## SMALLPOX—NOTES ON EIGHTY-NINE CASES.

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Of these eighty-nine cases, 3 occurred in Toronto in 1892; 4 in Kent County, 1898; 6 in Leeds County, 1899; 51 in Tilbury West, 1899; 19 in Toronto Junction, 1900; 6 in Carleton Place, 1900. There were four deaths, two at Carleton Place and two in Leeds County. There were a number of outbreaks along the line of the C.P.R. at the time of the outbreak in Carleton Place. All these cases could be traced to the same source, and about the same death rate was maintained throughout, viz., one in three. Two of the four fatal cases were of the hemorrhagic type, and two of the confluent variety. Of the hemorrhagic cases, one died on the fourth day, and one on the tenth day of the disease. Of the other two fatal cases, both died on the thirteenth day. One of these became ill on the eleventh day of exposure. Of the eighty-nine cases, thirtyfour occurred in vaccinated persons, and fifty-five in unvaccinated persons. In many of the vaccinated, twenty or thirty years had elapsed since vaccination. In all the vaccinated persons the disease was of a mild type, with one exception. This person had a very small cicatrix. She had been vaccinated about thirty years previous to the time of exposure. Of seventy-seven vaccinated persons known to be exposed, thirty contracted the disease. Of forty-nine unvaccinated persons exposed, forty contracted the disease.

In some instances the protective influence of vaccination appeared to be very marked. For example, in one large boarding-house in Toronto Junction there were twenty-nine persons; of these, eighteen were vaccinated and eleven were not vaccinated. All were freely exposed to the disease, as thirteen cases occurred in the house. Of the eleven not vaccinated, ten contracted the disease. Of the eighteen vaccinated persons, three contracted the disease. These three cases were very mild; several of the others were moderately severe, and three were of the confluent type. Of 126 persons known to be exposed, not one having a well-marked cicatrix contracted the disease.

In one family, in which occurred a fatal case of the hemorrhagic type, two children, aged 3 and 5 respectively, and a girl aged 17, all unvaccinated, escaped the disease, though exposed for twenty-four hours after the rash appeared. In another family, a baby aged 8 months, and unvaccinated, slept with the patient three days after the rash appeared, but did not