

burned after a case of infectious disease must be brought by the vans of the sanitary department. The carpet-cleaning machinery and the arrangements for disinfection by steam, by chemicals, and by boiling I cannot here describe. As net results of the sanitary work may be mentioned, the almost entire extinction of some of the worst forms of contagious disease, and a mastery of the situation which leaves comparatively little fear of widespread epidemic in the future, in spite of the fact that Glasgow is a seaport, has an unfavorable climate, and has an extraordinarily dense and badly housed working population, with, too, the steady decline of the total death-rate, and its remarkably rapid decline as regards those diseases at which sanitary science more especially aims its weapons.

#### THE DANGERS OF INFECTED MILK.

Dr. Russell, medical officer of health of Glasgow, lectured on the subject "Some Relations of the Business of the Dairy Farmer to Public Health" to the members of the Glasgow and West of Scotland Agricultural Discussion Society, on January 15th 1890, (British Medical Journal). Dr. Russell began by explaining how milk, while only one of the many media for the transmission of disease, was the most dangerous, since it was capable of affording nutrition for the propagation of the disease as well as its distribution. He referred to Lister's experiments as proof of the fact that in the milk of the healthy cow there was no inherent putrefactive or fermentative property. Consequently the reproduction of the conditions of Lister's experiments as far as possible in the dairy farm was the guarantee of the public safety—the pure air of the country, the carefully washed teats of the cow, the clean hands of the dairymaid, and the carefully washed dishes. Dr. Russell next spoke of scarlet fever, enteric fever, and tuberculosis in relation to milk. Since 1857, 69 epidemics of enteric fever traceable to milk had been recorded, affecting 3,900 persons. The epidemics of scarlet fever due to milk showed that the existence of a family of young children at a

farm implied a constant threatening of possible mischief to the farmer or milk agent, and demanded constant and suspicious circumspection as to health, not only of the actual workers, but of their families; while the epidemics of milk scarlet fever, not traceable to infection of the milk from a human source, led him to the practical conclusion that milk produced by a cow which was not absolutely healthy, constitutionally and locally, should not be used as human food. The slightest disease in any cow should be accepted as a sufficient reason for excluding the animal's milk from the common stock. Dr. Russell referred to the recent American investigations, tending to show that the bacilli of tuberculosis were present and active, in a very large proportion of cases, in the milk of cows affected with tuberculosis, but without discoverable lesion of the udder, and urged upon farmers the duty of diminishing tuberculosis by giving cows increased air space and better ventilated byres, by judicious feeding and milking and scrupulous cleanliness of the hyre and the cow itself.

#### VENTILATION AND MICRO-ORGANISMS.

Dr. Richard Stern says (Archiv. f. Hygien) that in still air particles of dust containing bacteria are deposited on the floors of rooms, and the atmosphere becomes almost free from germs in one or two hours. If the floor and the furniture are then washed with an antiseptic solution, the room may be regarded as disinfected. A system of ventilation which enables the air contained in a room to be renewed about four times every hour, has very little influence in carrying away the germs floating in the air. A strong draught which changes the air seven times within an hour, secures rapid and complete removal of the germs from the room. Attempts to throw down the germs in still air by the introduction of steam into the room give no satisfactory results, and sprays are also worthless for the purpose of disinfection of the air. The ordinary customary ventilation of clothing, bedding and carpets is useless, unless they are at the same time brushed and beaten.