

lent fits of coughing, followed by an abundant expectoration of blood, and then by death. This was the pulmonary plague. The malady spread with fearful rapidity. The Mongolian peasants, terror-stricken, fled from their villages, and many of them, making their way to the railway that runs to Kharbin, carried the germs of the disease into Manchuria. There the Chinese received the infection, and suffered in enormous numbers; but they did their best to conceal the existence of the epidemic, and by this means precious time was lost in which it might have been possible to suppress the scourge there and then.

When, at last, the Chinese gave the alarm to the Russian authorities, the rigorous measures that were taken—the isolation of the infected, the burning of the dead and of contaminated dwellings, the institution of quarantine stations for those who had been liable to infection—could no longer cope with the epidemic. When an outbreak occurred at Wetianka, on the Volga, in 1878, the Russian peasants were absolutely inhuman in the violent steps they took to drive away from all human companionship people who had merely been in an infected area. And this was an outbreak of bubonic plague, which is much less infectious than the pulmonary variety. The Chinese peasant, on the other hand, rebels against all attempts at isolation; and the epidemic is spreading, not in a few scattered villages, as was the case in Russia, but in densely populated districts. The local conditions, too, are peculiarly favorable to the spread of the epidemic. Dr. Matignon, describing the condition of things in Manchuria recently, pointed out that, in the winter, the dwellings are crowded, every room accommodating a large number of people. Every door and window is kept tightly closed, and every opening blocked with paper. They are heated by a long, low stove that is used by everybody as a kind of camp-bed. Amid such surroundings any complaint that can be propagated by expectoration, or through the instrumentality of parasites, can hardly fail to spread rapidly.

The characteristic feature of the epidemic is the extreme virulence of the germ, and very few people who are attacked by it recover. In Manchuria, according to Dr. Paul Haffkine, pulmonary plague is produced by a bacillus that does not differ in species from that which pro-

duces bubonic plague. Many methods of treatment have been tried—the Yersin serum, collargol, the new “606” remedy, and others—but none have proved effectual. Of the crowd of patients whom Haffkine himself treated in the course of a fortnight, not one recovered; and the majority of the sufferers are men of from twenty to forty years of age, and those who have the slightest tubercular tendency become the easiest victims of the disease.

The rapidity with which the epidemic has spread has been remarkable. On October 29, on the Russo-Chinese frontier and Manchuria, 26 cases and 15 deaths were reported. Three days later 178 people had been attacked; by November 8 the epidemic had reached Kharbin; by the end of the month 526 cases and 524 deaths had been reported. Since then the victims have been numbered in thousands. On January 1 two cases developed in a train on the South Manchurian Railway, which is under Japanese management. By the 5th there was one case, and by the 8th there were 13 cases at Mukden. The Japanese are making desperate efforts to stem the spread of the epidemic, and the infected area is gradually being isolated, though the Chinese sufferers themselves put every possible obstacle in the way. The work is made difficult, of course, by the fact that the disease cannot be detected in its early stages. After many years of discussion and doubt, Haffkine has convinced himself that the period of incubation is six or seven days; and in that time, of course, an infected man may travel many thousands of miles, carrying the disease with him quite innocently.

It is not likely, however, that the epidemic will spread to very distant countries—to western Europe, for instance—though the danger would be greater if the epidemic worked its way stage by stage, establishing centres that came gradually nearer. The season of the year, too, makes this less probable, for, unlike cholera epidemics, which flourish in the summer, great epidemics of plague have always developed in the winter. A diminution of an epidemic by the return of warm weather does not necessarily mean its suppression, however. It is found that, in spite of every precaution, plague does not entirely disappear from a locality in which it has once been seriously epidemic—as, in the case of bubonic plague, we have seen in India and