

examination of its merits and demerits, brought about by the late epidemic of small-pox in Europe, has given every one an opportunity of judging of its efficacy or usefulness, (we may however, remark, *en passant*, that in this country it has gained no new adherents). The two forms of human vaccination, then, are only to be compared and discussed. Our own experience favors the employment of the dry crust, as practised in the United States, for reasons to be adduced.

It is not generally known that there is a very marked difference in the character of the disease produced by the two forms of vaccination, so marked as at once to enforce the most earnest enquiry. The stages of the vaccination are entirely different in the two modes, and the growth of the vesicle and the period of maturation are entirely dissimilar. In vaccination with liquid lymph, the vesicle begins to form on the third or fourth day, and the areola on the fifth or sixth day; in vaccination with the crust, the vesicle does not commence to form before the seventh or eighth day, and the only evidence to be discovered before that time of the virus having taken is a few small inflammatory points, which make their appearance about the fifth, sixth or seventh day. (The later these points begin to show, the better and more effective is the vaccination). A careful observation of two vesicles produced by the two methods of inoculation will demonstrate that the pustule produced from the dry crust possesses different elements of action, and yields different physiological results. In vaccination with the dry crust, the vesicle does not begin to form, as already stated, before the seventh or eighth day, when constitutional symptoms first become manifest. These symptoms are more general and better marked, though the local irritation is not greater than in vaccination by lymph. The true characteristic areolar test is always to be discovered when the crust is used, but in the case of lymph, particularly when it is taken from the arm at a very early stage, it is not always to be found, a starved, over-inflamed vesicle taking its place. The maturation, too, of the vesicle is different. In vaccination by lymph, the pustule desiccates and falls off about the fourteenth or fifteenth day, or earlier; whereas with the crust this does not usually take place before the twentieth or twenty-first day, and then frequently the crust has to be removed by the operation. The cicatrix, too, is different in the two forms, and this is important, for its distinctive marks are always held as a guide to and test of a true vaccination. When the crust is used, we have a deep, cup-like, foveated, indented cicatrix,