather than those due to milk.

Dr. Nasmyth, after giving some details as to the ways by which the infection was brought into the milk, said it was abundantly established that milk was accountable for many out-breaks of enteric fever.

There were various ways by which it might reach the milk supply—by aerial currents conveying the bacilli which had been liberated by the evaporation of the medium in which they were, by attendants on enteric fever handling milk vessels while their clothes and hands were infective, and the commonest way of all was through polluted water either having been added to the milk or used for cleaning the milk utensils. A water supply for dairies, he added, should be entirely above suspicion. The lecturer then proceeded to give a brief abstract of the relationship of milk and tubercular disease. The proportion of tuberculosed cows, he said, was very variously stated by different authorities in different countries, and while it was of scientific interest to know what was the ratio of tuberculous to sound cows, for their purposes a small ratio of tuberculosed cows in a byre was quite sufficient to infect the whole milk, when they kept in view how suitable a medium it was for the growth and multiplication of micro-organisms. One cow in a dairy with a tuberculosed udder would be sufficient to contaminate all the rest of the milk with which it was mixed and one tuberculosed cow might affect all the others in the byre.

In advancing proof that the milk of such cow was infective, Dr. Nasmyth remarked that veterinary inspectors found very great difficulty in diagnosing limited tubercle in cows' udders, and as experiments had shown that tuberculous milk caused human tubercular disease, among animals, analogy would lead them to believe that the same results would happen to individuals. It had been shown that the form of tubercle mostly affecting children, who, of course, lived much on milk, was on the increase, while tubercular diseases as a whole had diminished in recent years in Scotland. Concluding his remarks, he said that if they wished to eradicate tuberculosis they must aim at the causes that led to infantile tuberculosis. The first thing to do, so long as milch cows were allowed to remain in dairies, was to boil all milk used for children, and the next thing was to agi-