

doubt, examples of secondary septic infection. To this class apparently belong the remaining cases of the table, including our own.

The case here reported at length presented on admission all the signs of an intense intoxication; extreme prostration, somnolence, high fever, muscular twitchings, delirium, coma, and eventually death. The digestive disturbances were decidedly in the background, thus showing that the activity of the process was more directed to the central nervous system. And there is, indeed, some ground for believing that where the intestinal lesions are slight or absent, the nervous phenomena are both relatively and absolutely more intense.

When we come to the etiology of such cases we enter upon more debatable ground. The usual channel of inoculation is, of course, the alimentary tract, but it is abundantly attested by several observers notably Roux and Sieard, that inoculation through the air-passages is by no means uncommon. Sieard, indeed, thinks that at least 10 per cent. of all cases come about in this way. Roux has noted that in barracks, epidemics of typhoid among the troops often coincided with the process of cleaning the walls and floors. Dufrand also has reported an epidemic where infection was carried by the dust in a building, and the disease only died out on a thorough disinfection of the building with sublimate. Cases occurring along the line of excavations are also known. In this particular, the experiments of Sieard are suggestive. He caused typhoid patients to exhale into flasks of sterilized water, and in nearly every case was afterward enabled to cultivate the Eberth bacillus from the flasks. The results of such experiments, when they appear to contradict our commonly accepted views as to the infectious nature of typhoid, must be accepted with some reserve, until other investigators corroborate them and place the matter beyond a doubt. It would seem probable at first sight that when the infection was acquired through the respiratory tract atypical typhoid would result, and it is by no means improbable that in such cases the brunt of the disease would fall upon the lungs, and that the intestines might only be slightly affected or not at all. In the absence of further information we are, however, unable to speak with any certainty upon this point. There is no doubt, however, that the *B. Typhi* have often been found in the lungs. Certainly the action of the *B. Typhi* at times analogous to that of other germs, notably the micrococcus lancolatus, the gonococcus, the colon bacillus, and the pyogenic cocci, renders it altogether likely that some of these rare cases may be due to an unusual mode of origin. In our own case, however, we are enabled in all probability to exclude an origin through the respiratory tract, for the pneumonia which was present was clinically