

In Warrington (1892-3), of 64 revaccinated inmates of infected houses eight, or 12.5 per cent., were attacked, while in the same houses were 41 who had primarily had smallpox, of whom five, or 12.1 per cent., had a second attack of smallpox, and it is to be noted no deaths occurred among either of these two groups.

#### *Compulsory Revaccination in Germany.*

The introduction of compulsory vaccination into Germany was largely brought about by the great difference vaccination and revaccination produced in the German army in respect to smallpox, as compared with the results in the army of France, which was but poorly vaccinated. A comparison of the mortality from smallpox since 1875 in the five large German cities compared with four large cities outside of that country is most instructive, as showing the difference in death rate between vaccinated and unvaccinated cities.

#### *Revaccinated German Cities Lower Death Rate Than Those of Other Unvaccinated Cities.*

During the first decade after the introduction of revaccination (1875-1884), there died from smallpox on a yearly average per 100,000 inhabitants:—

Berlin, .....	only 1.16 persons.
Hamburg .....	" 0.74 "
Breslau .....	" 1.11 "
Munich .....	" 1.45 "
Dresden .....	" 1.03 "

While in the same time the rates were:—

Paris .....	26.24 persons
St. Petersburg .....	35.82 "
Vienna .....	64.90 "
Prague .....	147.90 "

The figures show the rate of mortality from smallpox in German cities is extremely small as compared with Paris, St. Petersburg, Vienna and Prague.

From a recent communication, 1896, of the German Imperial Board of Health to the Reichstag, we learn that for the years 1886-1891 the annual death rate from smallpox throughout the Empire averaged 126, and that only 2.3 persons per million inhabitants from 1889-1893 died of the disease; while calculated in the same way the French cities show a death rate per year of 14.7 persons; Belgium, 252.9; Austria, 313.4; Russia (1891-1893) of 836.4. In other words if the mortality of Germany had been as great as in these countries, there would have been (instead of only 126) no less than 7,321 deaths.

#### *Comparison with Vaccinated Army.*

While vaccination was enforced in the German Army, it must be remembered the law of compulsory vaccination throughout the empire was not passed until April 8th, 1874, hence a comparison is possible as between the nation and the army. During 1871 there were 59,839 deaths from smallpox in the whole country, as compared with 459 deaths in the entire army domiciled both in Germany and France. The figures, however, are still more convincing in favor of vaccination when a comparison is made between the army and the City of Berlin, whose population