

opponents, while admitting this fact, say all this is due to sanitary reform and modern methods of dealing with contagious diseases. Let us look at the measles, then. From 1760 to 1770, the death-rate from measles was 12 per 1,000 from all causes. This gradually rose until 1830, when it reached 45 per 1,000; in the decade 1880-90 it was 36 per 1,000. This does not look encouraging from the standpoint of sanitation alone.

Now let us take up the third proposition, which we have partially proven. I will first call your attention to Dr. Bizzozzi's now celebrated lecture, delivered in Rome. He says, "Germany stands alone in fulfilling, in a great measure, the demands of hygiene. Having, in consequence of the calamities of the small-pox epidemic of 1870 and 1871, enacted the law of 1874, which makes vaccination compulsory in the first year of life, and revaccination obligatory at the tenth year, what was the result? With a population of 50,000,000, having lost 143,000 lives by small-pox, she found by her law of 1874 the mortality diminished so rapidly that to-day the disease numbers only 116 victims yearly; and these cases occur almost exclusively in towns on her frontier. If it were true that a good vaccination does not protect against small-pox, we ought to find in small-pox epidemics that the disease diffuses itself in the well-vaccinated as well as the non-vaccinated countries. But it is not so. In 1870-71, during the Franco-German war, the people inter-penetrated each other. The German having its civil population vaccinated optionally, but its army completely vaccinated, while the French (population and army alike) were vaccinated perfunctionally. Both were attacked by small-pox. The French army lost 23,000 soldiers by it, while the German, 278; and in the tent, breathing the same air, the French wounded were heavily attacked by it, while the German wounded having been vaccinated, had not a single case."

Note the following:—These died annually from small-pox per every million of inhabitants:

Locality.	Before Vaccination.	After Vaccination.
Sweden.....	2,050	158
Austria.....	3,095	841
Toront.....	14,046	182
Moravia.....	5,402	255
Silesia (Austria).....	5,812	198
Prussia (Eastern).....	3,321	56
Berlin.....	3,422	176
Copenhagen.....	3,128	236

In other words, the mortality of Copenhagen, after the introduction of vaccination, was only one-eleventh of what it was before. In Berlin one-twentieth, and in Sweden one-thirteenth.

The remarkable diminution in the small-pox death-rate, especi-