

agency by a previous inadequately isolated case of scarlatina at the farm or dairy. The cows were either milked by a person who was attending on a scarlet fever patient, or by one who had the disease in his family, or by one who was himself suffering from scarlet fever in a mild or disguised form; and occasionally the milk appears to have derived its infective quality from being kept in a room in which clothes or refuse matter from the sick have not been disinfected. There is no evidence of this disease being conveyed by water nor by the air, inasmuch as it does not appear to spread in the neighborhood of fever hospitals; and, at present, there is little evidence to show that this disease has any definite relation to the soil.

In Britain, even before the year 1881, numbers of scarlet fever milk epidemics occurred and were described by Ballard, Buchanan, Jacobs, Robertson, Darbishire, and many others. In the transactions of the International Medical Congress, 1881, Mr. Earnest Hart tabulated these, giving particulars of fifty epidemics of enteric, fifteen of scarlet fever and six of diphtheria, including in all some 4,800 cases of infectious diseases—all traced to an infective or supposed infective quality of the milk; and since that date numerous other epidemics have occurred in which milk was the vehicle of conveyance of the infection.

In the United Kingdom these milk epidemics are now so easily recognized since the classical investigations of Ballard and Buchanan that there is hardly a Health Officer in the country who has not had the opportunity, even during a comparatively few years of office, to himself investigate and become acquainted with such epidemics. As evidence of the truth of this statement, let me cite my own experience during a year's work, 1900-1901, as assistant to Dr. A. K. Chalmers, M. O. H., Glasgow. During that year there were two milk epidemics of scarlet fever that came under the notice of my chief, and I personally, along with another assistant, Dr. Knight, now M. O. H., Scarborough, was instrument in working out and finding the source of infection in one of these. In this epidemic we found in the Gorbals' district in Glasgow quite a large number of scarlet fever cases occurring almost simultaneously in different and distant households. These had no inter-communication with one another in most instances, either by school, church, or visitors. These sporadic cases appearing, with no definite source for infection from other scarlet cases, led us to think at once that the milk supply was the vehicle of contagion. In this particular instance we found, as nearly as I can remember, that upwards of fifty cases of scarlet fever had developed within two days; and in almost every one of the first cases we traced the milk supply, through several different city vendors, back to one common source of supply, a dairy farm in Lanarkshire where a family had suffered from scarlet fever, and where