

EDWARD JENNER, M.D., AND THE VACCINATION CENTENNIAL.

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The English town of Berkeley, in the County of Gloucester, is not only noted for its famous cheese, known as "Double Gloucester," and for its castle, which was the scene of the barbarous murder of Edward II, but also for having been the scene, a hundred years ago, of the first vaccination, and thirty-five years previous (1749) the birthplace of its discoverer, Edward Jenner.

The important matter was first communicated by its discoverer, in the following letter to a friend:

"Dear Gardner: As I promised to let you know how I proceeded in my inquiry into the nature of that singular disease, the cowpox, and being fully satisfied how much you feel interested in its success, you will be gratified in hearing that I have at length accomplished what I have been so long waiting for, the passing of the vaccine virus from one human being to another by the ordinary mode of inoculation.

"A boy of the name of Phipps was inoculated in the arm from a pustule on the hand of a young woman who was infected by her master's cows. Having never seen the disease but in its casual way before, that is, when communicated from the cow to the hand of the milker, I was astonished at the close resemblance of the pustules. But now listen to the most delightful part of the story. The boy has since been inoculated for the smallpox, which, as I venture to predict, produced no effect. I shall now pursue my experiments with redoubled ardor. Believe me yours very sincerely,
EDWARD JENNER."

Berkeley, July 19, 1796.

This is the event the centennial of which is just now being celebrated in all parts of the world. In Russia a life of Jenner and a medal is to be issued; in Berlin the medical profession will issue a medal; and in Bristol, England, they are celebrating the centennial by acquiring for the city the famous Mockler collection of Jenner relics; while in this country, Baltimore, Newport, the State of Pennsylvania, represented by its health board, and State Medical Society, met at Marietta, on May 22, to celebrate the discovery.

In the city of Brooklyn the medical profession held a banquet on the 14th inst.; there were orations by Bishop Potter, Provost William Pepper, M.D., of the University of Pennsylvania, Prof. William Welch, M.D., of Johns Hopkins University, and others, besides issuing an ornate bronze medal, a picture of which is shown. The bronze medal struck by the Medical Society of the County of Kings was made from an old print of Dr. Jenner. The print was covered with mica and divided off into squares in the manner shown in the small engraving. The large portrait of Dr. Jenner is from a rare German print.*

Of Edward Jenner, the immortal discoverer of vaccination, a writer has said: "Among all the names which ought to be consecrated by the gratitude of mankind, that of Jenner stands pre-eminent. It would be difficult, we are inclined to say impossible, to select from the catalogue of benefactors to human nature an individual who has contributed so largely to the preservation of life and to the alleviation of sufferings."

He was the son of an English clergyman, and he says of himself: "I have been the only one of a long line of ancestors and relatives who was not educated at Oxford." And it may be due to that fact that he early cultivated his powers of observation in the study of nature among his native meadows instead of the classic halls of a university, that his faculties of observation and induction were developed instead of those of erudition and speculation. The other great factor in the development of this man and his great discovery was the fact that he, at the age of twenty-one, became the pupil and assistant of John Hunter, in whose house he resided for two years. This was a fortunate crisis in Jenner's life; the spark of observation was latent in his mind, and Hunter supplied the friendly

breath. The friendship at that time formed continued through the remainder of Hunter's life, and it is noteworthy that the first to describe the pathology of angina pectoris as a disease of the coronary arteries was Jenner, whose studies were incited by the sufferings of his honored preceptor from the disease which terminated his life, and whose coronary arteries were found in the condition that Jenner had predicted. In his earlier days Jenner was somewhat known as a poet, and his poem on the "Signs of Rain" has been frequently reprinted, and shows accurate observation of the phenomena of nature.

As a naturalist he was even better known, and a number of his papers had been well received and published in the Transactions of the Royal Society. That on the influence of the earthworms and their influence



JENNER MEDAL.



METHOD USED IN MAKING THE JENNER MEDAL.

in breaking up the soil and fertilizing it for cultivation was the first to call attention to this now well recognized fact. His researches into the habits of the cuckoo and other birds are often quoted. But we are told when Jenner attempted to lay the subject of vaccination before the society the president gave him to understand that "he had already gained some credit by his communications to the Royal Society, and he ought to be cautious and prudent and not risk his reputation by presenting to that learned body anything which appeared so much in variance with established knowledge and withal so incredible." His first public communication on the subject was in June, 1798, and entitled: "Inquiry into the Cause and Effects of the Variolæ Vaccinæ." Although his attention was first directed to the subject when he was a medical student, previous to 1770, his first successful vaccination was made on the 14th of May, 1796, when Jenner inserted lymph taken from the hand of Sarah Nelmes, who was infected with cowpox into the arms of James Phipps, a healthy boy about eight years of age. On the 1st of July following the attempt was made to inoculate

him with the smallpox virus by introducing the "matter" into his arm, but no effect followed. The importance to humanity of the era which that day (May 14, 1796) began may be appreciated by those who recall the days when the description given of the terrors of the loathsome disease was not an exaggeration. "The smallpox was always present, filling the churchyards with corpses, tormenting with constant fears all whom it had not yet stricken, leaving on those whose lives it had spared the hideous traces of its power, turning the babe into a changeling at which its mother shuddered, and making the eyes and cheeks of the betrothed maiden objects of horror to the lover." A hundred years ago London had a population considerably less than that of Brooklyn to day, yet statistics tell us that smallpox annually destroyed 1,200 of her population; and that Vienna, with less than a quarter of our number, lost in the year 1800 no less than 835. In the city of Paris there were, in 1719, 14,000 deaths from smallpox. In 1768-69 one-half the inhabitants of Kamschatka perished with the disease. In 1733 it almost depopulated Greenland, after having in 1709 carried off more than a fourth part of its inhabitants: and we are told that when the Spaniards introduced their religion into the land of the Aztecs they brought with it the smallpox, which did far more than the cruel swords of Cortez and his band of invaders to "civilize" the country; killing off in one year 3,500,000 of the natives—nearly one-third the number of the present population of the Mexican republic.

There is probably no greater contrast in the whole history of mankind than this picture presents in comparison with that of smallpox in the countries where vaccination is enforced to-day. In the city of Brooklyn we have gone whole years without seeing a single case, and last year (1895) there were but sixteen cases, with one death, among our million inhabitants, and the present year promises as clean a record.

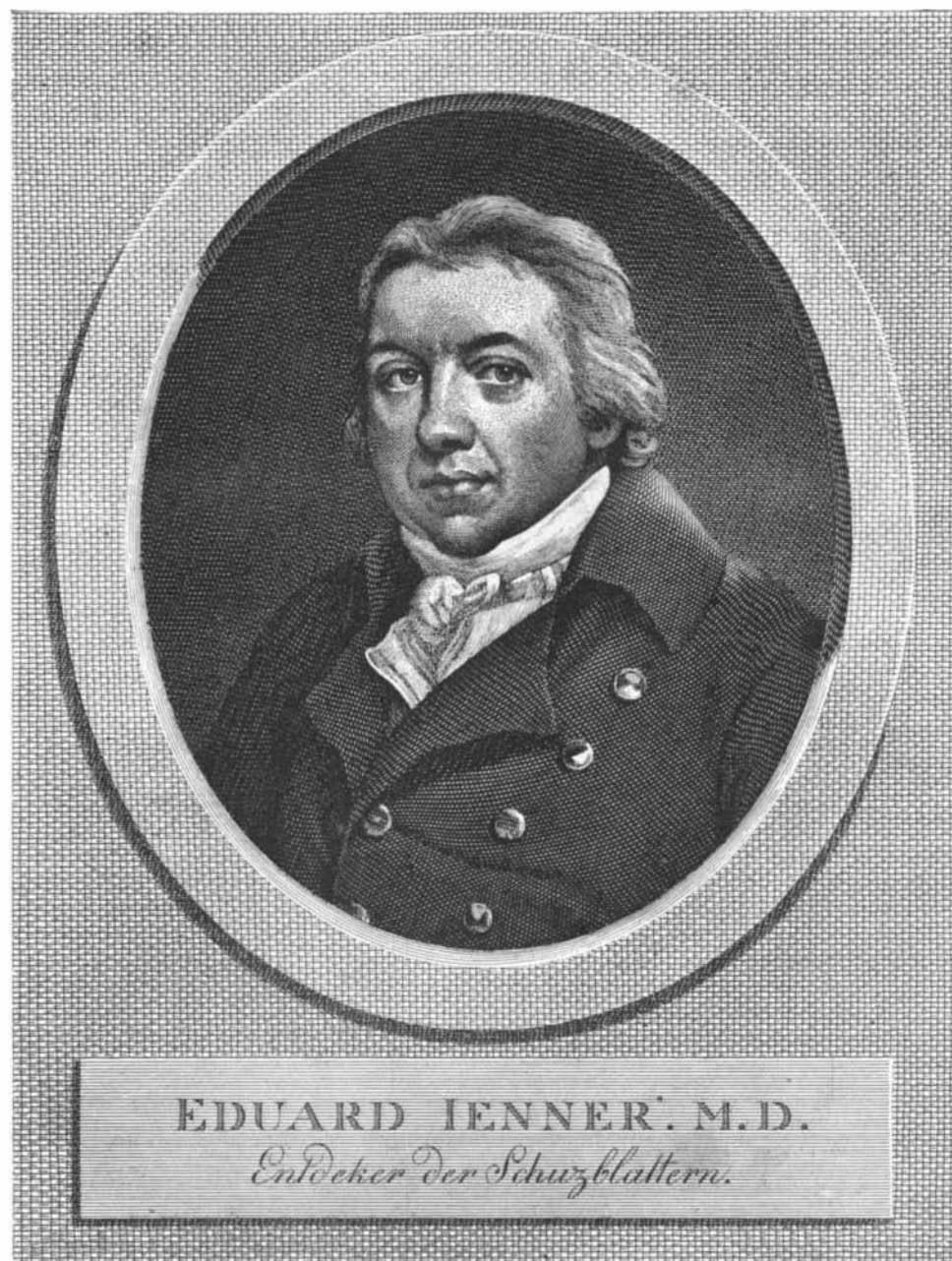
Dr. Jenner died on the 26th of January, 1823, at the age of seventy-four. The following epitaph is inscribed on his tomb:

"Within this tomb hath found a resting place
The great physician of the human race—
Immortal Jenner! Whose gigantic mind
Brought life and health to more than half mankind.
Let rescued Infancy his worth proclaim,
And lip out blessings on his honored name;
And radiant Beauty drop one grateful tear,
For Beauty's truest friend lies buried here."

Color of Uniforms.

Referring to the agitation for the abolishment of the scarlet uniform in England, the Admiralty and Horse Guards Gazette says: "It is so frequently taken for granted that red is the most conspicuous color that could be used for that purpose, that to hear it combated, and with irrefragable arguments, is something of a novelty, even for those who are ready to be convinced in favor of the smarter accouterment. A German officer recently declared that the white coated cuirassiers were more conspicuous even against the snow than the red coats of the Ziether Hussars, and complimented Englishmen on being so practical a race as to embody this fact in the uniform of their soldiers. He further mentioned special experiments on the ranges in corroboration of his statement, the results furnished being three hits to the blue target against one to the red. As a further illustration, a squad of ten volunteers, two dressed in light gray, two in dark gray, two in scarlet, two in dark blue, and two in green, were ordered to march off, and were carefully watched by a number of volunteer officers, and the result attained was as follows: First the light gray disappeared, next the scarlet, then the dark gray, and long after this the dark blue and the dark green were still visible. The importance of these experiments cannot be overrated, and it is to be hoped that they will be followed up until a definite conclusion has been arrived at."

THE railways in France employ 24,080 women, the majority of whom receive a small sum for opening and shutting gates where roads cross the track.



PORTRAIT OF DR. JENNER.

* The prints and medal which we reproduce are from Dr. Hunt's collection of Jenner portraits and medals.—ED.