

On the American continent there are now many establishments turning out vaccine, and these are chiefly private. So far as known promiscuous vaccination from arm to arm is no longer a recognized practice. The names of Martin, of Boston, Walsh, of Washington, and Foster of New York, should be mentioned amongst those who earliest undertook to supply a bovine lymph in America.

A minute description of the technique employed in charging the various lymph carriers made use of some years ago with bovine lymph is not necessary. It is enough to note that with only ordinary measures of cleanliness (perhaps in some cases not even those), the points, quills, etc., were charged directly from the animal, nothing being done to counteract the effects of contamination incidental to the process. Points so charged even in the specially constructed stables and laboratories of to-day are found to carry a variety of organisms—some pyogenic—as well as the necessary one. Plate cultivations made from these—I speak from actual experiment—commonly exhibit colonies in very large, almost countless, numbers. Smears show streptococci, staphylococci and bacilli. Doubtless the virulence of these is greatly reduced by dessication, and more or less exposure to light before they reach the patient's arm, but the fact remains that they are not surgically clean.

In 1891 Monckton Copeman introduced his plan of purifying vaccine lymph by mixing it with glycerine, the effect being the gradual starving out of germs other than those of vaccinia, and glycerinized lymph has gradually won its way and proven itself till now there can be little excuse for the use of any other kind.

Through the enterprise of the CANADIAN PRACTITIONER the writer has recently had an opportunity of seeing the methods employed in a number of the leading vaccine establishments of the east, and what follows may be taken, not simply as the results of reading up the subject, but of actual observation of a somewhat extended character. The establishments visited were those of the H. K. Mulford Co., Philadelphia, Penn.; the National Vaccine Farm, Washington, D.C.; Slee's Vaccine Farm, Mount Pocono, Penn.; Parke, Davis & Co.'s Laboratory, Detroit, Mich.; the Ontario Vaccine Farm, Palmerston, Ont., and Stearn's Laboratory, Detroit, Mich. In all of these every facility was given for inspection, and the greatest possible courtesy extended. The Alexander Vaccine Farm at Marietta, Penn., was also visited, but permission to inspect it, unfortunately, could not be obtained. Of its methods the writer has no knowledge.

The proprietors of all the laboratories visited are undoubtedly attempting more or less perfectly to meet the demands