VACCINATION;—THE COMPARATIVE MERITS OF LYMPH AND THE DRY CRUST.

(BY JOHN MORRIS, M.D., BALTIMORE.)

As the public journals announce a new outbreak of smallpox in the city of New York, and as its appearance there is generally a fore-runner of an epidemic throughout the country, it would be well to consider all the causes that lead to its development and the best means to prevent its dissemination.

Our experience of small-pox epidemics is that the German and Irish, vaccinated in the European mode, are principally the sufferers, and though there is a great deal of careless vaccination practised in the United States, we suffer greatly less

than the people of Europe from invasions of small-pox.

The great difference that exists in the views and practice of the profession in this country and Europe in regard to the proper plan of vaccination, has not heretofore been a subject of investigation, nor has it excited the interest which, in our judgment, it justly merits. It is time that this matter should receive the attention of the profession; and our European brethren, in view of the dreadful epidemic which has for the past three or four years ravaged the continent, would do well to make it a subject of inquiry, and see if there be not some defects in their present system of vaccination which may be remedied.

At the outset, it may be premised as a fixed fact that a true vaccination is a certain preventive of variola, and that an outbreak of small-pox can only spring from defective or imperfect vaccination. No medical man of education and experience doubts this proposition. This being admitted, it becomes our duty to see that the fullest extent of protection is secured to the community by the enployment of the best and surest means of vaccination.

There are three forms of vaccination at present employed: first, animal vaccination; that is, with virus taken directly from the heifer. Second, human vaccination, as practised in Europe, in the form of fresh lymph taken from the vaccine vesicle, at an early stage of its development. Third, human vaccination, as practiced in the United States; that is with virus taken from the dry pustule or crust.

As it is our purpose in this paper to discuss only the question of vaccination by liquid lymph and the dry crust, we shall say nothing in regard to animal vaccination. The thorough