

inoculated with variolous matter, and the operation be repeated every day till the fever induced by the first insertion supervene, all the other punctures will advance with increasing rapidity: so that the puncture which has been made only twenty-four hours, will, at this period, equal in magnitude the original one, made eight days before. This idea, Mr. Bryce applied to the Vaccine disease; and he found that if a second vaccine inoculation was performed as late as the fifth or sixth day, it was so much accelerated in its progress, as to have the areola formed within a few hours after the first, increasing with its increase, and fading as it faded. This second inoculation is found to run a parallel course with the first, whether there be general fever or not; and this is undoubtedly the case in which a criterion for determining the constitutional affection is most wanted. The most proper time for performing the second inoculation, is about the end of the fifth, or beginning of the sixth day, from the first inoculation. If it be delayed beyond the sixth day, the affection produced by it will be very indistinct, and of short duration; and if performed at an earlier period, the contrast between the progress of the two infections, with regard to duration, will not be so great as may be thought necessary. If the second inoculation is not accelerated, but proceeds in the usual course, it proves that the first was not adequate to produce the constitutional pervasion, and, therefore, the 3d should be performed, as a counter-proof of the efficacy of the 2d.

It may not prove out of place here, (and particularly as it may revive an information, which, although of great importance, has been frequently neglected, if not lost sight of, by young practitioners,) were I to state, that in a Report of 449 out of 500 inoculated cases of Vaccina, many of the characteristics of the Cow-Pox were uniform, there being, first, the appearance of a small red pimple, in three to six days after inoculation; secondly, the gradual growth of it to the state of a circular or oval well-defined vesicle, by the ninth to the eleventh day, of from two-tenths to six-tenths of an inch in diameter, and often surrounded by an erythematous areola, and attended by pain of the axilla, or shoulder; thirdly, the gradual change of the vesicle into a black or dark-red, hard, glossy, prominent, round, firmly-adhering scab, by the fifteenth to the eighteenth day, which, in a week or ten days farther, falls off, leaving a cicatrix for life. This scab, which is not similar to that produced by any other affection, is a real *Anthrax*, or small carbuncle, from a part destroyed by the inflammation excited by the Vaccine virus. The red areola or erythema, is from the irritation of the dying or dead skin; and the cicatrix, is from the sloughing off of the dead part, leaving a cavity never afterwards entirely filled up.

We have also the following observations, as the results of extensive and varied experience, and they go far to controvert opinions often inculcated: That the difference in the effects of the Vaccine lymph inoculated, does not appear to depend on the presence, extent, or absence, of the red areola. And further, that though there be no febrile affection, provided the pock exhibit the distinctive characters of the Cow-Pock, *even without areola*, with the usual courses of the stages, the susceptibility to the Small-Pox will be as effectually destroyed, as if there had been considerable febrile affection, and extensive areola.

In submitting the above paper to the profession, we ought not to overlook the calamitous consequences now before us, from the inoculation with the Small-Pox, lamentably affording a constant source of infection throughout the rural sections, and thereby increasing the rapidity of its march. It is, however, a subject, which, from its bearing so intimate a relation with the preservation of the public health, and, as embracing in its extent, the whole of society, ought to fall within the province of Government, whose bounden duty is, at all times, to remove or diminish, through the most vigorous and effective means of its legislative authority, whatever evils result from the social state itself.

Could there, I would presume to inquire, be a greater anomaly in the codes of our Legislature, when, in its pages, we are instructed that thousands of pounds are annually expended for *preventing the introduction of contagious diseases* in the Province, when one of the most fearful and destructive to human existence is generating within, and is waging its influence, unchecked by the same legislative capabilities!

Yamaska, (near Sorel) 25th Dec., 1845.

* * * Since writing the above, a medical friend (a gentleman to whom I am indebted for some valuable information, and who has had the experience of upwards of twenty-five years in Vaccination) informs me, that, of late years, he discovered that in numerous cases which had borne the distinctive properties of genuine Cow-Pox throughout its regular stages, the pustules dried much sooner than formerly, and that the scab fell off at about fifteen days, and sometimes sooner, from the first insertion of the Vaccina.

These observations, corroborate in a great degree the comparative experiments of Mr. Viard, a French Physician, and member of the *Academie des Sciences*, that it is not, as is generally supposed, in the degree of development of the Vaccine pustules on the eighth or ninth day we must look for the degenerescence of the Vaccine matter, but in the progress, and more especially in the duration of the eruption, which diminishes progressively. In 1836, the