

In 1814, the opinion that the vaccine lymph gradually lost its power by successive human transmissions was put forward by Dr. Kinglake, who recommended that fresh lymph should be taken as often as possible from the cow.

In 1818, the Government of Wurtemberg, in deference to this opinion, endeavored to provide for a renewal of the virus from *animal vaccination* by directing that a certain number of cows should be vaccinated annually.

M. Brisset of France and Dr. Gregory of England endorsed this view in 1823. In 1836, Dr. Gregory wrote as follows: "The lymph in use at this Small-Pox Hospital, (London) has been preserved in uninterrupted descent for a very long period of time; but for three or four years past I have noticed that its intensity was diminished, and that eight or ten incisions produced not more irritation than the three to which I was accustomed fifteen years ago. In March last (1836) the resident surgeon obtained lymph from a new source. This new lymph was found to be more intense and active than the old. Three or four incisions are now found amply sufficient, and so satisfied was I of the superior quality of this new lymph, that, after a careful trial of about two months, the old (Jennerian) lymph has been suffered to die out, and for the last six months we have vaccinated exclusively from the new stock. These facts have convinced me that vaccine lymph, in passing through the bodies of many persons, loses in process of time some essential portion of its activity. It follows from this, that an occasional resort to primary lymph from the cow

ence of *two distinct diseases* which occur on the teats of the cow. One, the genuine cow-pox pustule, of rare occurrence, and one of more common occurrence, namely, suppurative sores from wounds, stings of insects, cracks, &c. Jenner says: "Pustulous sores (he does not say pocks) frequently appear spontaneously on the nipples of the cow and instances have occurred, though very rarely, of the hands of the servants employed in milking being affected with sores in consequence, and even of their feeling an indisposition from absorption. These pustules are of a much milder nature than those which arise from that contagion which constitutes the *true cow-pox*.....They are always free from the *bluish* or *livid* tint so conspicuous in the pustules in that disease. No erysipelas attends them. This disease is not to be considered as similar in any respect to that of which I am treating, as it is incapable of producing any specific effects upon the human constitution. It is of the greatest consequence to point it out here lest the *want of discrimination* should occasion an idea of security from the infection of small-pox which might prove delusive." Thus clearly discriminating between two distinct affections occurring on the cow.

becomes a matter of the greatest importance, perhaps even of indispensable necessity."

In the same year comparative experiments were made in France by the Vaccine Committee of the French Academy, which led to a complete abandonment of the opposite view which had been strenuously maintained by M. Bousquet and others, and gave a solid basis to the opinion.

In 1838, Dr. Estlin of Bristol wrote as follows, speaking of the old or Jennerian stock: "On the diminished anti-variolous powers of the present stock of vaccine matter I need make no remark, the public are too painfully aware of the fact." This remark is applicable to Montreal.

In Germany Drs. Medicus and Orgy noted the gradual changes in the cicatrices following vaccination as being less perfect.

In 1839 Dr. Stewart compared results in India with old and new virus, giving in detail his observations as follows: "The period of latency was much longer. 2nd. The vesicles are larger and have globular disc more exact and circular, contain clearer lymph and more of it, and have a central depression from outset. Third. The areola is more decided and larger, the color and formula strictly Jennerian. Fourth. The constitutional fever is well marked. Fifth. The course of the disease is slower and more deliberate.

A Dr. Straub, of Germany, is stated to have vaccinated successfully two children. The lymph furnished by the one produced very fine vesicles, that furnished by the other produced normal vesicles in the first generation, but could not be propagated at all beyond the second remove.

A similar experience occurred to myself not long since. On October 26th I took from a calf at Logan's farm a number of points, with which I vaccinated successfully the child of Mrs. E——, 411 Seigneurs street, from which I collected, on November 5th, a quantity of excellent lymph, all of which gave splendid results, no failures. With the same source of lymph I vaccinated a child of Mr. J—— L——, 121 Canning street, from which I obtained first-class crusts, which gave every satisfaction in further transmission by those to whom sent. I also vaccinated the child of my friend Dr. H—— from this source with excellent results, and from which, on November 11th, I charged about fifteen points which were forwarded on same day to two widely separated points of the country. From both medical men the envelope was returned as unsuccessful. I have not been able to explain the circum-