manner. In order to confirm the doctrine of its prophylactic powers he resolved to have them inoculated with small-pox matter in the most public manner. With this intention he wrote to Dr. Aspinwall, physician to the Small-pox Hospital in the neighbourhood of Boston, requesting him to perform the experiments. This gentleman assented to the proposal. Three of the children were sent to the Small-pox Hospital. One of them, twelve years old, was selected for the trial. Active small-pox matter was inserted by two punctures: an infected thread was likewise drawn through the skin, and the patient then left in the Hospital. On the fourth day there was some slight appearance of infection; but it died away, and left no traces of its action.

The successful vaccinations in Dr. Waterhouse's family soon turned the tide of popular feeling in favour of cow-pox. The zeal of the medical men was excited to an unparalleled degree; but, unfortunately, their discretion did not keep pace with it. They disregarded the cautions of Dr. Waterhouse, and paid no attention either to the state of the matter with which they inoculated or to the progress of the pustule. It appears, likewise, that the cupidity of persons not of the medical profession was stimulated on this occasion, and the manner in which they carried on their traffic was alike indicative of their avarice and their ignorance. The followers of this trade obtained the shirt-sleeves of patients which had been stiffened by the purulent discharge from

an ulcer consequent on vaccination. These they cut into strips, and sold about the country as impregnated with the true vaccine virus. Several hundred persons were actually inoculated with this poison which, in several cases, produced great disturbance in the constitution. These blunders, it is to be feared, were not confined to vagrant quacks, inasmuch as several medical men were not quite blameless in this respect.

Soon after these doings the character of vaccination was much injured from another cause.

A vessel arrived from London at Marblehead. A common sailor on board was supposed to have cowpox: matter was accordingly taken from him, and was used extensively. It was soon discovered that small-pox matter had been employed, and that disease spread rapidly through the neighbourhood.

The occurrences at Marblehead led Dr. Waterhouse to believe that the vaccine virus had degenerated; he, therefore, sent a very urgent request to Dr. Lettsom, begging him to apply to Dr. Jenner for a fresh supply. He stated that he had gained some credit by following Dr. Jenner's footsteps; but that having lost his track he turned to him again for directions. He then adds, "a letter from him, should he allow me to publish it or any part of it, might set this benevolent business a-going again next spring. Could I likewise say to the American public that I had received matter from Dr. Jenner himself, it would have a very good effect indeed."

Dr. Jenner complied with both these requests, and the matter which he sent out arrived early in the spring of 1801. The letter which accompanied it contained a long and satisfactory explanation of the deviations from the regular course of the disease, together with some rules for the successful conducting of the practice. The letter will be found at length at page 110 of Dr. Waterhouse's work on Cow-pox, published in 1802. He forwarded some of this matter to the President Jefferson, in whose hands it completely succeeded. This distinguished individual did not think it beneath him to set an example to his fellow-citizens. In the course of July and August he, with his sons-in-law, vaccinated in their own families and in those of their neighbours, nearly two hundred persons.

Dr. Jenner, while diffusing the Variolæ Vaccinæ to other parts of the world, did not forget our colony of Newfoundland. He had sent matter, through his nephew George, to his friend Clinch at Trinity. This gentleman used it successfully himself and carried it to St. John's, where it was extensively employed by Dr. Macurdy. He, in a letter to Admiral Pole dated December 19th, 1800, mentioned that the practice, notwithstanding some untoward circumstances which had occurred among those who were first vaccinated at Portugal Cove, was followed up with the greatest success. He sent matter to Ferryland, Placentia, and Halifax.

When the Inquiry was published the intercourse between this country and France was almost entirely suspended in consequence of the war. The blessings of the discovery were therefore not so soon experienced at Paris as they probably would have been had better times prevailed.

Vaccination had been pretty extensively practised in remoter cities, and had actually been wafted to the shores of America before it had reached the French capital. I believe the first notice of the subject that appeared in any French writer was contained in the learned and elaborate work of MM. Valentin and Desoteux on the History and Practice of Variolous Inoculation. The discovery of Jenner is mentioned in a note at page 301, where an abstract of some of his opinions is delivered, and the reader is referred to Nos. 69, 70, 71 and 72 of the Bibliothèque Britannique for farther extracts from the Inquiry.

Although the work of MM. Valentin and Desoteux occupied in a particular manner the attention of the "Ecole de Medicine de Paris," it does not appear from their report which was presented to the Minister of the Interior, and which was signed by their president Thouret, that the note which alluded to cow-pox inoculation and the great benefits which were promised from that practice, had excited any degree of curiosity. But this indifference did not continue long; for in the following year (1800) a joint committee was named by the National Insti-

tute and the Ecole de Medicine to obtain information on this most interesting subject. About this time Dr. Colladon of Geneva returned from England to the Continent, and carried with him virus to Paris. With this virus trials were made at the Salpêtriere under the superintendence of M. Pinel. But they unluckily did not prove successful.

The committee, however, appointed by the Institute and the School of Medicine had happily anticipated the effects of this disappointment, and provided against them. They had previously dispatched Dr. Aubert to England, with a series of questions drawn up under their authority, in order to elicit precise and accurate intelligence. Before his return the enthusiasm which warmed every philanthropic bosom in this country found its way to the French capital, and roused a spirit of energy and benevolence which neither the horrors of war nor the agitations connected with a half-extinguished revolution could quench.

M. Larochefoucault Liancourt, who had himself witnessed in England the happy effects of vaccination, laboured with zeal and perseverance to carry them to his countrymen. He commenced a subscription for establishing an institution for vaccine inoculation in Paris. And among the first in the list of names for this honourable purpose were found those of the Minister of the Interior Lucien Bonaparte, and of M. Froshot the Prefect of the Department of the Seine.

The subscription was successful; and the house of Dr. Colon, which he had generously offered for the purpose of a vaccinating station, was occupied on the 5th of April, 1800. The committee appointed to superintend this establishment forwarded an official communication to London, to the Vaccine Institution, for virus with directions for its use; all that had been formerly sent from Geneva and England having failed.

During the time that Dr. Aubert was in London he had frequent intercourse with Dr. Jenner, but he sought his information respecting cow-pox chiefly in the Small-pox Hospital. There he imbibed the prejudices which those who carried on vaccination in that place had adopted; and on his return to Paris he published a report which seemed to sanction the opinion that the Variolæ Vaccinæ were really an eruptive disease. After a short time a true knowledge of the affection was attained in France, and a few successful vaccinations dissipated all doubt and excited a spirit which soon spread a knowledge of the practice to the remotest parts of the kingdom.

The Prefect of the Department of the Seine founded a central hospital for the practice of vaccination. At Rheims, Rouen, Amiens, Brussels, Marseilles, Bourdeaux, &c. &c. associations were formed under the auspices of the Minister of the Interior to promote the same object.

In the month of January 1800, the Count De la Roque, who then resided in London, translated Dr.

Jenner's "Inquiry" into French. This translation was forwarded to Paris, where it was published. It was received with so much avidity that three editions were sold in less than seven months. These facts were made known to Dr. Jenner by the Count in a letter dated August 5th, who at the same time mentioned that he had likewise translated the second memoir entitled "Further Observations on the Cowpock, &c." and was about to send it to France.

From Paris the practice spread into Spain during the latter part of this year (1800). Don Francesco Piguilem, a physician of Puigerde, obtained some virus which was employed with perfect success in the month of December. An announcement of this fact appeared in the Gazetta Real of Madrid of the 6th of January, 1801. The Spanish Government from the first evinced a degree of energy in promoting the practice of vaccination which did not usually mark its other proceedings. Señor de Condado, who represented his Catholic Majesty at the Cisalpine Republic, had previously sent an account of vaccination to his court; and this court, degraded and corrupted though it was, had at a subsequent period the wisdom to plan and the virtue to execute one of the most benevolent designs that ever shed a lustre around the proceedings of any state or government.

On the 3rd of May, 1801, an announcement appeared in the Madrid Gazette of a translation of Dr. Jenner's "Inquiry," and by a letter from Don Lope de Mazarredo to Dr. Jenner dated Bilboa

October 3rd, 1801, I perceive that the new practice had become general throughout the whole country. The feelings of respect for the discoverer were strongly manifested in Madrid at this time, he having been elected an honorary member of the Royal Economical Society. The diploma announcing this distinction was not received by him till some years afterwards.

The rapidly increasing interest attached to the subject of vaccination brought with it a daily addition to Dr. Jenner's labours. The service to which he had devoted himself was that of mankind, and it was chiefly to him, in this stage of his proceedings, that foreigners as well as his countrymen looked for information and guidance. He was not, however, without zealous friends. Among these no one proved himself a more judicious and enlightened champion of vaccination than Mr. Dunning of Plymouth-dock. He at this time published his "Observations on the Inoculated Cow-pox." While preparing this treatise he had occasion to write to Dr. Jenner. The correspondence which was thus begun continued with little intermission; and I am certain that few of those with whom he held intercourse enjoyed a greater share of his esteem and attachment than did Mr. Dunning.

During the following year Mr. Dunning, at the instance of the Medical Society of Plymouth, applied to Dr. Jenner to sit for his portrait to Northcote. With this flattering request he was induced

to comply; and it now adorns their hall. A mezzotinto engraving was subsequently made from this painting: it wants the peculiar expression of Jenner's countenance, and does not faithfully display his manner; but, on the whole, it is a better portrait than some which have appeared since.

Early in July this year a mission of a peculiarly interesting nature took its departure from England, in order to carry the Variolæ Vaccinæ to Gibraltar and Malta, and from thence to all the nations bordering on the Mediterranean. Dr. Marshall, who had so much distinguished himself by his successful vaccinations at Stonehouse, and Dr. John Walker undertook this office. They sailed from Portsmouth on the 1st of July under the sanction of the British Government, and with special letters of recommendation from his Royal Highness the Duke of York to our military governors on foreign stations. On their arrival at Gibraltar they vaccinated eleven seamen on board his majesty's ship Endymion; and all the soldiers of the garrison who had not had the small-pox. A certificate of the latter occurrence was transmitted by the surgeon-major to the commander-in-chief, the Duke of York.

The following letter from Dr. Marshall gives so interesting an account of their progress, and is at the same time connected with so many public events of a highly momentous nature, that I cannot forbear presenting it to my readers.

## DR. MARSHALL TO DR. JENNER.

My DEAR SIR,

Since my last letter to you from hence the progress of the cow-pox inoculation has been rapid, and is now generally adopted, I may say without exception, in this Island; the governor has also patronized an institution for the cowpox or Jennerian inoculation, the rules of which I shall transcribe and send you with this. At Gibraltar, where we made our first essay after leaving England, and where we were received with the greatest attention by the governor General O'Hara, we were gratified with observing the cowpox proceed in the usual mild, and easy progress to its termination as in England; nor did we perceive that the unusual heat of the climate (in the month of August) in the smallest degree aggravated the symptoms, though the soldiers of the garrison continued their fatiguing duties as customary previous to their inoculation, nor was any alteration made either in their diet or allowance of wine. The children of the inhabitants also experienced its mild and gentle progress, nor in any one instance were its symptoms in the least aggravated.

The morning after my arrival, Lord Keith issued the following general memorandum to the fleet.

" H. M. Ship Foudroyant, Gibraltar Bay, Oct. 19th, 1800.

## "GENERAL MEMORANDUM.

"Any soldiers, seamen, or marines in the Fleet, who may not have had the small-pox and wish to avoid that dreadful malady, may by application to Dr. Marshall on board the flag ship, be inoculated with the cow-pox, which,

without pain or illness, or requiring particular diet or state of body, or leaving any marks, effectually excludes all possibility of the patient's ever being affected with the smallpox.

"By command of the Vice-Admiral, (Signed,)

PHILIP BEAVER.

To the respective Captains of the Fleet."

Immediately after the issuing of this order its effects were almost rendered nugatory by the dispersion of the fleet to several different rendezvous: of course the practice was confined to a few ships in Gibraltar and Teteran Bays; however, upon arriving at Minorca, it was introduced into several other ships of the fleet, and I found the inhabitants eager to avail themselves of it.

The morning after I arrived at Mahon I inoculated several children, and so anxious was I to give a proof of its efficacy that, on the fourth day after the insertion of the matter of the cow-pox, I inoculated the patient with the variolous matter (taking him into the room, and to the bedside of a patient in the small-pox at its height) in the presence of the physicians, surgeons, and principal inhabitants of Mahon. This trial so publicly made, and from which the little vaccinian came off triumphant, firmly established its character in Minorca; and as the small-pox at the time was proceeding with rapidity, patients daily falling victims to its horrid ravages, every one became anxious to participate in this most happy discovery, calling down blessings upon the head of its promulger to the world.

At Malta I again joined my friend Dr. Walker, and as the small-pox had made its appearance on board the Alexander and other ships lying in the harbour when the fleet arrived, several of the seamen of which ships had already died in the disease, the admiral became alarmed in the probability that so dreadful a malady would spread through the whole fleet which, in its then crowded state, would be attended with great hazard to the lives of a number of brave seamen, and ultimately the exertions and services of the fleet in the expedition upon which it is now employed: he therefore immediately issued the following order:—

[This order is exactly similar to the foregoing.]

The army under the command of Sir Ralph Abercromby being in general landed, he became anxious for their safety upon their returning on board again, as, should the small-pox contagion break out in the army, it was probable a great number of brave men might be snatched by its dreadful effects from the service of their country. He therefore gave orders for the general inoculation of the army with the cow-pox; this in some measure was carried into effect, but as their stay here was too limited to permit the inoculation of the whole, either of the army or navy, Dr. Walker proceeded up with the expedition.

Since Dr. Walker has left this I have been fully employed inoculating the inhabitants of this island, who through the laudable exertions of the governor Captain Ball have universally adopted the practice; several of our cow-pox patients have been subjected to the test of the small-pox but without effect; and as the small-pox is now in La Valette, the anxiety of the inhabitants to participate in the benefit of the Jennerian inoculation is great indeed.

The last part of your treatise has been translated into Italian, and is now printing here. The two former parts will also be translated in a few days, as also a short ad-

dress written by me at the request of the Governor and distributed through the island. These I shall do myself the pleasure of sending to you by the first conveyance. The establishment of an institution here for the inoculation, and the name given to it of the Institution for the Jennerian Inoculation, will in a small degree serve to show you the high respect and gratitude they feel to you for the benefit they are enjoying from your discovery. The world will speedily follow the example of this little island, and do justice to the man who has conferred the greatest possible benefit upon society.

From hence, as soon as I have inoculated the troops now here under the orders of General Pigot and with which I am now employed, I intend to proceed to Palermo and Naples, at which places the introduction of the Jennerian inoculation is anxiously expected; from thence I intend doing myself the pleasure of again writing to you, and in the interim I beg to subscribe myself,

My dear sir,

Your obliged friend,

J. H. MARSHALL.

La Valette, January 7th, 1801.

Dr. Marshall continued at Malta from December till the ensuing March, during which time (to use the words of Sir Alexander Ball in his certificate to Lord Hawkesbury) he rendered the most essential service to the inhabitants by the introduction of the vaccine inoculation, by which the ravages of the small-pox, so dreadful in this climate, were prevented. Sir Alexander added "I further certify

that he has performed this service, without receiving any pecuniary reward from me, as I conceive that the British Government know best how to appreciate and remunerate his services."

Before they left the island Drs. Marshall and Walker, with Drs. Caraccini and Cassar, had the satisfaction of laying the foundation for a vaccine establishment, under the patronage of his excellency the governor.

From Malta Dr. Marshall went to Naples and Palermo, where he resided several months. When he was about to return to England the King of the two Sicilies directed General Acton to deliver him an introductory letter to the Prince Castelcicala, then Ambassador at the British court, expressive of his majesty's satisfaction with his successful labours and conduct; and desiring that those sentiments might be communicated to the British Government; and that the prince himself should do all the best offices in his power to Dr. Marshall.

Copie d'une Lettre du Prince Castelcicala, à Milord Hawkesbury, du 25 Fevrier, 1802.

J'ai l'honneur de remettre à votre Excellence copie d'une depêche que Monsieur le Chevalier Acton m'a écrite par ordre de Sa Majesté Sicilienne.

Les deux Siciles ont une grande obligation au Docteur Marshall pour y avoir introduit et propagé avec le plus grand succès l'inoculation de la vaccine. Votre Excellence sera certainement très aise que l'on doit cette obligation à une sujet Britannique; j'ose recommander à sa puissant protection une personne aussi digne, et à qui le Roi mon maître a témoigné d'une manière non équivoque toute sa satisfaction.

Jai l'honneur d'être, &c. (Signé) CASTELCICALA.

Dr. John Walker proceeded with the expedition under Sir Ralph Abercrombie to Egypt; he vaccinated all the seamen and soldiers of the expedition, and received both from the admiral, and from the commander-in-chief, very strong testimonies of his zeal and success in the new practice. When we consider how many great results hung upon the issue of this expedition it is not too much to assert that a practice, which so effectually protected our gallant troops from that dire enemy the small-pox, must have materially contributed to the success of this campaign at once so glorious and so important to England.

Dr. Marshall returned from his interesting expedition in January 1802. Some extracts from an account of his proceedings, transmitted from Paris on his way home, will be read with satisfaction.

DR. MARSHALL TO DR. JENNER.

Paris, January 26th, 1802.

MY DEAR SIR,

Having finished my vaccine tour I am at length arrived at Paris on my way home. You have doubtless received my letters from Gibraltar, Minorca, Malta, Sicily, and Naples, in which I informed you of the progress made in the extension of the vaccine inoculation.

I will now just give you, knowing it must be pleasing to its discoverer, an account or rather sketch (for I shall not trouble you with detail) of what I have been doing since my departure from England in his Majesty's ship the Endymion, in July 1800.

The first trial was made upon a black, a seaman on board the vessel, with matter sent me by my friend Mr. Ring. It perfectly succeeded, and from his arm several more of the crew were inoculated; amongst the rest a marine, who on the eighth day of the disease got drunk with spirits, and fell asleep upon the muzzle of one of the guns on the outside of the vessel; in this state, as is supposed, a sudden heel of the ship threw him into the sea, where he must have perished had it not been for the very active exertions of Mr. Valentine the first lieutenant, who, to his honour, regardless of every thing but the preservation of the life of a fellow-creature, immediately leaped overboard from the mizen chains, not even taking time to strip off his coat, and had the happiness, after a considerable struggle, to bring him on board apparently lifeless, in which state he continued for some time.

So singular a circumstance occurring at this particular period of the disease naturally excited my attention, and I attentively watched the progress of the vaccine pustule, not knowing what would be the result of such an accident in this stage of the complaint, and I found that for about twenty-four hours, during which time he experienced a slight degree of fever occasioned by the quantity of liquor he had drunk and the means used to recover him, the cow-pox appeared to be stationary; but afterwards went through its regular course as in the others.

The cow-pox was introduced at Palermo, in the

island of Sicily, where the ravages of the small-pox had always been experienced with unusual violence, and in which city eight thousand persons had perished the preceding year from that destructive malady alone.

Here it was also adopted with enthusiastic ardour, and from the very gracious reception with which His Majesty was pleased to receive me, added to the very laudable exertions used in its favour by the Government, its practice soon became general; though not before it had undergone every possible test of its preventive powers in resisting the infection of the small-pox both by inoculation with variolous matter, and by exposure of the cow-pox patients to patients in the confluent small-pox.

It was not unusual to see in the mornings of the public inoculation at the Hospital a procession of men, women, and children, conducted through the streets by a priest carrying a cross, come to be inoculated. By these popular means it met not with opposition, and the common people expressed themselves certain that it was a blessing sent from Heaven, though discovered by one heretic and practised by another.

At Naples I found the inclinations of the inhabitants, from the accounts they had received from Palermo, favourable to its practice.

An Hospital for the inoculation of the Jennerian disease was immediately established, and every endeavour used to extend its benefits through the kingdom.

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Towards the end of this year (1800) Sir Gilbert Blane, who was one of the Commissioners of the Sick and Hurt, became desirous of introducing the practice into the navy. Earl Spencer, the First Lord of the Admiralty, acquiesced in this design; and an order was issued by his lordship, and instructions were given to the navy-surgeons accordingly. This measure, and the corresponding one previously enforced in the army by the orders of the Commanderin-chief, were certainly the most important that had hitherto been adopted in this country for the propagation of cow-pox by public authority. They were important as they regarded the encouragement thus given to the practice of vaccination: but they were still more so as they regarded the efficiency of our naval and military force, the safety of the community, and the public expenditure; the breaking out of small-pox in our fleets and armies having on too many occasions crippled their exertions, defeated the measures of Government, and destroyed many valuable men.

Dr. Trotter, who was then physician to the fleet, seconded the recommendation of the Admiralty with all that zeal and energy by which he was so much distinguished. He had, indeed, earnestly recommended the measure when vaccination first came before the public; and for this most praiseworthy and patriotic exertion he drew down upon himself no small measure of censure from some of his ignorant and inconsiderate contemporaries. He observes, in a letter dated Dec. 9th, 1800, "that the Jennerian inoculation will be deservedly recorded as one of the greatest blessings to the navy of Great

Britain that was ever extended to it." This venerable physician had, at a future period, an opportunity of evincing the sincerity of these sentiments by presenting to Dr. Jenner, in conjunction with the other medical officers of the navy, a splendid token of their admiration for the discoverer of the vaccine inoculation, and a proof of their confidence in its prophylactic power. These gentlemen voted a gold medal, which was presented to Dr. Jenner in February 1801. The medal represents Apollo as the god of physic introducing a young seaman, recovered from the vaccine inoculation, to Britannia; who in return extends a civic crown, on which is written JENNER. Above, "Alba nautis Stella refulsit." Below, "1081."

On the reverse an anchor; over it "Georgio Tertio rege;" and under it, "Spencer duce."

This medal was forwarded to Dr. Jenner by Dr. Trotter with a letter written with great warmth and eloquence, and not less honourable to the feelings of the writer than just and gratifying to him to whom it was addressed.

## DR. TROTTER TO DR. JENNER.

SIR,

You are, perhaps, no stranger to the information of the new inoculation being directed throughout the navy by Admiralty authority. The inquiries which had been instituted in the Channel for the last seven years had called the attention of the surgeons to guard against the intro-

duction of the small-pox among seamen, which in more than a hundred instances during that time had been imported by ships; twenty of these have occurred within the last six months in this fleet only. Amidst subjects so ill prepared for its reception more than the common proportion of deaths has been the consequence. Such was the tenour of our researches, when Dr. Jenner announced to the world the vaccine inoculation as a preservative against variolous infection. "Tandem veneris augur Apollo."

As far as the new practice has extended among us it has been followed with the usual success, and so mild that the subjects of it have not been considered in the number of sick on the list.

But the value of conducting the vaccine inoculation with spirit and perseverance throughout the navy may be best estimated by calculating the seamen at 10,000, who are unconscious of having had the small-pox. In this proportion I am justified by the experience of musters in infected ships. How dignified the councils of any nation that by timely precaution shall ward off so much probable misery!

The medical officers have not been passive spectators of an event so singular in the history of animated nature; an event which the philosopher will contemplate with wonder, and the friend of his species view with exultation.

Although secluded by their office from the earliest communication with the progress of medical science, what relates to the vaccine disease has been earnestly sought after; and the whole of your opinions and practice have excited uncommon attention amongst us. I am therefore requested to present you, in the name of those gentlemen, with a gold medal and suitable devices; at once expressive of their sentiments in favour of the new inoculation, and to commemorate its introduction into this department of public service. With the more pleasure I comply with the wishes of my worthy associates, as I am confident that

no token of respect bestowed on a benefactor of the human race was ever conferred from more honourable or disinterested motives. It will not be the less acceptable to Dr. Jenner that it comes from a body of officers connected by the exercise of their profession with the most brilliant period of our naval annals.

As far as their authority has influence they thus offer their warmest support to the cause. The progress of truth is sometimes slow, but always certain. It is not in the nature of medical investigation long to resist the evidence of facts; and it is far less the province of medicine to check the current of charitable feelings, or to circumscribe the duties of benevolence. We must therefore hope that, while the liberal discussion it has undergone shall secure the suffrages of the enlightened mind, the love of offspring will confirm its favourable reception throughout domestic life.

Accept, Sir, in the name of my naval friends, my hearty congratulations on the honours that await your professional exertions. May the present age have the justice and public spirit to remunerate what posterity will be glad to appreciate. May the medical faculty have virtue and candour sufficient to acknowledge the value of your labours. May your example be a model to the rising members of that profession which you adorn; and may you be blessed with length of days to see your discoveries the means of abridging and preventing disease, pain, and deformity throughout the habitable globe.

Inclosed I have the honour to transmit a list of the medical gentlemen and their stations in his Majesty's naval service. I beg, with all personal esteem and regard, to subscribe myself,

Sir, Yours, &c.
T. TROTTER

Plymouth Dock, February 20th, 1801. TO DR. TROTTER, FROM DR. JENNER.

· SIR,

I beg you to accept my sincere acknowledgements for the distinguished honour conferred upon me by your presenting me with a gold medal in the name of the medical officers of his Majesty's navy.

Since there is no situation occupied by medical men where the value of the discovery of vaccine inoculation could be more justly appreciated, from no quarter could such a mark of attention for the endeavours I have exerted in pointing out the means of annihilating the small-pox have been received by me with greater pride, or warmer emotions of gratitude.

If any thing could enhance the estimation in which I shall ever hold such a mark of distinction, conferred by such respectable characters, it is that it is presented to me by a man who has cultivated the most useful science with so much success: and introduced so many valuable improvements into the navy of Great Britain.

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Whilst efforts were making to transmit the Variolæ Vaccinæ to the eastern parts of Europe, as well as into Asia and Africa through the medium of the Mediterranean, exertions of a similar nature were directed by Dr. Jenner to diffuse the antidote to other parts of the globe. He especially wished to impart it to our distant possessions in the East.

He sent out his different publications, and large supplies of virus by the Queen East Indiaman, but she never reached her destination, having been lost at sea. After this disastrous event he continued to renew his attempts by almost every ship that left our shores, but they all failed. In the mean time most urgent demands were made for vaccine virus, in consequence of the devastations that small-pox was committing, particularly in the island of Ceylon.

He was twice sent for by Lord Hobart, to the Secretary of State's office, to deliberate on this emergency. He represented in the strongest terms the necessity of employing means more effectual than sending out dried matter, and pointed them out in the most satisfactory manner. He proposed that on board some ship going to India twenty recruits, or men of any description who had not had the small-pox, should be selected; and that he should be allowed to appoint a surgeon to attend them perfectly conversant with the vaccine inoculation. Thus he engaged that the disease should be carried in its most perfect state to any of our settlements. After some deliberation these reasonable and practicable proposals were rejected. Dr. Jenner resolved himself to endeavour to effect what the Government was unwilling to attempt. A vessel properly equipped was all that was necessary to insure the success of his benevolent wishes. He knew that there were persons in this great country who would not be backward in co-operating with him for such a purpose. His design was to raise as speedily as possible, by subscription, sufficient to defray the expenses of the voyage. He wrote to Dr. Lettsom on the subject; and to prove how

zealously he was affected in this matter, he desired that his own name might be put down for one thousand guineas.

Before this design could be carried into execution tidings arrived from the East which happily rendered it unnecessary, Dr. De Carro having succeeded in forwarding vaccine matter from Vienna to Constantinople, and from thence to Bombay, in a manner which will be hereafter described.

Two letters, one from Dr. Underwood of Madras, and the other from Dr. Scott of Bombay, refer to these transactions.

DR. UNDERWOOD TO DR. JENNER.

Madras, February 28th, 1801.

DEAR SIR,

Permit me to thank you most sincerely for having kindly sent per Queen your publications on the cow-pox, together with matter. I have been made acquainted with your friendly attention by my friends in London, who mentioned that you intended to send some matter to me overland, in the event of the loss of that sent per Queen. This unfortunately proves the case, and I lament it most sincerely, and anxiously look for recovering some from you overland. I have read with very great pleasure your remarks on that disease, and feel most particularly anxious to introduce and extend it in the country, under the greatest confidence that it would save many lives. It has been with extreme pleasure that I have hitherto embraced every opportunity of inoculating with the variolous matter, but the loss of a beautiful little patient has humbled me, and I confess I

never now take up a lancet for that purpose but with fear and trembling.

We generally inoculate here in the month of January, and I trust before that time arrives to be in possession of vaccine matter.

Mr. White of the Royal Establishment, who arrived here the other day, favoured me with a perusal of your book, and a little vaccine which he had taken a few days before he left London: with this I inoculated my son and nephew; but unfortunately both failed, in my opinion from the matter being kept too long. The moment I had made use of the matter I made Dr. Anderson our Physician General acquainted with it, and forwarded him the books. He is much pleased with your exertions, and I am sure will do every thing in his power to promote its success. Lamenting extremely this failure I am in careful pursuit of the disease in this part. The other day a cow was brought to me said to have the small-pox, and the natives assure me it is common amongst them, but that this is not the season of the year. On the teat of this cow there appeared one large pustule of a white colour, and several others dry. I took the matter from this, and inoculated four cows on the teats. One of the four had several lumps like glandular obstructions: on the seventh day and on the ninth one pustule, but which was very unfortunately broke before I was sent for. I shall continue the search, and shall have great pleasure in acquainting you of my success. If I am so fortunate however, I would not rely on it, but entreat you will have the goodness to forward me, through Mr. James Curtis, No. 1, Ludgate Hill, vaccine by every opportunity until we are so fortunate as to succeed. Dr. Anderson this day sent me a horse of his which had greasy heels. I inoculated two cows from it, and Mr. White has taken some of the grease round to Calcutta to make the same experiment. He is to sail for Calcutta in a day or two. Should it please the Almighty to bless this undertaking, and enable us to inoculate for the cow-pock, the natives will very easily be persuaded to make use of it very generally: but as for the small-pox they are decidedly against it with very few exceptions, and it is with the utmost difficulty they will allow matter to be taken from them. May I take the liberty of requesting the matter to be sent out in different ways-betwixt two pieces of polished glass, carefully covered at the edges with wet skin or cotton carefully sealed down in a phial, and probably the glasses that are used for phosphoric matches would do well:however you will be much the best judge how to forward it. The Court of Directors would most assuredly forward matter by their overland dispatches if proper application was made to them. Sincerely thanking you for your very polite attention, and most ardently wishing you every success in a disease you have introduced with so much honour to yourself and real benefit to mankind,

I have the honour to be, with sincere regard,
Your most obedient servant,
JOHN UNDERWOOD,
Surgeon to His Majesty's Naval
Hospital, Madras.

DR. HELENUS SCOTT, BOMBAY, TO DR. JENNER. SIR.

I received the letter with the vaccine matter which you were so good as to send me by Colonel Oakes. Before his arrival we were fortunate enough to produce the disease here, and from this place it has spread to almost every part of Hindostan. We have already inoculated between

2 and 3000 children in Bombay. It gives me great pleasure to observe that the natives begin to acquire confidence in this practice, as well as knowledge of the true appearances of the disease. I have no doubt but that every day will increase its reputation among them, and spread to a wider extent the benefit of your happy discovery. Among so many others I have the strongest motives for being thankful to you, for I have three children, born in three successive years, who were the first in India to enjoy the protection of the cow-pox. I set an example in my own family which has been followed by every European family here, and has or will be followed by every other in India.

I beg to enclose you a number of our newspapers on this subject. From their dates you will be able to trace the progress of the vaccine disease from Constantinople to its present state in India. We are, I suppose, in the first instance indebted to Dr. De Carro of Vienna for sending it to Constantinople. You will see by the accompanying papers that our intentions have always been right, our opinions sometimes wrong. Upon the whole, the practice is established; and much praise is due to the Government of this country for their liberal views, as well as to the zeal of the faculty in India.

If I can do any thing for you in this country I beg of you to employ me.

It gives me pleasure to reflect that my situation, as a member of the Medical Board of this Presidency, has enabled me to give some assistance in spreading the reputation of your discovery. Who must not envy your reflections on this subject!

I beg of you to believe me, with much regard and esteem,

Your very obedient servant,

H. SCOTT.

By the unwearied labours of Dr. De Carro vaccination had already penetrated a great part of Germany and Poland. From him, likewise, it emanated to Venice, Lombardy, and other parts of Italy. He was now engaged in an enterprise embracing a wider field. During the summer of the year 1800, an English gentleman and lady, Mr. and Mrs. Nesbit, were passing through Germany on their way to the capital of the Ottoman empire. They were going to visit their daughter Lady Elgin, whose husband Lord Elgin was British Ambassador They remained a short time at to the Porte. Vienna, and became acquainted with De Carro then in the height of his vaccine inquiries. He spoke with enthusiasm upon his favourite topic Vaccination. They had left England imperfectly acquainted with its importance, but his conversation excited so lively an interest that, shortly after their arrival in Constantinople, Lord Elgin sent a request to Dr. De Carro for some vaccine virus. The first subject upon whom it was tried was the infant son The inoculation was performed of that nobleman. on the 6th of September by Dr. White, who afterwards fell a victim to his imprudent inoculation of himself with the plague.

His lordship communicated the result of the trial to Dr. De Carro in the following letter:—

Constantinople, Dec. 23d, 1800.

SIR,

Though much hurried at this moment I am happy in being able to acknowledge my obligation to you for the vaccine matter. It took effect on the third trial, and indeed fully answered the favourable account you had given of it. My child was so little ill that I should be at a loss to say how he was affected; nor could I determine that the infection had taken place, had I not been prepared, by your letter, for the almost imperceptible appearances which were observed. I mean this, in regard to the constitutional complaint: for the affections on the incisions were perfectly clear.

My former failures in the operation having induced Dr. Whyte (who officiated) to touch the skin with the lancet in three places, in each of which there was a pustule. The matter from his arm has been applied to several children here with equal success.

The matter you last sent, conveyed in a quill and a glass phial, has been given to the captain of an American frigate now here. It has taken most favourably in one of the instances to which he applied it; and he proposes inoculating further from the first patient.

I shall be happy to write you further on the subject by an early opportunity. Meanwhile I was anxious to say, in this hasty manner, how much I feel indebted for so great a benefit as I have thus received from you; and am, by your means, the instrument of introducing into this country.

I have the honour, &c.

ELGIN.

To Dr. De Carro, Vienna.

Doctors Hesse, Pezzone, and Auban, then practising at Constantinople, adopted vaccination with ardour. It was for a while confined to a few European families; by degrees, however, it vanquished Mahommedan prejudices, and was, at last, admitted within the walls of the Seraglio, having found advocates in Dr. Roini, and Lorenzo Noccioti — the physician and surgeon to the Grand Seignior-Roini presented him with an extract from Dr. De Carro's observations and experiments, translated into the Turkish language. That prince, who had suffered severely from the small-pox, expressed his regret that a discovery, which would have saved him so much pain, had not been made during his early days, and he added a desire that it should be adopted throughout his dominions. Roini vaccinated a child belonging to a servant of the Seraglio, and after a time the Hekim Bacchi, or chief physician, expressed a wish that three of his own children should receive it. Its progress was, nevertheless, not very rapid. When Dr. Hesse left Constantinople in 1802 the virus was lost, but it was speedily renewed by Dr. De Carro; and in 1803 it was calculated that in the different quarters and suburbs of Constantinople between five and six thousand had been vaccinated.

Lord Elgin and his lady continued most sedulously to promote the practice. During a tour that they made in 1802 through the islands of the Archipelago they, with the aid of Dr. Scott a physician in their suite, carried it to Athens, Argos, Corinth, and other cities of Greece. The English consul at Salonichi Mr. Charneu, and Dr. La Font, a French physician long resident there, interested themselves heartily in the cause; and the latter even entertained a hope that it might prove an antidote to the plague. Salonichi was the birth-place of the aged inoculator Thessala, who had, about a century before, attracted so much attention at Constantinople by her inoculations. The inhabitants of Salonichi, Turks, Greeks, Armenians, and Franks, received the new practice with so much eagerness that 1130 were vaccinated in the course of eight months.

Larissa in Thessaly, and Macedonia were equally anxious to partake of the blessing. Dr. Moreschi who had published two works on vaccination, and had introduced it into the Venetian states and a great part of Italy, next directed his efforts to the western side of Greece, and by an opposite geographical track carried the practice to the same point. In a spirit of honest exultation, and with feelings enlivened by classical associations, he thus triumphantly recounts his success. "My glasses and threads, impregnated with vaccine, after passing through most of the provinces situated on the Adriatic, having been sent to Drs. Marochia and Mirowish physicians of Prau, Spalatro and Salona, places renowned in the history of Rome, have gone almost to Athens; and have reached Theachi, the famous Ithaca of Ulysses, and Patras in Peloponnesus. During the last winter I gave vaccine to several persons of distinction and merchants of this city, (Venice) for their friends and correspondents of Cephalonia, Cerigo, and Zante. Persons worthy of credit have assured me that vaccination is practised with success in the islands of the Ionian Sea; and others, who have returned from Corfu, that the vaccine of that island has passed to Butronto in Macedonia,

" celsam Buthroti ascendimus arcem."

No sooner had the account of Dr. Jenner's discovery reached India than the greatest anxiety was evinced by every professional man there to become possessed of an agent capable of securing the inhabitants from a scourge more dreadful in its effects, in that climate, than in almost any other. Dr. Jenner himself felt this so strongly that, after sending virus by almost every conveyance without success, he at last proposed the noble scheme for its certain transport already mentioned. In the mean time the governments at the different Presidencies were not inattentive to this great object. The Honourable Jonathan Duncan, governor of Bombay, early felt the importance of securing the benefit for India as speedily as possible. He therefore wrote on the 21st March, 1801, to Lord Elgin at Constantinople requesting his co-operation in forwarding virus to Bombay, by the way of Bagdad and Bussora. He also sent at the same time to Mr. Harford Jones,

(now Sir H. Jones Brydges) resident at Bagdad, to the same purport. On the 8th of September, 1801, Lord Elgin forwarded one quill containing vaccine matter to Governor Duncan, and likewise sent supplies to Mr. Manesty, at Bussora, with directions to that gentleman to try to reproduce it there, and then to forward it to Bombay. His Lordship had in the preceding year sent virus to him with which his own son was inoculated, but in neither case did it succeed.

The Medical Board in Bombay likewise evinced their zeal by addressing the Governor on the 4th of August, 1801, and suggested the measures for the conveyance of the virus which were afterwards successful. The Governor sent the letter of the Medical Board to the Court of Directors, earnestly soliciting their assistance.

After receiving many urgent requests for matter Lord Elgin wrote in January 1802 to the Honourable Arthur Paget, to this effect,—" I have so many applications for vaccine virus from Bussora, the East Indies, and Ceylon, that I beg you will immediately apply to Dr. De Carro, and request him to send some by every courier." Mr. Harford Jones, too, requested Dr. De Carro to send him the virus, with necessary instructions, direct from Vienna. Many disappointments having arisen from the difficulty of transmitting it in an active state, he employed every expedient that ingenuity or experience could suggest to obviate them.

Various methods had been tried. Impregnated lint, or threads enclosed between plates, or in bottles and in tubes closed up with wax. The practice of imbuing the points of common steel lancets was soon abandoned. To these succeeded lancets of silver, silver gilt, gold and ivory. After a series of trials he gave the preference to ivory, which he considered to be, in all respects, the most secure vehicle for transporting the virus. On lancets of this material it was sent from Breslau to Moscow, where, under the patronage and actual inspection of the Russian Empress, it completely succeeded.

As that which was destined for Bagdad would be exposed to the accidents of a long journey, in a climate heated by a scorching sun, he took special care to protect it as much as possible from external influence. He sent some on lancets of silver, silver-gilt, and ivory: he also impregnated some English lint with the vaccine fluid, and enclosed it between glasses; and when he had properly secured them he dipped them at a wax-chandler's till they formed a solid ball, which he enclosed in a box filled with shreds of paper. In this state the packet was safely conveyed across the Bosphorus, and passed over the whole line of deserts; and he had the satisfaction of hearing that, on its arrival on the banks of the Tigris, its contents were still liquid, and succeeded on the first trial. It was received on the 31st of March, 1802. Mr. Harford Jones immediately delivered it into the hands of Dr. Short, who employed

it on the 5th of April. It was forwarded by Dr. Short to Mr. Milne, surgeon to the British Consul at Bussora. This gentleman before the 17th of the following June had vaccinated forty persons; among whom were the crews of some vessels departing for Bombay. He also sent it to Bushire, in the Persian Gulf; and to Muscat, a port in the Arabian sea. Before the end of June it reached our establishment at Bombay.

In this manner was this precious antidote first transmitted to the continent of Asia. While recording the principal events in this interesting history it ought not to be omitted that the vaccine virus, which served to protect the Eastern part of the world, came not from the English stock, but was derived from the cows of Lombardy. It had been sent from Milan by Dr. Sacco to Vienna; and Dr. De Carro was making his first trials with it at the time he received the application from Mr. Jones at Bagdad. These trials having completely succeeded he was enabled to comply with the request in the manner just described.

The Recovery, the vessel which carried the virus from Bussora to Bombay, left the former place late in May. She was three weeks on her voyage.

On her arrival between twenty and thirty subjects were inoculated, but only one instance of success occurred, and that was in the hands of Dr. Helenus Scott. On the 14th of June he inoculated Anna Dusthall, a healthy child about three years

old, the daughter of a female servant belonging to Captain Hardie. The progress of her affection was watched with the utmost anxiety; and the medical gentlemen had the happiness to find that it accorded so completely with the description of Dr. Jenner that they felt quite assured that they had, at last, gained possession of their long-wished object, the genuine Variolæ Vaccinæ. On the eighth day from her inoculation five children were vaccinated, and successfully. A relation of these proceedings was published in the Bombay Courier by Drs. Moir and Scott. This communication is dated on the second of July, 1802. It gives a very interesting account of the momentous event, and makes honourable mention of all the individuals who had assisted in bringing it about. Not the least important part of this report was that both the Hindoos and Parsees at Bombay and Surat evinced the utmost desire to have their children inoculated with the "vaccine disease."

The Medical Board, anxious to diffuse the acquisition they had made throughout India, forwarded virus to Bengal, Madras, Ceylon, &c. It very soon took effect at Hyderabad and Trincomalee, and was spread with great rapidity from place to place.

The Government most cordially seconded every effort of the Medical Board. Dr. Desborah, surgeon to the Residency at Poonah, having failed in producing the infection with virus sent to him at different periods, Government humanely directed

that subjects affected with the cow-pox might be sent to secure the introduction of the disease into the capital of the Marhatta empire. A Brahmin was despatched with two children under the infection. He, with one of the children, reached Poonah in six days.

The exertions of Dr. Anderson at Fort St. George were unceasing. He established an extensive correspondence with the medical gentlemen at the different stations, and he circulated the reports which he received from them through the medium of the Madras Gazette. He likewise succeeded in transmitting the virus in an active state to Bengal. this event Dr. Fleming, the first member of the Medical Board, addressed a letter to the Governor-General in Council. His Excellency the Marquess Wellesley was pleased to direct that that letter, with its enclosure, should be published for general information. This letter announced the important fact that a boy who had been vaccinated by Captain Anderson, commander of the ship Hunter, on the twelfth of November, on its passage from Madras to Calcutta, had arrived at that place on the seventeenth with the disease in an active state. Three children were immediately inoculated, and, on the following day, eight others, in all of whom it completely succeeded.

Dr. Fleming then observed "The settlement being now, as I conceive, in complete possession of the benefit derived to mankind from Dr. Jenner's celebrated discovery I take the liberty of submitting to your Excellency's consideration my opinion on the best mode of preserving the continuance of so great a blessing, and spreading it as rapidly as possible throughout the provinces."

He, therefore, recommended that a surgeon of approved skill and assiduity should be appointed to the charge of preserving a constant supply of recent genuine matter; that it should be a part of his duty to vaccinate the children of the Natives; and to instruct the Hindoo and Mohammedan physicians in the proper mode of performing the operation. In order to induce the Natives to adopt vaccination he likewise proposed that an address should be published in the Persian, Hindoo, Bengalese, and Sanscrit languages, giving a succinct account of the discovery in which the curious and, to the Hindoo, very interesting circumstance that this wonderful preventive was originally procured from the body of the cow, should be emphatically marked. Next, an explanation of the essential advantages which vaccination possesses over the small-pox inoculation: and, lastly, an ardent exhortation to the natives to lose no time in availing themselves of this inestimable benefit. This letter bore date November 29th, 1802.

Shortly afterwards the Governor-General in Council was pleased to order "That the high approbation of his Excellency in Council be signified to Dr. James Anderson, physician, &c. &c. on the establishment of Fort St. George.

"To Captain Anderson, commander of the ship Hunter; to John Fleming, esq.; and to Messrs. Russells, Hare, and Shoolbred and the other medical gentlemen employed on this important occasion, for their diligence and ability in promoting at this Presidency the successful introduction of Dr. Jenner's discovery.

"That Mr. William Russel be appointed to superintend the further promotion of the benefits of Dr. Jenner's discovery throughout the provinces subject to the immediate government of this presidency. And that a notification be prepared and published in the Persian, Hindoo, Bengalese, and Sanscrit languages, according to the suggestion of Mr. Fleming."

These different measures proved very successful. The prejudices of multitudes were in favour of the practice; and the superstitious veneration in which the Hindoos regard the cow contributed greatly to this result. Although the Brahmins for the most part were friendly, they were not uniformly so. In order to gain their approbation two different attempts were made to prove that their own records contained descriptions of the benign preventive which they were required to sanction. The facts connected with these well-intended devices will be found mentioned in another part of this work. There is great reason to believe that they have recently been misunderstood, and have given rise to the assertion that the Hindoos were really acquainted with vaccine inoculation in early times, when in fact the

manuscripts which seemed to support that opinion were modern fabrications; certainly intended to beguile by their apparent antiquity, but never designed by their authors to be treated as real documents on which claims, adverse to those of Dr. Jenner, could be founded.

In Ceylon the inhabitants at first manifested some reluctance to receive vaccination. This reluctance soon gave way, and by the excellent measures adopted by Governor North, under the direction of the Medical Superintendent General, Thomas Christie, Esq. it was so speedily diffused that he was enabled to state that two thousand had been vaccinated in the district of Columbo alone, during one month. This gentleman's account of the introduction, progress, and success of vaccination at Ceylon, published after his return to England in the year 1811, is an extremely valuable document. It shows how wisely and energetically he carried into effect the arrangements for general vaccination, and proves beyond all doubt that, when it is so used, variolous contagion may be certainly and completely controlled. In this respect Dr. Jenner always set a high value on the facts which were furnished from Ceylon, and he himself urged Dr. Christie to publish the account I have referred to, believing that it might render essential service to his great object of exterminating small-pox.

To Sweden and to Ceylon Dr. Jenner was in the habit of pointing when he wished to prove what his

discovery might accomplish; or when he lamented that fatal obstinacy of his fellow-creatures which, with such examples before them, could induce them to reject blessings within their reach. He had an opportunity during the latter years of his life of enjoying much friendly intercourse with Dr. Christie, in Cheltenham; and I am certain that intimate knowledge of that gentleman strengthened the feelings of respect and regard which his previous conduct had given rise to.

Should the reader desire further information on these points I would refer him to Dr. Keir's account of the introduction of the cow-pox into India, published at Bombay in 1803; and to the History of Vaccination in Turkey, Greece, and the East Indies, by Dr. De Carro, published in French at Vienna in the year 1804.

This excellent physician, while labouring with indefatigable zeal to promote the practice of vaccination in every part of the world, kept up a constant correspondence with its distinguished author. The warmth of his attachment to Dr. Jenner, the energy and ability displayed in collecting information from all quarters, and the eloquent manner with which he communicates information, are so conspicuous that I should feel strongly tempted to lay all his letters before the public, did I not fear that I should thereby be prevented from recording as I ought the efforts of other zealous friends of Jenner. But the following extracts so satisfactorily elucidate the preceding

history that I think they will be more acceptable than any narrative that could be constructed from them. That these may be the more fully understood I prefix part of a letter from Dr. Jenner to this learned physician.

DR. JENNER TO DR. DE CARRO.

March 28th, 1803.

DEAR SIR,

Since the commencement of our correspondence, great as my satisfaction has been in the perusal of your letters I do not recollect when you have favoured me with one that has afforded me pleasure equal to the last. The regret I have experienced, at finding that every endeavour to send the vaccine virus to India in perfection again and again failed, is scarcely to be described to you; judge, then, what pleasure you convey in assuring me that my wishes are accomplished. I am confident that had not the opponents, in this country, to my ideas of the origin of the disease been so absurdly clamorous (particularly the par nobile fratrum) the Asiatics would long since have enjoyed the blessings of vaccination, and many a victim been rescued from an untimely grave. The decisive experiments of Dr. Loy on this subject have silenced the tongues of these gentlemen for ever.

I am happy in seeing this interesting work translated by you, and hope it will travel the world over.

It is very extraordinary, but certainly a fact, that the plate which I gave in my first publication of the equine pustule (although its origin was detailed) was by almost every reader considered as the *vaccine*. There are probably some varieties in the pustules which arise among

horses. You will observe, by a reference to my publication, that the virus in the instance I now allude to was so very active that it infected every person who dressed the horse.

I am happy to find an opinion taken up by me, and mentioned in my first publication, has so able a supporter as yourself. I thought it highly probable that the smallpox might be a malignant variety of the cow-pox. But this idea was scouted by my countrymen, particularly P. and W. \* \* \* \*

## To Dr. DE CARRO, VIENNA.

Vienna, April 22, 1803.

DEAR SIR,

Nothing more was wanting to make me enjoy fully the satisfaction of having introduced the vaccination in India than to learn it had long been one of your wishes, and that the accomplishment of it by me has given you so much pleasure. I hope to show you soon the astonishing progress that it is making in that part of the world. I receive daily new and interesting documents from the East, which induce me to delay still for some time the publication of the work that I spoke to you of in my last letter.

If you have felt so much pleasure in hearing that your discovery is known and practised in India, I hope that I my late intelligence of the true cow-pox, produced at Milan with the giardoni on Dr. Sacco's own horse and that of one of his neighbours, has not been less agreeable to you. The first does honour to your heart, the second to your head; but indeed it is long since I am quite at a loss to determine which of the two is best in you.

You have lately given a strong proof of your moderation, by the silence you have kept with your antagonists. borders on insanity. I am extremely glad that you have treated it with the contempt it deserves. On the other side I am happy to see that it has not been left unnoticed, and that your friends have taken upon themselves to show his malevolent and ridiculous designs.

I do not know whether you are well informed of the great improvement which MM. Ballhorn and Stromeyer have made to the glasses invented by you. They have taught us a simple and easy manner to preserve the vaccine lymph fluid during an indefinite term. The Hanoverian vaccinators take a small bit of English charpie, which you call, I believe, dry lint. The quantity must be, of course, equal to the concavity of the glass. The pustule then is punctured by a circular or half-circular incision with the lancet, so as to open a greater number of the cells forming the vaccine pustule covered with the same pellicle. The lint is applied upon the pustule on the most woolly side, so as to act better as a syphon. It pumps in a very short time a sufficient quantity of vaccine fluid to saturate it as completely as if it had been dipped in a glass of water, particularly if the lint is now and then gently pressed with the point or the back of the lancet. When it is quite full you take it with the lancet, and place it carefully in the cavity of the glass; you put a drop of oil, or a little mucilage upon the internal surface of the glasses; you make the flat bit of glass slide upon the charpie, so as to exclude the air as much as possible; you tie the two bits with thread, and seal the edges. To prevent the access of light I commonly fold it in a black paper, and when I was desired to send it to Bagdad, I took the precaution of going to a wax-chandler's, and surrounded the sealed-up glasses with so much wax as to make balls. With this careful manner it arrived still fluid on the banks of the Tigris.

\* \* \* \*

DR. DE CARRO TO DR. JENNER,

Vienna, 21st June, 1803.

MY DEAR SIR,

My friend Dr. Marcet wrote to me lately that the account I have sent to you of Dr. Sacco's experiments have afforded you great satisfaction. The motive which induces me to write to you to-day is another confirmation of your theory which has taken place in a country where you scarcely expect it from, the more so that it is accompanied with veterinary observations which appear to me very nice and curious.

Monsieur La Font, a French physician established at Salonica in Macedonia, has been one of the most active vaccinators I know on the continent; his last letter, of the third of June, mentions that he has since last Autumn vaccinated 1130 persons. He first heard of your discovery on the occasion of Lord Elgin travelling in Greece with Dr. Scott; during which journey his lordship and the doctor took a particular care of propagating vaccination. The English consul at Salonica went to Athens to meet Lord Elgin; there he saw a great number of young Athenians with vaccine pustules. Not a word had yet been heard, at Salonica, of your discovery, and he desired Dr. Scott to give him vaccine matter to put into the hands of Dr. La Font, and Lady Elgin was so kind as to give to the consul a copy of my work, for the instruction of his physician. The first Athenian matter did not succeed, but seeing its failure, Dr. La Font applied directly to me, and my ivory lancets produced their effects at the first trial. Since that time I have been in regular correspondence with that physician, who appears to me to be possessed of much learning, prudence and activity.

Some time afterwards I sent him a translation of Dr. Loy's experiments, and desired him to make as many veterinary observations and experiments as he could. He has some reasons to suppose that the cow-pox reigns in that country, according to the report of several Albanese pea-As to the grease (which he calls javart,) he says that the farriers at Salonica know it very well. Dr. La Font began his experiments with the kind of grease which the Macedonian farriers call the variolous. He found a horse which had been attacked with feverish symptoms, that ceased as soon as the eruption appeared. The fore legs were much swelled; the left had four ulcers, one upon the heel, a second some inches higher, a third on the articulation, a fourth near the breast. The eruption on the legs was, he says, very like the small-pox, but none was to be seen on the other parts of the body. He took matter from the upper ulcer which was of twelve days' standing. The matter was limpid, but a little yellowish and filamentous, (thready;) first a cow was submitted to this inoculation, but without success; secondly, a girl twelve years old, without effect; but this girl had been vaccinated some months before without success, and was suspected to have had the small-pox; thirdly, two boys, one six, the other five years old, were inoculated with the same equine matter; and in both a pustule appeared, which followed the regular course of a vaccine pustule. The colour was less white, and more purple than usual. Those two children had a pretty strong fever, for which some cooling medicines were administered. Those inoculated with matter from them underwent the disease in its usual mild way.

These particulars, I hope, will silence all those who still doubt of the truth of your doctrine. These observations enhance the merit of your discovery. The means of mak-

ing it were every where; yet nobody before you had the least idea of that singular connexion between the grease, the cow-pox, and the small-pox.

\* \* \* \* \* .. \*

In pursuing the progress of vaccination into the East we have for a time lost sight of Dr. Jenner's personal history, and to that subject we now return.

He went to Cheltenham on the 13th of July (1800.) Mrs. Jenner and the children did not arrive there till the 29th. He remained till the 6th of November, on which day he departed with his family for London. He arrived in Bond-street on the 8th.

During his stay at Cheltenham he had some little relaxation from the incessant efforts which we have seen him compelled to make. Some of the mistakes in the practice of vaccination had, in part, been obviated, and he had the satisfaction of knowing that it was diffusing itself in every direction.

His own personal endeavours were, as heretofore, laborious. He offered gratuitous inoculation to all the poor who thought fit to apply at stated periods. His benevolent invitations were, in the main, very generally accepted, parents bringing their children in great numbers both from the town and the adjoining parishes.

I believe it was at this time that the incident I am about to mention occurred. Notwithstanding

his repeated notices of gratuitous aid one parish had hitherto obstinately held back. This year, however, he found the people bringing their children in great numbers. Of course he wished to know by what means they had become converts to the new inoculation. He found that arguments of a very authoritative nature had brought about the change. The small-pox, in the course of the preceding year, had been introduced into the parish, and proved extremely fatal; but it was not this circumstance, nor yet the security of those who had been vaccinated in the adjoining parishes, that brought cow-pox inoculation into favour. The cost of coffins for those who were cut off by smallpox proved burdensome to the parish; the churchwardens, therefore, moved by this argument effectually exerted their authority and compelled the people to avail themselves of Dr. Jenner's kind

His exertions, as usual, in London were incessant in prosecuting his favourite object. They were, however, interrupted by a considerable attack of illness which, for a short time, confined him to his bed. The disease at its commencement had somewhat of a typhoïd character. His former sufferings from a similar disease were never forgotten, and he continued to the end of his days to entertain great apprehensions of any such attacks.

He was soon enabled to resume his active duties. His vaccinations among the higher ranks were very numerous; and many of the nobility were desirous of having from his own mouth information on the great question which then engrossed so much of the public attention. A party of this kind assembled at the house of Earl Spencer on the twentieth of December. Besides his Lordship and the Countess there were present Lord Lucan, Lord Camden, Lord Macartney, Mr. Grenville, &c. &c. Jenner, whether in conversation or in writing, never failed to treat this or any other subject with great eloquence and perspicuity: his knowledge of it was complete, and his feelings being at the same time deeply engaged, his language assumed a degree of animation and precision highly impressive.

While engaged in these public acts (for so they may be called) he seized every opportunity of cultivating his domestic affections, and in promoting or participating in the little amusements and enjoyments of his children. He took them to see the different sights which London afforded. Among others, the illuminations in honour of the Queen's birth-day delighted them exceedingly, and his parental feelings in sympathizing with the pleasures of his children are expressively recorded by the insertion of this trifling incident in his memoranda.—Next day, January the twentieth, he went with his son Edward to place him at school at Mr. Evans's, in Islington.

## CHAPTER XI.

PUBLICATION OF THE ACCOUNT OF THE ORIGIN OF VACCINE INOCULATION — INTRODUCTION OF VACCINATION INTO DENMARK, SWEDEN, RUSSIA, &c. &c—DISCOVERY OF THE VARIOLÆ VACCINÆ IN LOMBARDY, &c.

ABOUT this time Dr. Davids, of Rotterdam, went to Paris for the express purpose of seeing the practice of vaccination, and of bringing it into his own country. He was not successful in this attempt; the virus which he carried from Paris having failed he subsequently received some from Boulogne, which proved effectual. These facts he communicated to Dr. Jenner in a letter dated on the first of January, 1801. This gentleman also translated and published Dr. Jenner's *Inquiry*.

As Dr. Davids had gone to Paris for instruction, so in like manner another foreign physician came from the Continent in order to derive information from the great author of vaccination himself.

Dr. Reumont of Aix-la-Chapelle is the person to whom I allude. He had frequent intercourse with Dr. Jenner, from whom he received great civilities and every necessary information connected with his object.

Early in this year Dr. Jenner published his account of the origin of the vaccine inoculation. Among other public bodies to whom he sent this little work he did not forget the National Institute of France. He presented a copy to that learned body accompanied by the letter here inserted.

Dr. Jenner to the President of the National Institute of France.

SIR,

It is impossible for those who delight in science, on whatever part of the globe fortune may have chanced to place them, to contemplate without admiration the ardour with which her paths are cultivated by those illustrious characters who form the National Institute of France.

Conscious that it is the wish of that society to receive as well as to diffuse knowledge, permit me, Sir, to present you with a few pages containing the History of the Origin of Vaccine Inoculation.

The speedy adoption at Paris of the plan I had the happiness to announce for the annihilation of the small-pox, and the strenuous efforts of the French in making it known throughout their dominions, have filled me with sentiments of the highest respect for their talents in appreciating those discoveries which tend to meliorate the condition of human nature.

I have the honour to be,
Sir,
with high consideration,
Your most obedient humble servant,
EDWARD JENNER.

This civility was acknowledged on the part of the Institute in an official note.

From the National Institute of Sciences and Arts.

Paris, the 16 Thermidor,
9th Year of the French Republic.

The Office of the National Institute to M. Edward Jenner, M. D. F. R. S. Lond.

The National Institute in exerting itself to propagate the inoculation of the Vaccine has only fulfilled one of the most important functions which the Constitutional Law of France imposes.

To gather new truths from whatever quarter they may come, to spread them when they are useful, this is its first duty. It is sufficient to let you know how far your discovery, which appears to unite those two qualities in the most eminent degree, ought to excite the attention of this society, and the profound esteem it ought to inspire for its author.

The Institute charges us to make you acquainted with its sentiments, thanking you for the dissertation which you have addressed to it.

We beg of you at the same time to persuade yourself with the assurance of our particular consideration.

COULOMB, Pt. G. CUVIER, Sc. DE LAMBRE.

I have already mentioned that the true Vaccine virus had been lost in America, and that Dr. Jenner had used every means to send a fresh supply to Dr.

Waterhouse, which that physician acknowledged in a letter worthy of publication here. It presents a good specimen of the nature of the epistolary correspondence already alluded to as having long subsisted between two friends, whose views were so peculiarly directed to one common object, the promotion of the vaccine practice throughout the world.

DR. WATERHOUSE TO DR. JENNER.

Cambridge, April 24th, 1801.

DEAR SIR,

Being just informed of a ship's sailing to-morrow for London I have only time to acknowledge the receipt of vour most excellent letter: the answer to it must be postponed a week or two longer. With it I received a supply of vaccine matter, which came to hand thirty-eight days after the date of your letter, for which you have my most cordial thanks. I have inoculated with it, and found it good, and here send you the first crop from it. When my good friend Dr. Lettsom has sent me curious melon seeds I have sent him as soon as possible some seed raised from them, that he might see whether our soil, atmosphere, and mode of culture effected any alteration from the original stock. The same I have now done with your Vaccine virus. It was taken on the 9th day, for the pustule afforded none on the 8th. I took the patient into my own house that I might watch the progress of the local affection, which I did with the microscope. It is now the tenth day in the morning, and I expect the efflorescence will, in ten or twelve hours more, put on the appearance of your tenth day representation in the coloured engravings.

It is impossible for me to express the great satisfaction your letter gave me. The subject was before involved in a mist: your letter was a ray of light, which ray must be reflected for the benefit of the western world. Oh! that it were possible for this ray to become still more brilliant and even generative at the point of repercussion.

I entirely agree with you as to the cause of our late failures in inoculation. The case at Geneva, under Dr. Odier, was ours exactly. One inch and a half of infected thread from Dr. Haygarth was the whole stock from whence perhaps 3,000 persons have been inoculated, but I fear the greatest part of them have been spurious. I here enclose a newspaper containing a communication written in the clouds last December. I will allow you to smile at my mercurial and antimonial process, and likewise at my sextuple quantity of deteriorated virus! You know not what it is to be perplexed in this business. That prince of physiologists, John Hunter, once told me that "he loved to be puzzled, for then he was sure he should learn something valuable." Burthensome as it was at the time I do not now regret my perplexity. When I had lost my way, and wandered into the wilds of conjecture, I stood still. I gave out that the winter was an unfavourable season for this new inoculation, and by that means I suspended the practice throughout the country from that period until the arrival of fresh matter and your letter. Now we are going on again, but not with the faith and spirit of the last season. Some unlucky cases have damped the ardour of a people who received this new inoculation with a candour. liberality, and even generosity, much to their credit. The first political and literary characters in our nation are still warm advocates for the practice. I have lately received a request from head-quarters to supply the matter, and give the instructions to the regimental surgeons for inoculating

the corps of artillerists and engineers stationed at different places on our coast.

Accept my thanks for the coloured plate. It is indeed a happy expedient, and honours the graphic art. It is thought here to be so important that I am anxious to know if I can with propriety procure more of them. I should wish to possess a couple of dozen to be deposited in the hands of some of our leading practitioners, or clergymen, in different parts of the United States by way of standards. If this could be done I would propose that your artist or bookseller should send them to my bookseller, Mr. Mawman in the Poultry, who will pay for them and transmit them to me. Could I procure two or three, delineating the appearances on the skin of the negro, I would send them into such of our southern states as are blackened by these degraded beings. I have lately had letters from Virginia, respecting matter, instructions, &c.

I have been informed from a quarter not likely to be deceived, that cows (contrary to my assertion in page 22 of my pamphlet) have been known to have the small-pox.

The account is this. At one of our periodical inoculations, which occurs in New England once in eight or nine years, several persons drove their cows to an hospital near a populous village, in order that their families might have the daily benefit of their milk. These cows were milked by persons in all stages of the small-pox: the consequence was, the cows had an eruptive disorder on their teats and udders, so like the small-pox pustule, that every one in the hospital, as well as the physician who told me, declared the cows had the small-pox. Since the cow-pox has been talked of this account has been revived and credited. Have you found any thing like this in England?

I inoculated one of my cows with the Vaccine virus,

and obtained from her a crop of matter on the ninth day, which produced the disease in the human subject to perfection. Is this experiment known among you? As I operated myself there was no avenue opened for deception in the whole experiment.

I have invariably found that weakly children have been benefited by the vaccine inoculation, and some it has cured of the hooping-cough.

Could you believe that not a single case of the cow-pox inoculation has yet occurred in Philadelphia? A young physician applied to me a few days since from that for the infection. It seems that the leading physician there pronounces it too beastly and indelicate for polished society! It is impossible to think of this without calling to mind Mr. Ring's solemn appeal to Dr. Moseley respecting cows' milk, beef steaks, and mutton chops. Please to present my best compliments to that gentleman, and tell him that this single stroke of wit, so much in the spirit of our Franklin who always decorated philosophy with a smile, has done me more service than half the publications I have read on the philosophy of vaccination.

You very politely express a wish for more of my letters on the Vaccine or any other subject. In order to damp this desire and surfeit you at once, I have directed my bookseller to send you a whole volume of them, which the partiality of Dr. Lettsom has brought into light.

I here send you the Massachusets Register for the present year. It may possibly afford you some information as to our literary societies, &c. and may give you some new ideas respecting the present state of a country which was characteristically denominated by the English a century ago "The Wilderness."

I need not, I think, say how highly I should prize the correspondence of Dr.Jenner on any subject; but more es-

pecially on that for which he is so deservedly celebrated; and who, according to my understanding, is the only *clear*, *consistent*, unconfused writer on the cow-pox that has yet appeared.

I reiterate my thanks for your kindness, and beg you to accept the assurances of high consideration and esteem!

BENJAMIN WATERHOUSE.

P. S. As the library of this University is by far the largest in the United States, and is the grand deposit of rare and valuable books in this quarter of the world and will long continue so, I cannot resist expressing my wish that a copy of your invaluable work may be deposited there by its author. I presume my motives for wishing this, and hinting it, stand in no need of an apology. By a law of the Commonwealth, an author to secure his copy-right must deposit a copy of his work in this library; and books sent to it come free from duty. This library, museum, and other public rooms are constantly visited by strangers as among the curiosities of the country. When I had the honour of waiting on the Duke of Kent through them, he expressed his surprise at such a collection of books and natural productions in about thirty years, for the small-pox destroyed the chief of what had been collected since 1638: that is to say, it raged in Boston, and the legislature on that account occupied one of the public rooms in the hall, which contained the library; when it by some accident took fire and was, one alcove excepted, totally destroyed. Thanks be to Dr. Jenner, such an accident from such a cause can never happen again.

The ever-active mind of Dr. Jenner was now investigating the history of some of the other disorders of the inferior animals. Among these was

the dog-distemper. He found that animal to be very susceptible of the Variolæ Vaccinæ; and he believed that after having undergone their influence, it was rendered unsusceptible of the distemper. Several of our great fox-hunters eagerly availed themselves of this hint, and had their hounds vaccinated. This practice is, I believe, not now in use.

A paper on the dog-distemper was some years afterwards presented to the Medico-Chirurgical Society of London, by Dr. Jenner. This paper, together with an account of two cases of small-pox communicated to the *fætus in utero*, was printed in the first volume of their transactions in the year 1809.

It has been seen that whilst the practice of vaccination was extending rapidly over the world Dr. Jenner had the mortification to learn that a perfect knowledge of the manner in which it ought to be conducted did not keep pace with it. The consequence was a very natural degree of disquiet in his mind and great alarm and agitation on the part of the public from cases of alleged failure, which were assiduously circulated in newspapers and magazines, accompanied with all the exaggerations and misstatements that ignorance and prejudice could invent.

Dr. Jenner's method of dealing with rumours of that kind may be gathered from a letter written on such an occasion. DR. JENNER TO MR. BODDINGTON.

London, April 21st, 1801.

DEAR SIR,

I am extremely obliged to you for your letter which I long waited for with great anxiety; not an anxiety arising from any fear as to the result of my inquiry, but from a wish to satisfy the minds of those who were thrown into consternation from the reports which prevailed respecting Master Boddington's case. It was a case, Sir, on which I would willingly have rested all the merits of the vaccine discovery. Your letter and that of the medical gentleman who inserted the variolous matter fully justify me in saying I should have been right, for I never wish for a more perfect specimen of the non-effective powers of the small-pox upon the constitution after the cow-pox, than that you have laid before me. How a gentleman, following a profession the guardian angel of which is fame, should have so committed himself as to have called this a case of small-pox after cow-pox, is not only astonishing to me, but must be so to all who know any thing of the animal economy. He should have known that upon the skin of every human being that possesses a more than ordinary share of irritability the insertion of the variolous virus (whether the person has previously had the cow-pox or small-pox) will produce either a pustule or a vesicle capable of communicating the small-pox, and frequently attended with extensive inflammation. He should have known, too, that an inflammation, by whatever artificial means excited upon a detached part of the skin, is capable not only of exciting some degree of indisposition but also eruptions. Within this fortnight I have seen these appearances from a small blister on the child of a nobleman here. From the irritation of the blister the eruption became almost universal.

I remain, dear Sir,

Your obliged and obedient Servant,
E. JENNER.

Dr. Jenner has often been blamed, but I really believe inconsiderately, for encouraging unprofessional persons to practise vaccination. Every individual in this situation, with whom he had to do, actually studied the subject, and implicitly followed his directions. Not so, many of his professional brethren. They would not condescend to be instructed, and they openly disregarded his rules. Of these one of the most important was violated by the first public body that was formed in London for the purpose of vaccination. They actually printed and distributed a paper stating that the virus may safely be taken from the pustule so late as the thirteenth day!!!

It certainly would have been desirable to have confined the practice from the beginning to the hands of medical men. It is, nevertheless, true that from the causes just mentioned *they* fell into greater error, and did thereby much more endanger the character of vaccination than those who, from their general ignorance of medical subjects, might have been considered as more liable to go astray.

With these exceptions, every thing connected with vaccination was going on prosperously. His communications from remote parts, as well as from different places in our own country, all conveyed the pleasing intelligence of a rapid and satisfactory extension of the practice. It continued to excite great interest among the public at large.

I have mentioned several of the nobility and gentry who distinguished themselves by their zeal. I have now to add to that number the Earl of Carnarvon, who about this time gave Dr. Jenner an account of his vaccinations, which had been very extensive and successful.

This was not always the case with those of medical men. An incident proving this was communicated to Dr. Jenner, and he made it known to Lord Egremont, because from its connexion with two public bodies it might materially affect the character of vaccination. The Sick and Hurt Office had sent to the public Institution for Vaccine virus. They were furnished with matter issuing from an ulcer on a child's arm. The child had been vaccinated sixteen or eighteen days. Dr. Jenner invariably exclaimed against proceedings of this kind. He was even conscious that he himself had, in the outset, been less scrupulous as to the time of taking matter than he ought to have been. His sentiments on these points are thus expressed by himself:—

DR. JENNER TO MR. RING.

Bond Street, July 1st, 1801.

MY DEAR SIR,

You have often, I believe, heard me say (and I now repeat it) that it would not in the least surprise me to hear

that some of those who became my vaccine patients in the early part of my inoculation were infected with the smallpox. I had not then learned to discriminate between the efficacy of virus taken at an early, and at a late period of the pustule. Accordingly I have long since requested my nephew, whenever an opportunity offered, to reinoculate those people. I am confident that the cases you mention will be productive of good consequences, although they must create some temporary uneasiness, and give a little local check to vaccination. They will tend to stamp perfection on what I called "the golden rule" which, backed by your persuasive pen, will tend to make practitioners more careful than ever in their conduct. precepts given out by P--- allow an unlimited time for taking the Vaccine virus from the pustule. have often exclaimed against. It was not long ago that an apothecary wanted to take it from a pustule on the arm of a patient of mine, after the incrustation had begun to form three or four days.

Your case would certainly have raised a clamour a year or two ago; but now the phenomena of cow-pox have been so fully examined, and are so well understood, none but the ignorant and illiberal will lay any stress on it for a moment.

Yours very truly,
EDWARD JENNER.

The golden rule alluded to in this letter regarded the time of taking the Vaccine fluid for the purpose of inoculation. This Dr. Jenner maintained ought to be done at an early period of its formation, and before the appearance of the areola. The next rule which he insisted on was that the pustule, when excited should be permitted to go through all its stages in an uninterrupted manner. If any deviation appeared in its progress he always forbade the employment of virus from such a pustule for farther inoculations.

These rules, together with the injunctions which he subsequently delivered on the effect of certain diseases of the skin in interfering with the progress and character of the Vaccine pustule, may be considered as comprehending the main points to be attended to by those who undertake to conduct the practice of Vaccine inoculation.

On the 22nd of April he attended a meeting of the Lyceum Medicum Londinense, when he was admitted a fellow. This fact is worthy of being mentioned, inasmuch as this society was founded by his friend John Hunter, and Dr. Fordyce.

As it becomes me to seize every opportunity to prove the accuracy of his observation, and the truth of his doctrines, I may mention some of the remarks which he made at this time touching the influence of cutaneous diseases in modifying the progress of the vaccine pustule. One of the entries in his journal is to the following effect: "Inoculated Lady C. F. a second time. It is very evident that that affection of the skin called red gum, deadens the effect of the Vaccine virus. This infant was covered with it when inoculated four days ago. The same thing happened to Mrs. D.'s infant."

Dr. Jenner's conjecture respecting the power of

vaccination in preventing the dog-distemper has been already mentioned. Further to put this opinion to the test he, together with his nephew Mr. George Jenner, vaccinated in the month of June about twenty of his Majesty's stag-hounds. On the 12th of the same month he vaccinated a child from its own arm. This fact, together with that recorded by Mr. Hicks, proves how completely Dr. Jenner's mind was possessed of that knowledge which led Mr. Bryce, at a subsequent period, to propose his test of perfect vaccination.

Dr. Jenner remained in London till the 22d July, on which day he left it with his family and arrived at Cheltenham on the evening of the 23d. He remained there till towards the end of November, when he went for a short time to Berkeley.

In the summer of this year Dr. Jenner gave some cow-pox matter to Dr. Marcet to be sent to Copenhagen. About two months after, this physician received an interesting account of its success, which he published in the London Medical and Physical Journal. His Majesty the King of Denmark evinced his paternal solicitude for the welfare of his subjects by appointing a committee to collect information concerning vaccine inoculation, and to propose such regulations as might be needful for diffusing it in his dominions. This committee agreed on their report on the 5th of December 1801. It was then laid before his Majesty; when he was pleased to give his approbation to all the proposals

of the committee, and commanded the same to be duly enforced.

Professor Winslow particularly distinguished himself both as a member of this committee and as a sedulous vaccinator. The report was drawn up with great judgment, and laid the foundation for all the judicious and wholesome regulations which for a period of nearly twenty years gave Denmark a total immunity from small-pox.

From Denmark the practice was disseminated into Sweden, where means not less efficient were adopted for its propagation, and, as has already appeared, with a corresponding degree of success.

In the course of this year also the practice of vaccination was introduced into the West India islands with like benefit.

For the most part this practice was received with greater eagerness on the Continent than in England. Both France and Germany had, nevertheless, their Moseleys, their Birches and their Rowleys. Ehrmann, of Frankfort, in an especial manner rendered himself conspicuous by the violence and extravagance of his opposition to the new practice. A learned divine of the church of England (Massey) who preached a sermon against small-pox inoculation, in London, 1722, announced it as no new art, inasmuch as Job, he asserted, had been inoculated by the devil. Erhmann took rather a bolder flight, and attempted to prove from quotations of the prophetical parts of Scripture, and

the writings of the fathers of the church, that the Vaccine was nothing less than Antichrist. The harsh and unsparing tone of his writings obtained for him the appellation of the *Marat* of the Vaccine.

The progress of vaccination was, however, more impeded by the misjudging zeal and mistakes of its professed supporters than by all the efforts of its most determined opposers. Had the former made themselves well acquainted with the subject, and conducted the process with care and attention, all the attempts of the latter would have been powerless. Still, as it was, nothing could effectually stay the course of this wonderful discovery.

The Cisalpine Republic during the summer of this year gave an authoritative sanction to the practice. Instructions drawn up by Dr. Sacco were disseminated throughout the whole territory; and that gentleman was appointed Director of Vaccination. I give his first letter to Dr. Jenner, announcing these facts, and his discovery of the indigenous Vaccine virus in Lombardy: together with Jenner's answer.

## DR. SACCO TO DR. JENNER.

SIR,

It is to the Genius of Medicine, to the favourite child of nature that I have the honour to write. The name of Jenner will be always beloved by all posterity. All sensible minds will feel pleased with you. Finally, population, by your incalculable and very interesting discovery, will realize more than another tenth of its increase. We

must be very grateful to you, Sir; you have given the thread by which all others have guided their experiences. I also am one of those who, on the line which you have marked out, have endeavoured to render myself useful to humanity. After long researches I have at last found the virus indigenous in Lombardy; and with this virus there have already been more than eight thousand inoculations performed with the most happy success.

Several hundreds of these have since been subjected to the variolous inoculation, and have resisted it. The Cisalpine Government has distinguished itself, and wished to render it general throughout the whole territory of the Republic. It has done me the honour to appoint me Director of the Vaccination, which goes on very prosperously.

I should have wished, Sir, immediately on the publication of my work to have paid a little tribute of gratitude and esteem to a man such as you are, but the circumstances of the war have hindered me. Receive, my very estimable Sir, the homage of one who at a distance follows your steps, and who expects always from his master useful instructions. On this subject there is no English work known in Italy except your first publication and late observations. Some other books of old date are known only by extracts.

I would therefore, Sir, beg of you if you have any thing new to do me the honour to prepare for me a feast: I shall be under the greatest obligations to you for it. You will also do me the greatest pleasure in communicating to me the state of vaccination at present in England. And as I must give a report to Government, which will be printed, I shall then have the satisfaction to announce new and interesting things from the native country of the Vaccine. How happy should I be to make a journey to England

that I might become acquainted with my preceptor, and to see all the establishments of that country. I pray to Heaven to inspire my country with the idea of the necessity of sending some one who may know the great men produced in that happy soil. Circumstances become more favourable every day: let us therefore hope. Honour me, Sir, I beg, with your correspondence, and be sure of my highest esteem.

You may, Sir, address your answer and any later observations to M. Woodville, whom I have requested to send me every thing. I hope you will not be displeased with me if I have not been completely convinced that the grease in the horse has been the cause of the origin of the cow-pox. I have several experiments to the contrary. If you still have some which confirm it I beg of you to communicate them to me, in order that I may do you justice.

I believe I have explained what inoculators seek, by which, making four or six punctures, the pustules do not all arise in every place. When the absorption in the lymphatics does not take place, they fail: and, on the contrary, when the puncture happens in a small lymphatic vessel, then it is sure that the Vaccine will appear in the skin, although every-where covered with small vessels; there are, however, small interstices in which they are not.

If the puncture be made in this interstice it fails. One may explain this by almost all the phenomena which have been accounted for before. You see that the glands in general are the most affected. I request you to tell me your opinion on this theory.

May you live, my dear Sir, a long while for the good of humanity, and for the sake of all those who love you.

P. S. I have sent to Mr. Woodville vaccine matter from Lombardy. I have requested him to return me some from

London. Sir, you may also send me some from the country. You will oblige me infinitely—the comparison may produce some effect.

Your very humble servant,

Louis Sacco.

Milan, Oct. 16th, 1801.

DR. JENNER TO DR. SACCO, OF MILAN.

DEAR SIR,

Accept my best acknowledgements for your very kind attention. I am extremely gratified by your goodness in sending me your pamphlet on Vaccine Inoculation, your obliging letter, and above all the virus from the plains of Lombardy. I am confident that wherever the horse and the cow are domesticated together, and the same human being that attends the one, under a peculiar malady of the foot, milks the cow also, that there the disease called the cowpox may arise.

Until your communication reached me I was not aware that the new practice had been known in Milan. How much do I rejoice to observe that it is not only known there, but that it has already been conducted so exten-

sively and so ably.

Measures not less influential were adopted in the Prussian dominions. The virus which had been sent by Dr. Jenner to vaccinate the Princess Louisa had proved completely successful. The noble example set by the royal family, in thus giving proof of their confidence in vaccination, was amply repaid by great future benefits to the community. It laid the foundation for an extensive and effective system of vaccinations, which were carried on under the immediate

sanction of the King. His Majesty founded a royal Inoculation Institute in Berlin, the care of which was confided to Dr. Bremer, and his benevolent designs were seconded by this physician with the ut-He circulated tracts and exhortations most zeal. to the public, and adopted a plan which had great effect both in increasing the number of vaccinations, and in enabling him to ascertain that they were properly performed. Assisted by generous individuals he collected funds sufficient to have a medal struck. This medal was given to those who caused their children to be vaccinated at the Royal Institute: not at the time of vaccination, but on the seventh day after, when they appeared to show the progress of the pustule.

The artists of Berlin cordially lent their aid. The drawing was made by Mr. Freitsch, the King's painter, and director of the Royal Academy. The die was sunk by the King's medallists, Loos and Son. The obverse exhibits a child pointing with the fore-finger of his right hand to the spot where vaccination is generally performed on the left arm. In the left hand the child holds a rose; and there is besides a garland of roses, and a cornucopia. The inscription commemorates Dr. Jenner's first vaccination in the following words — "Edward Jenner's beneficial discovery of the 14th of May, 1796."

The reverse states the object of the medal in

words to this effect. "In remembrance of protection afforded." Presented by Dr. Bremer, Berlin, 1803.

In Vienna, notwithstanding the unwearied efforts of Dr. De Carro, the Government for a time stood aloof, and actually confounding the vaccine inoculation with that of small-pox, issued an order forbidding vaccination within the walls of the city. As soon as the essential difference between the two affections was ascertained this order was revoked, and the practice of vaccination was carried on with the greatest energy and activity. Tracts were distributed among the people, and individuals, powerful from their rank and their talents, exerted their influence in diffusing the antidote. What Lord Egremont, Mr. Fermor, and others had done in England, was achieved upon a wider scale at Brunn, in Moravia, by Count Francis Hugh de Salm. This truly philanthropic nobleman, having obtained genuine Vaccine virus with appropriate directions for its employment, called in to his assistance two physicians, and sent a third to be fully instructed in the practice. He likewise held out rewards to the physician who should vaccinate the greatest number in that country; and himself drew up a popular treatise on the subject, which he distributed gratuitously to the clergy and schoolmasters of Bohemia and Moravia. Not contented with these generous exertions in the cause he came to England with a letter of introduction from Dr. De Carro\* to visit in person the illustrious discoverer Jenner, and the other sedulous promoters of vaccination.

The good people of Brunn continue to commemorate the blessings conferred by the introduction of the Vaccine. They have erected a temple dedicated to Jenner. Here they annually hold a festival on his birthday. Some years ago they sent him a very interesting and warm-hearted account of their anniversary; which will be found in another page.

The practice was introduced into Hungary by Balthasar Nicolas de Bedecovitz, Lord of Kamor, living at Varasdin in Cröatia. He caused to be vaccinated on his lands at Stephaniez the children of one hundred and forty-nine families.

A sister of the late King of Poland, the Countess Zamoiska, who was living at Vienna while Dr. De Carro was carrying on his first vaccinations, desired him to furnish her with virus, which she transmitted to her daughter the Countess Mnieshek. One of this lady's own children was inoculated with this

\* Extract of a letter from Dr. De Carro to Dr. Jenner, dated Vienna, 30th June, 1801.

DEAR SIR,

Give me leave to recommend to your notice the bearer of this letter, Count de Salm, a friend of mine and a young man of very great merit. The propagation of your discovery in the Austrian Monarchy has been more forwarded by him than by all the imperial faculties of medicine. Open my work at page 91, and you will read part of what this nobleman has done for the two provinces of Moravia and Bohemia.

matter; and from this source was the practice diffused over Poland.

The ministers of religion were not slow in their exertions in this cause. The address to "Fathers and Mothers" drawn up by the faculty at Geneva, and which the officiating clergyman was in the habit of delivering to the parents and sponsors of every child presented to receive the rite of baptism, has been already mentioned. John Michel Körn, the pastor of Brunn Am Geburgh, struck with the mildness of the symptoms of vaccination, gave on the Sunday immediately following his observation of them an account of the discovery from his pulpit. The paternal and affecting simplicity of his exhortation so wrought upon the hearts of those who heard him that eighty persons were shortly after vaccinated. On each ensuing Sabbath he repeated his invitation; and a physician attended to vaccinate any one who came forward at the close of the service. I am determined, said this philanthropist in a letter to Dr. De Carro, to have no more smallpox in my parish.

In October 1801, the Vaccine was sent from Breslau to Moscow, by Dr. Friese. It was transmitted on some of Dr. De Carro's ivory points, and on threads. The Russian Court was at that time in the ancient capital, on account of the coronation of the late Emperor Alexander. The Empress Dowager zealously promoted the new practice. She desired that the name of Vaccinoff might be given

to the first child who received the infection. The young Vaccinoff was then conveyed to St. Petersburgh in one of her Imperial Majesty's coaches, and placed in the Foundling Hospital, and a provision was settled on her for life.

Her Imperial Majesty continued to bestow every encouragement on the dissemination of the practice, and it soon became general throughout the Russian dominions. At a subsequent period the Emperor appointed a mission to carry the antidote to the more remote provinces of his empire, with the intention of ultimately reaching China and the whole of the northern parts of Asia.

On the 10th of August, 1802, the Empress, while residing at Pawlosk, sent a letter to Dr. Jenner signed with her own hand, which together with a valuable diamond ring she forwarded to him through Lord St. Helens, British Ambassador at the Court of Petersburgh. His Lordship on his arrival in England very politely wrote to Dr. Jenner, thinking that he was then in town. Finding that he was at Cheltenham his Lordship wrote a second note to this effect.

SIR,

Since writing my other letter to you of this date I have learned by the servant whom I sent with it that you are now at Cheltenham. I have to request, therefore, that if you do not purpose returning soon to London, you will have the goodness to commission some person to receive what I have brought you from the Dowager Empress of

Russia, consisting of a letter, and a small parcel containing (I believe) a ring set in diamonds. I shall probably remain in town till the 15th instant. I have the honour to be, with great regard,

Sir,

Your most obedient servant, St. Helens.

DR. JENNER TO LOED ST. HELENS.

My Lord,

I have been honoured with your Lordship's letters acquainting me with the distinguished mark of attention conferred upon me by the Empress Dowager of Russia. Sanctions like these, my Lord, from such exalted personages must necessarily be peculiarly pleasing to my feelings. They not only benefit me individually, but by blending with the general arguments for the universal adoption of vaccine inoculation, the annihilation of that dreadful disease the small-pox will be the more quickly accomplished.

May I request the favour of your Lordship to make known to the Empress the high value I set upon her Majesty's present, and to express my extreme gratitude and thankfulness for her goodness.

As I shall not be in London for some time to come your Lordship would oblige me in consigning the parcel to the care of Mr. Paytherus, Surgeon, No. 13, Norfolk-Street, in the Strand, who will faithfully transmit it to me.

I have the honour to be, my Lord,
Your Lordship's
Ever obliged, faithful
And obedient humble servant,
E. Jenner.

Cheltenham, 5th October, 1802.

Her imperial Majesty's letter was couched in the following terms.

#### MONSIEUR JENNER!

L'usage de la Vaccine en Angleterre ayant eu les succès les plus avantageux et les mieux attestés, je me suis empressée d'imiter cet exemple, en l'introduisant dans les establissemens pieux, qui sont sous ma direction. Mes soins remplissant parfaitement mon attente, je me plais à en rapporter le succès, et à en temoigner ma reconnaissance à celui, qui a rendue à l'humanité ce service signale. Ce motif m'engage, Monsieur, à vous offrir la bague ci-jointe comme une témoinage des sentimens d'estime et de bienveillance, avec les quels je suis votre affectionée,

MARIE.

Pawlosk ce 10 Août, 1802.

To this most gracious letter Dr. Jenner returned the following acknowledgement, in English as well as in French.

To HER IMPERIAL MAJESTY, THE EMPRESS DOWAGER OF RUSSIA.

Berkeley, October 10th, 1802.

MADAM,

I know not how to express a just sense of the obligation I feel myself under to your Imperial Majesty for your great condescension in addressing to me a most gracious letter, and for your goodness in presenting me with a most valuable diamond ring; a gem, Madam, that I trust will descend, with your illustrious name annexed, to my posterity through ages!

That the discovery I have had the happiness to an-

nounce should, fortunately, have attracted your Imperial Majesty's attention; and that you should have been pleased to extend its benefits through the charitable establishments under your protection, are gratifications to me of the most pleasing kind. Not only on me has your Imperial Majesty conferred a favour by your invaluable present; it will be felt by the whole world: for sanctions like these will materially tend to extinguish prejudice, and hasten the universal adoption of vaccine inoculation; and thus will the annihilation of a disease the most destructive that ever preyed upon the human race be accelerated, and millions of victims rescued from an untimely grave.

Permit me, Madam, humbly to present to your Imperial Majesty those Essays which I have written upon this important subject.

Long may your Imperial Majesty enjoy those soothing reflections so incessantly poured into those bosoms which are formed, like yours, to soften the distresses of human nature!

I have the honour to be
Your Imperial Majesty's most grateful,
obliged and devoted
humble servant,

E. JENNER.

## Madame,

Les paroles me manquent pour exprimer tout ce que je ressens de reconnoissance envers votre Majesté Imperiale pour avoir daigné m'addresser une très gracieuse lettre, accompagnée d'une bague de grand prix; mais infiniment plus précieuse pour être le don d'une Princesse encore plus distinguée par ses vertus, que par son haut rang dans les empires.

Ce present, pour moi inappreciable, sera confié après ma mort à mes descendans avec une legende qui marquera la source illustre d'où il m'est parvenu.

Il m'est assurément trés flatteur que la découverte, que j'ai eu le bonheur d'annoncer au public, ait attiré l'attention de votre Majesté Imperiale; et qu'elle ait bien voulu en étendre l'usage aux établissemens pieux sous sa protection.

Une telle exemple contribuera de la manière la plus efficace à éteindre les prejugés, et à hâter l'adoption universelle de la Vaccine.

De cette manière l'anéantissement d'une maladie la plus funeste peutêtre qui ait jamais affligée le genre humain, sera accéleré et des milliers de victimes sauvés de mort prématurée.

Permettez, Madame, que je saisisse cette occasion pour offrir à Votre Majesté, avec mon hommage respecteueux, quelques esquisses que j'ai écrites sur ce sujet important.

Puisse t'elle jouir pendant de longues années des douces reflections, qui sont le privilege precieux des âmes sensibles et bienfaisantes. Des telles reflections n'emanent que des cœurs formés, comme le sien, pour soulager les maux de la nature humaine.

J'ai l' honneur d'être
avec le plus profond respect
Madame,
De Votre Majesté Imperiale
le très humble devoué et reconnoissant
Serviteur,
Edward Jenner.

Berkeley, Compte de Gloucester.

This letter, together with a copy of his works on Vaccination, he forwarded to her Imperial Majesty, through Lord St. Helens. His Lordship, in reference to these affairs, writes thus:

LORD ST. HELENS TO DR. JENNER.

Old Burlington Street, 14th December, 1802.

I have received the honour of your letter and inclosure of the 9th instant; and yesterday I had the pleasure of a visit from Mr. Ring, who informed me that the volume of your publications on Vaccine Inoculation, which you intended as a present to the Dowager Empress of Russia, will be ready in the course of a few days.

I am sensibly obliged to you, Sir, for your attention in leaving open your letter to her Imperial Majesty, as I have perused it with very great satisfaction both in the original and the translation: which is, in my judgment, uncommonly well executed. I have therefore determined to send them both to her Imperial Majesty by the post of this evening, accompanied by a letter from myself explaining the circumstances that you have desired me to mention, and I shall take care to forward the volume of your Publications by the first messenger that may be dispatched for St. Petersburgh from Lord Hawkesbury's Office.

I hope I need not assure you, Sir, of the pleasure I feel in executing this commission: and that I shall be equally happy in availing myself of the first opportunity to assure you, in person, of the very sincere and high regard and esteem with which I have the honour to be, Sir,

Your most faithful and obedient servant,

ST. HELENS.

Among other distinguished individuals to whom Dr. Jenner sent his first work on vaccination was the celebrated Blumenbach. I believe it was delivered to him by Dr. Charles Parry, who was then pursuing his studies on the Continent. The ardent feelings of gratitude with which this eminent naturalist received the gift are thus expressed:—

DR. BLUMENBACH TO DR. JENNER.

Gottingen, Sept. 12, 1801.

SIR,

Accept my warmest and most cordial thanks for the very kind present of that immortal work by which you have become one of the greatest benefactors to mankind, as your great discovery is by far the most efficacious counterpoise to the ravages made by war and similar expedients for destruction of our fellow-brethren.

To show you in any way my grateful acknowledgment for your kindness to me I proposed you as a member to our R. S. and it needs not to tell you with what an unanimous applause they agreed to this proposition. I enclose here the certificate of your fellowship, and have the honour to be, full of the highest regard, Sir,

Your most obliged humble servant,

JNO. FREDK. BLUMENBACH.

P. S.—Give me leave, Sir, to tell you also that I, as a very warm friend and even teacher of Natural History, long very eagerly to see once your paper on the migration of birds, mentioned in your masterly observations on the cuckoo.

The Royal Society of Gottingen had the honour of setting the example to the other learned societies of Europe, by electing (unanimously) the illustrious author of Vaccination an honorary member of their body. Dr. Jenner received this mark of respect with great satisfaction.

Dr. Jenner to Professor Blumenbach.

Among the favours conferred upon me, since I had first the happiness of calling the attention of mankind to the subject of vaccine inoculation, there is not one which I esteem more highly than that from the University of Gottingen.

Give me leave to request that through you, Sir, my sincere thanks be presented to the learned body who have so kindly made me the object of their attention; and to assure them that I shall ever retain a grateful sense of the obligation.

Permit me, particularly, to thank you for your very friendly letter. My observations on the migration of birds have not yet been published. I shall, if possible, present a paper on the subject to the Royal Society this winter: but latterly my attention (as you may suppose) has been so incessantly occupied by that of the cow-pox I have found it impracticable to wander into other paths of natural history; a branch of science which, I know, is the delight of your heart as well as mine, and which you have cultivated not only with ardour, but with effect.

A friend of mine, who has lately practised vaccine inoculation very extensively, has circulated the enclosed paper of directions. It contains some very useful and necessary rules, yet probably nothing with which you are unacquainted.

The state of feeling in France at this time, with respect to vaccination, may be gathered from the incident which I am about to mention. On the arrival of the British Ambassador, the Most Noble Marquess Cornwallis, at Amiens, the members of the Jury of Health and the Medical Committee of the Department of the Somme were so deeply impressed with the magnitude of the discovery of the "immortal Jenner" that they thought it a fit subject of congratulation to the British Ambassador. address was duly presented, and afterwards forwarded to James Moore, Esq. by his gallant and most deeply lamented brother, the late General Sir John Moore, who was attached to the Embassy. interesting document is printed in the Medical and Physical Journal, vol. 7, p. 201.

To elucidate the preceding narrative, I select from the communications of some of Dr. Jenner's foreign correspondents a few documents, which will convey much more accurate information of the state of feeling in the different countries from which they were written than I could effect in any other way. The list might have been swelled to a great amount; but I have inserted none except such as contain facts, of themselves, important; and which could not have failed to have been deeply interesting to Dr. Jenner.

DR. DAVIDS TO DR. JENNER.

Rotterdam, 24th March, 1801.

To the Benefactor of Mankind, Dr. Jenneb. Sir,

I was happy enough to introduce the cow-pox through the whole country with the greatest success, and the name of Dr. Jenner is adored. In a few days my translation of your essay on the cow-pox will be published.

The cox-pox inoculation was introduced just at the moment the small-pox made ravages through the whole country; but thank God not one is infected after the vaccine.

I will take the liberty of sending you one of my translations, and in the preface you will find an observation about an Arabian manuscript found in the Leyden Bibliothec:

In the spring I should be very happy to have a little fresh matter from the cow.

After assuring you of my sincere feelings and respect,

I remain,

Sir,

Your most obedient humble Servant,

L. DAVIDS, M. D.

DR. WATERHOUSE TO DR. JENNER.

Cambridge, 30th May, 1801.

MY DEAR SIR,

A few months ago I sent you a portion of infected thread, being the *first crop* of your own matter. I also sent you a portion of your own thread that you might see

if it had lost any of its power by twice crossing the Atlantic. I now again send you a portion of your own virus, being a part of that *identical* thread which you, in conjunction with Mr. Ring, took from the arm of a patient on the *third day of last March* in London, that experiment may be made respecting its activity at a still greater length of time. I have about as much more left, which I will send in perhaps two months hence. It is now within four days of being *three months* old, and it had not lost its activity ten days ago.

A few days ago the Attorney General of this Commonwealth made me the following communication.

"On the 16th of the present month (May) 1801, when on the circuits, I passed through the town of Pelham, in the County of Hampshire, in company with Chief Justice Dana. We stopped at an inn kept by one Hyne. His wife, sitting in a chair, appeared to be indisposed. She informed me that she had the kine-pox; that she had taken it from a cow she had milked; that three others in the family had caught it in the same way from the same cow. I examined her arm; it was much inflamed, more especially above the elbow. There were sores very much like those in the human flesh made by small-pox taken in the natural way. Her husband said the cow's teats had been sore, but had recovered."

The Attorney General Mr. Sullivan is truly a man of intelligence. He is President of the Historical Society, author of the History of the Province of Maine (See Mass-Register, p. 170,) and has seen the kine-pox in his own family. I therefore am inclined to believe that we have the distemper among the kine of this region.

I have just received a packet from Mr. Dunning of Plymouth Dock. He quotes a passage from a letter of yours which has engrossed my mind almost entirely. It is this: "Are you inoculating your dogs yet in the West? That vaccine inoculation should give that disease which from its universality has been long termed the distemper is a new wonder in its history. But so it is. If you are not already acquainted with it, I will give it to you in my next."—What can this be?

You will doubtless rejoice with me that the vaccine inoculation is progressing here to my entire satisfaction. I began with the matter you, Drs. Lettsom, Woodville, Pearson, and Creaser sent me the 24th of March, and have inoculated not quite a hundred, and have not had one dubious case among them all. I have given the virus to most of the leading physicians in Boston and its vicinity. But, alas! poor human nature! thou art the same in New-England as in Old. Why should the sigh of sorrow arise in any one, when contemplating the progress of a practice so universally beneficial as that resulting from this new inoculation? But so it is-all the little contemptible nonsenses that have been uttered by imbecility and envy on your side the Atlantic have been retailed here. They have given a temporary check to the inoculation in the country villages, for which I am not sorry; but while the public see that all those characters throughout the country most distinguished for their talents and acquirements are firm believers in the Jennerian inoculation, it will and must prevail.

The inoculation finds no promoters in Philadelphia. I have had many letters lately on the subject from Virginia, where it is of vast importance to their plantations.

That the learned view it as a permanent blessing to this country may be inferred, among other things, from a passage in the history of Cambridge, just published by a

worthy clergyman, viz: "The kine-pox was introduced at Cambridge this present year (1800) by Professor Water-house, who imported the *matter* from England. The first who was inoculated for this disorder in America was Daniel Oliver Waterhouse," a son of the professor.

Accept, dear Sir, the assurances of high consideration and esteem.

BENJAMIN WATERHOUSE.

DRS. BALLHORN AND STROMEYER TO DR. JENNER.

JENNERO Summo Viro, S.

Georgius Fredericus Ballhorn, Augustissimi Britanniarum Regis in Aula Electorali Medicus, et Christianus Fredericus Stromeyer, A. B. R. in Aula Electorali Chirurgus.

Transmittimus ad Te, vir illustris, et judicio tuo, quod tantum apud nos fidem habet, subjicimus observationes de insitione Vaccina Hannoveræ a nobis institutas. Libelli fronti insigne nomen tuum præposuimus. Ne graveris hoc, quod tenuis Musa nostra in Te conferre satagit, reverentiæ et amoris documento. Felices nos sanè puteremus, si res ipsa quam pertractavimus tuo assensu haud careat!

Materiam vaccinam, quam XVI mensibus circiter præterlapsis, benevole, ad nos transmisisti, Londinensi anteponimus. Londinensis enim sæpius effecit exanthemata satis molesta et pertinacia. Quæ quidem incommoda nunquam ab egregia illa materia, quam Tu in agris Anglicis collegisti, nobis subnata sunt. Maximoperè itaque Te

rogamus, ut iterum pauxillo hujus egregiæ materiæ, pro tua humanitate, nos donari haud graveris.

Vale, Vir Summe, et serva nobis tuam benevolentiam.

Scriptum Hannoveræ, d. 10 Junii, 1801.

Extract of a letter from Dr. Waterhouse to Dr. Jenner, dated Cambridge (America) Nov. 5th, 1801.

The characters in America most distinguished for wisdom and goodness are firm believers in your doctrine. They are not, however, over-forward in assisting me against this new irruption of the Goths. I do not wish them to do more than make cartridges, or at least hand them. At present they leave me too much alone, and it is probable will only come openly to my assistance when I do not want them. Had I not a kind of apostolic zeal I should at times feel a little discouraged. The natives of America are skilful in bush-fighting.

#### M. SAMARD TO DR. JENNER.

Avignon, December 12th, 1801.

SIR,

Your precious discovery is known to-day in the smallest villages of France. We have drawn our profit of its efficacy in this town to preserve our citizens from the dangerous effects of the natural small-pox; consequently we are indebted towards you of a portion of the common gratitude. We pay it with great satisfaction.

Receive our tribute with goodness. If we could do better nothing would be spared most certainly. Be flattered of being accounted amongst the Associates of our

Lyceum, because this title is the price of the sentiment and of the eminent service you have rendered to mankind.

I am, Sir,

Your most obedient and humble servant,
SAMARD.

Extract of a letter from Dr. De Carro of Vienna to Mr. Ring, dated December 18th, 1801.

After nearly three years of success I need not tell you what I think of vaccination: I know of no encomium that can give an adequate idea of that blessing to mankind.

Remember me to Dr. Jenner. No medical man ever excited my admiration and veneration so much. He is not only great by the magnitude of his discovery, but he is also great by the manner in which he conducted his researches; by the perfection which he gave to them before he published his work, and by the extreme modesty with which he speaks of himself. His fame increases daily; but I blush for all sovereigns, and all governments, that have not hitherto bestowed any public mark of their gratitude on that immortal benefactor of mankind.

## DR. MARCET TO DR. JENNER.

Dr. Marcet presents compliments to Dr. Jenner, and called upon him the other day to request he would have the goodness to let him have a little Vaccine virus, such as could be depended on as to its genuine origin.

It is to be sent to Copenhagen where Dr. Winslow, Professor of Medicine, wishes to promote the introduction of the cow-pox, and is very anxious to get some virus from the most respectable source. Some impregnated threads might be most easily and speedily sent in a letter; but if Dr. Jenner thinks necessary to send it in any other shape Dr. Marcet will find some other conveyance.

Professor Pictet of Geneva, the editor of the Bibliothepue Britannique, and a natural philosopher with whose name Dr. Jenner is probably acquainted, will be here in about a fortnight on a visit to Count Rumford at whose house he is to reside. Professor Pictet in a letter which he wrote to Dr. M. a few days ago expressed a great wish to become acquainted with Dr. Jenner. Dr. M. hopes he will be allowed to introduce his friend to Dr. Jenner, and will be extremely happy in taking the first opportunity of bringing together two men who cannot fail to find much reciprocal pleasure in each other's conversation.

St. Mary Axe, 26th May, 1801.

Translated Communication from the College Advertiser of Copenhagen, dated 19th December, 1801.

# (Abstract.)

The committee received his Majesty's commands to collect information concerning the vaccine inoculation—to form an opinion of the experiments made, and to propose such further arrangements as may be needful in his Majesty's dominions.——The committee observing a very great mortality amongst those who have the small-pox, we repeated, on the 24th of November, our former advertisements, and have received seventeen different communications.

The experiments and observations of the committee amount to 297 cases, and the greatest number thereof by me Winslow, Professor, partly tried in our presence and under our inspection; those of other practitioners amount

only to 408, and from the most exact observations the committee makes the following observations.

1st. That the vaccine inoculation, at least for some time, prevents the contagion of the natural small-pox, and notwithstanding the small-pox are at present of a very dangerous and epidemical nature, yet nothing creates a suspicion that those who were vaccinated have been infected with it. A few vaccinated have, eight or ten days after inoculation, caught the small-pox, but the committee attributes this only to a prior infection before the vaccine had taken effect.—From experiments of other nations, particularly the English, there are reasons to hope that the contagion of the natural small-pox throughout futurity can be entirely annihilated by the vaccine.

2nd. That the vaccination is not attended with danger, as the greatest number are hardly ill at all, and are not prevented following their usual occupations.

3d. That there is no ground for suspicion that the constitution of the vaccinated has been thereby impaired, or any other diseases produced.

4th. That the vaccination of persons of all ages, weak and robust, during dentition or not, appears to proceed in the usual way, without alteration in the constitution. And lastly,

5th. That the cow-pox does not infect but by immediate touch of the matter.

It is the opinion of the committee that those whose minds are unenlightened, whose circumstances are very limited, and whose prejudices call for wholesome advice and amongst whom the small-pox are particularly mortal, ought to be encouraged to the vaccine inoculation; also the soldiers with their wives and children, who have not had the small-pox, and the crews on board of ships bound on

long voyages. That the vaccine inoculation should also be performed in the different institutions for the poor in this city, &c. all public schools, especially where the children are taught gratis, and every one of the lower class and of the populace, who have not their own physician, without expense: to perform which the committee proposes Mr. William Stebuss, Candidatus Chirurgiæ, Surgeon to the Royal Regiment of the Norway Foot Guards, and Amanuensis with me Winslow, Professor, as he has much practice, not only in performing vaccination under the immediate inspection of the committee, but also to mark the progress of the malady, and to collect and preserve the vaccine matter for further use and distribution.

To extend the benefits of vaccination in the country and the provinces, all governors, supreme judges, owners of landed property, bishops, clergymen, and schoolmasters, should be requested to encourage the same in their respective spheres. The committee has no doubt of the Rt. Rev. Bishop Balles' vigorous support in this case, as his own children have been vaccinated; nor of the physicians' ready co-operation. The committee foresee that if the vaccination should not be continued with every possible carefulness it will in a short time be extinct; and recourse must then be had to import from other places the cow-pox matter, which may prove very unsafe.

I Winslow, Professor, have therefore, agreeably to the request of the committee, not only every tenth day inoculated all those who are come to me; but I have also preserved the vaccine matter in proper glasses that safely can bear conveyance, and a quantity thereof has already been sent to several places in this country, as also to Sweden.

Dated Copenhagen, in the committee appointed by his Majesty for the Vaccination, the 5th December, 1801.

(Signed)

AASKOV; GULBRAND; CALLISEN; WINSLOW; WIBORG.

The foregoing having been laid before his Majesty by the college, the Monarch has been pleased to give his approbation to all the proposals of the committee, commanding the same to be communicated to the college for his German domains.

#### CHAPTER XII.

PRESENTATION OF PLATE BY HIS FRIENDS IN GLOUCES-TERSHIRE.—FIRST PARLIAMENTARY GRANT,

The preceding detail must have convinced the reader that Dr. Jenner considered every thing but his private interest in all that he did, from the time of the publication of his Inquiry. Indeed, he "never sought his own;" and would, at any time, have allowed whatever regarded his personal welfare or convenience to be put aside, provided he could thereby promote the benefit of others. To such an extent did this feeling prevail that he not only sacrificed his professional advantages, but offered likewise to disburse largely and liberally from his own private fortune in order to assist in conveying the salutary preventive to the most distant parts of the globe.

It became those who knew the generosity of his nature and the smallness of his own means to take

care that he who had imparted a secret to his fellow-creatures, which in another age would have secured to him boundless wealth and honours all but divine, should not, whilst studying to preserve the lives of others, be himself compelled "to study to live."

He not only had relinquished all possibility of peculiar or private benefit by disclosing in the most unreserved manner the grand result of his labours, but he likewise spent a great deal of time, and incurred much expense in enabling others to profit by his discovery. When all this was done it is to be remembered that he was by no means in independent circumstances; he had a family and many relatives who looked to him for support and protection; and he was still compelled to pursue his practice as a physician.

That, of course, had been very much interrupted by the frequent change of his residence from Berkeley to Cheltenham and London; but, independent of this, his correspondence became so extensive as to occupy almost all his time and to make him a most laborious servant of the public, for their great and exclusive benefit; whilst there was nothing of advantage left to himself but the consciousness that he was so employed.

Under these circumstances it was thought that the magnitude of his discovery and the very disinterested manner in which he was sacrificing his time and his property in diffusing its blessings were fit subjects for the consideration of the British Parliament. After due deliberation, it was determined that his claims should be brought before the House of Commons by petition.

By this mode of proceeding the proofs of the utility of the discovery, and the right of Dr. Jenner to that discovery, would be placed in such an unquestionable shape as to put to silence all gainsayers; and it would demonstrate how much his own private fortune had suffered by his endeavours to serve others.

Previously, however, and in a degree preparatory to a direct application to the great national council, some of the chief personages in Gloucestershire began to take measures to give a testimony of the value in which he was held by those who knew him best and amongst whom his life had been spent.

An advertisement appeared in the Gloucester newspapers expressive of these sentiments. The concluding paragraph pointed also to a remuneration of a different kind, in some degree adequate to his deserts and to which he had the best-founded claim, a claim on the justice and gratitude of the British nation.

The late Earl of Berkeley took the lead in this becoming expression of public feeling. He wrote letters to those elevated by rank and fortune to co-operate with him in this measure. From some he received answers that could not well have been anticipated: such backwardness, however, did not retard the general sentiments of the county. Dr. Jenner's friends exerted themselves with an energy which more than counterbalanced any discouragements they met with. The Countess of Berkeley also applied herself with her usual earnestness to effect the object. Her ladyship, assisted by Mr. Henry Hicks, the Rev. Mr. Pruen, and other personal friends of Dr. Jenner, had the satisfaction, in a short time, of seeing such a list of subscribers as enabled them to give an order for a small service of plate, which was executed by Messrs. Rundells and Bridge, with appropriate devices and the following inscription:-

Presented
by the
Nobility and Gentry
of the
County of Gloucester
to their Countryman
EDWARD JENNER, M.D., F.R.S.,

as a Testimony of the high sense they entertain

those eminent abilities which discovered, and

that disinterested philanthropy which promulgated, the Vaccine Inoculation.

The sentiments entertained by the principal promoters of this design will not be uninteresting to those who venerate the character of Jenner. They are expressed with great propriety by the Earl of Berkeley, in the following letter:—

EARL OF BERKELEY TO THE DUKE OF BEAUFORT.

Berkeley Castle, Nov. 18th, 1801.

My Lord,

Having received a proposal from a gentleman in this county for a subscription towards a piece of plate as a public mark of esteem to Dr. Jenner, the person to whom every father of a family owes the greatest obligation in preventing the dreadful effects of the small-pox, by finding out and introducing the vaccine inoculation.

Before the subscription paper is further offered to notice I take the liberty to convey it to your Grace for your approbation, supposing you to be convinced, as I am, of the general benefit it has been and will be to the human race.

Your name to it will sanction the proceeding, and tend to establish the general good that will arise to the world at large, and more particularly to that of the county of Gloucester.

> I have the honour to be Your Grace's most obedient Humble servant,

BERKELEY.

His Grace the Duke of Beaufort, &c. &c. &c.

Whilst these things were going on, Dr. Jenner was partly at Cheltenham and partly at Berkeley.

His affairs, however, did not permit him to remain long in this his favourite retreat. He was under the necessity of leaving it, with his family, on the 9th of December, for London.

No one, who has not seen the extent and variety of his correspondence, can form any idea of the labour and anxiety to which he was incessantly exposed at this and subsequent periods of his life. The subject of vaccination, though sufficiently simple, had been but imperfectly studied; and every individual thought himself at liberty to write to Dr. Jenner for that information which they might have obtained from his published writings. His patience was inexhaustible; and I believe he did all in his power to convey such information as was required of him. His own immediate interests now called for his presence in London; as it had been resolved that his claim should be brought before Parliament in its next session.

In a matter of so much moment it was highly desirable that nothing should be lost by overlooking or neglecting any of those measures which either custom or propriety had sanctioned, while attempting to arrest the attention of so distinguished an assembly as the British House of Commons. As the application ultimately referred to a moneygrant it was necessary that the consent of his Majesty's ministers should be first obtained. Dr. Jenner had an interview with the premier on this subject, on the 12th of January, 1802. This con-

ference was highly satisfactory. Unqualified approbation was expressed of the measure by the minister, and he fixed upon an early day for the presentation of the petition. Mr. Addington spoke likewise strongly in praise of the discovery, and of the benefit that all the world was likely to derive from it.

The next point regarded the selection of a proper individual to present the petition to the House. the army and navy had both benefited largely by the practice of vaccination, it was thought advisable to entrust the petition to some of the official gentlemen connected with these departments of the state. Th arrangement however was not adopted. The eminent persons who had formerly evinced so warm an interest in the cause of vaccination did not neglect its author on this occasion. Among these are to be named the Honourable Admiral Berkeley, M. P.; W. Wilberforce, Esq. M. P.; Sir Henry Mildmay, Bart. M. P.; Lord Rous, Lord Berkeley, Lord Egremont, Lord Sherborne, &c. &c. &c. The sentiments of some of these distinguished persons may be collected from their letters written on this topic.

LORD ROUS TO HIS SISTER, LADY PEYTON.

Stenham Hall, January 8th, 1802.

DEAR SISTER,

I shall be extremely happy to be of every service to Dr. Jenner in my power, but with respect to writing my-

self to Mr. Pitt I am very doubtful of its being of any service; surely the Duke of York, as head of the army, and Lord Spencer as head of the navy, are the proper persons to take the lead with the Minister: it cannot be supposed that Mr. Pitt, who knows every thing, should not be acquainted with the introduction of cow-pox, though he may not have had time to inquire into the detail of it, or to inspect patients as you and I do. If I do write to Mr. Pitt I think it should be thus: That I have heard the subject is likely to be inquired into by Parliament, and that I shall be very happy either by letter or by a conference with him when I go to town, to state all that I have made myself master of, confident that if he personally entertains any doubts of the security of the practice, or the incalculable benefit likely to accrue to mankind, I shall be able to remove them.

In my own opinion there will be no occasion for very minute inquiries; the Minister will grant a reward, or he will not do it, and it will be decided whether he will do it long before it is brought before Parliament; at least it will not be worth trying for unless Mr. Pitt sanctions the application. Some of the medical men in England will certify that the cow-pox is completely established, and their testimony would outweigh a thousand certificates from those not of the profession.

LORD SHERBORNE TO DR. JENNER.

MY DEAR DOCTOR,

Many thanks for your circumstantial letter; I am sorry to say I do not know Mr. Addington, even by sight; they tell me the King is recovering very fast, and we may expect a drawing-room soon, which I will attend and I will

then speak to Mr. Pitt. If patriot Grattan gets 50,000l. for his patriotism, the true patriot Jenner deserves much more: I am sure not less; and less would be perfectly shabby to think of. I perfectly recollect Grattan's business:—it was settled among his friends to propose 100,000l. for him; determining to ask enough, and fearing that sum should not be granted, one of his most particular friends was to get up afterwards and propose 50,000l. which was immediately granted, and he took 47,500l. for prompt payment.

I am, my dear Doctor,
Yours most truly,
SHERBORNE.

Sherborne, April 23d, 1801.

THE HON. ADMIRAL BERKELEY TO DR. JENNER.

Friday evening.

DEAR SIR,

I have arranged every thing with respect to the Committee, and as I find Mr. White was employed by you to draw up the petition, I consulted him upon the best means of conducting it. He wishes to see you with the heads of the allegations you mean to prove, and I have therefore desired him to write to you upon the subject, because he will put us in the way of calling evidence with the least inconvenience; as the respectable characters who are likely to appear will probably wish to be kept as little time as possible, and of course we ought to accommodate them as much as the nature of the case will admit. If you wish for any assistance which you may think me capable of affording before you see Mr. White, I hope you will believe you

cannot afford me a greater satisfaction than by employing me: being with great truth

Sincerely yours,

G. BERKELEY.

I think if you was to write a letter to Mr. Wilberforce desiring him to second the motion, or to Mr. Lascelles, his colleague, the representatives of so large a county as Yorkshire might be thought most creditable in an affair of this sort, especially as the most proper person (the Marquis of Worcester) will not be in town.

I remain sincerely yours,

G. B.

From W. Wilberforce, Esq. to Dr. Jenner.

Palace Yard, Feb. 24th, 1802.

MY DEAR SIR,

I have often thought of addressing you on the subject we conversed about formerly, that I mean of your valuable discovery becoming the topic of parliamentary discussion, with a view to your receiving some compensation for your eminent services to the community. I hoped long ere now to see the matter brought forward. I always intended whenever it should be so to give you my best assistance on a principle of duty. I really thought, as I told you, that there were reasons why I was by no means an eligible introducer of the subject, and I could not just now undertake it, on account of my being engaged to render a similar service (though contrary to my own judgment) to another gentleman. But are you aware that Friday next is the last day for presenting private petitions, and that a petition is the proper mode of bringing your discovery before Parliament?

If I can be of any use in advising you I shall be unaffectedly glad, and in rendering you any assistance I am able.

At all events, I am persuaded you will do justice to the motive which prompts me to address you thus frankly, and believe me with esteem and regard,

Dear Sir,

Your faithful servant,
W. WILBERFORCE.

Sir Henry Mildmay addressed him on the same subject: he said "I consider the value of your discovery is now so fully ascertained and confirmed by experience, that you would be unjust to your own interest if you were to postpone your application any longer. If I can be of any service to you in taking the part you may assign me in prosecuting your claims I shall be very happy to do so, be that part what it may; as, perhaps, there are few members of the House who can speak with greater authority on the extensive benefits the public have derived from your discovery than myself. I still think that your petition would come forward with greater effect from some person high in office, but should you be disappointed in all the promises you have received, I will very readily bring the subject before the House for you; or I will second it, whenever it does come forward: in whatever shape it may appear I shall consider myself bound in duty to give it every support in my power, and to give my reasons for doing 50."

On the 17th of March, 1802, the following petition was presented.

To the Honourable the Commons of the United Kingdom of Great Britain and Ireland, in Parliament assembled.

The humble Petition of EDWARD JENNER, Doctor of Physic,

SHEWETH,

That your petitioner having discovered that a disease which occasionally exists in a particular form among cattle, known by the name of the cow-pox, admits of being inoculated on the human frame with the most perfect ease and safety, and is attended with the singularly beneficial effect of rendering through life the persons so inoculated perfectly secure from the infection of the small-pox.

That your petitioner after a most attentive and laborious investigation of the subject, setting aside considerations of private and personal advantage, and anxious to promote the safety and welfare of his countrymen and of mankind in general, did not wish to conceal the discovery he so made on the mode of conducting this new species of inoculation, but immediately disclosed the whole to the public; and by communication with medical men in all parts of this kingdom, and in foreign countries, sedulously endeavoured to spread the knowledge of his discovery and the benefit of his labours as widely as possible.

That in this latter respect the views and wishes of your petitioner have been completely fulfilled, for to his high gratification he has to say that this inoculation is in practice throughout a great proportion of the civilized world, and has in particular been productive of great advantage to these kingdoms, in consequence of its being introduced, under authority, into the army and navy.

That the said inoculation hath already checked the progress of the small-pox, and from its nature must finally annihilate that dreadful disorder.

That the series of experiments by which this discovery was developed and completed have not only occupied a considerable portion of your petitioner's life, and have not merely been a cause of great expense and anxiety to him, but have so interrupted him in the ordinary exercise of his profession as materially to abridge its pecuniary advantages, without their being counterbalanced by those derived from the new practice.

Your petitioner, therefore, with the full persuasion that he shall meet with that attention and indulgence of which this Honourable House may deem him worthy, humbly prays this Honourable House to take the premises into consideration, and to grant him such remuneration as to their wisdom shall seem meet.

The prime minister, Mr. Addington, (now Viscount Sidmouth) informed the House that he had taken the King's pleasure on the contents of the petition, and that his Majesty recommended it strongly to the consideration of Parliament. It was referred to a committee, of which Admiral Berkeley was appointed chairman. This honourable gentleman rendered most essential service on this occasion, and bestowed unceasing attention on all the details connected with this very interesting investigation. The points to which the committee chiefly directed their inquiries were

First, The utility of the discovery itself.

Secondly, The right of the petitioner to claim the discovery.

Thirdly, The advantage in point of medical practice and pecuniary emolument which he has derived from it.

Upon all these matters the committee reported, after examining a number of witnesses of the highest character and most extensive experience in the profession. The testimony, likewise, of persons not professional was admitted; among these we find his Royal Highness the Duke of Clarence, the Earl of Berkeley, Lord Rous, and Mr. Gardner. The result of this examination went to prove, in the opinion of the committee, that the discovery of Vaccine Inoculation was of the most general utility, and that it tends to eradicate, and, if its use become universal, must absolutely extinguish one of the most destructive disorders by which the human race has been visited.

A great mass of written evidence was also submitted to the consideration of the committee. It related to the extensive and successful practice of vaccination in every quarter of the globe; and showed the estimation in which the discovery was held in other countries. The committee likewise investigated the difference between the new practice and the inoculated small-pox, and that disease when caught in the natural way.

With respect to the new practice the oral depositions, as well as all the written documents from abroad, were uniform and decisive in favour of Dr.

Jenner's claim to originality in the discovery. Some pretensions were advanced adverse to these claims, as well as to the utility of the discovery itself, but after the closest examination they had no weight with the committee. As, however, they were urged with considerable pertinacity both before the committee, and in another form, it will be necessary to examine them.

Upon the last division of the subject the committee found that Dr. Jenner had not only reaped no advantage from his discovery, but that he was a considerable loser: that he had relinquished the prospects of emolument, by propagating and extending his important discovery, and rendering it rather of universal utility to the human race than of pecuniary or private advantage to himself.

As the evidence on which this report is founded has been already published at length by the Rev. George Jenner, I will only mention a few of the principal statements, and refer to that work for fuller information.

Sir Everard Home established the fact that Dr. Jenner had, in the year 1788, carried a drawing of the Variolæ Vaccinæ, as the disease appeared on the finger of a milker, to London. Mr. Hunter urged him to prosecute the inquiry, and mentioned the prophylactic powers of the cow-pox both privately and in his public lectures. Sir Everard proved his own confidence by inoculating one of his own children with it.

Dr. Ashe's evidence went to show that the vac-

cine had not been known abroad till after Dr. Jenner's publication of his "Inquiry." He considered the discovery of the utmost importance, and had vaccinated three of his own children.

Sir Walter Farquhar said that Dr. Jenner's was the greatest discovery that had been made for many years: that if Dr. Jenner had kept it a secret he might have made 10,000%. a-year.

Mr. Cline coincided in this opinion, adding further that he considered it the greatest discovery ever made in the practice of medicine.

Dr. Bradley never heard of any one as the discoverer except Dr. Jenner, and believed that he might have, at first, made 10,000*l*. per annum, and in five years double that sum had he kept the discovery a secret.

"Two millions" he said, "have been already vaccinated in the world; of these two millions not an individual is known to have died in consequence of the affection."

Dr. Sims considered it the greatest and most useful discovery ever made in medicine; and that Dr. Jenner, had he kept it a secret, might have died the richest man in these dominions.

Sir Gilbert Blane had at first been sceptical, and his prejudices were rendered stronger than ever by the events which had occurred at the Small-pox Hospital. Further inquiry removed his doubts, and led to a complete conviction of the truth of all that had been alleged by Dr. Jenner.

Dr. Baillie said "I think that the cow-pox forms

an extremely mild disease, and that when a patient has properly undergone it he is perfectly secure from the future infection of the small-pox: and further, if Dr. Jenner had not chosen openly and honourably to explain to the public all he knew upon the subject, he might have acquired a considerable fortune. In my opinion it is the most important discovery ever made in medicine."

Lord Berkeley's evidence was of a strong practical nature, drawn from the experience of his own family. He mentioned a very important fact, that an old servant of his "now seventy years of age, who had the cow-pox from milking cows when a boy fifteen years old, from that time has never been in the least cautious in guarding himself from the small-pox, but, on the contrary, has exposed himself repeatedly, without being sensible of its effects."

Lord Rous gave evidence to the same effect; his lordship's own child, three months old, was vaccinated the year before, and he was perfectly satisfied that it was protected from small-pox.

His Royal Highness the Duke of Clarence stated that he began Vaccine Inoculation in 1798; since which time he had caused it to be practised among his household and farm-servants. His Royal Highness brought forward some very strong facts drawn from his own observation, illustrative of the prophylactic virtues of cow-pox. His Royal Highness had offered to inoculate with cow-pox all his adult servants who had not had the small-pox. A postilion of the name of Johnston positively refused to be vac-

cinated. About eighteen months afterwards he caught the small-pox. It was of a virulent and confluent kind. Several children who had been previously vaccinated were constantly exposed in the room where this boy lay, but they escaped unhurt.

Mr. Gardner proved that Dr. Jenner in the month of March, 1780, had informed him of the nature of the cow-pox, and communicated at the same time his design of perpetuating that affection from one human being to another.

It is needless to specify particularly the evidence of the other gentlemen who gave their testimony in favour of Dr. Jenner's claims, but I cannot conclude this abridgment without alluding to what was said by Dr. Lettsom and Mr. Ring. The former gave some very valuable statistical information respecting the mortality of small-pox before and after the introduction of inoculation for that disease. He spoke from extensive experience of the virtues of vaccination, and of the accuracy and originality of Dr. Jenner's information. He thought, from the success of the Suttons in monopolizing small-pox inoculation, that Dr. Jenner might have kept his practice a secret, and gained incalculable riches.

Mr. Ring said that Dr. Jenner's discovery was beyond all comparison the most important and valuable ever made by man. This, he said, was the opinion of all his correspondents, and like all others who could form an accurate opinion, he believed that Dr. Jenner's annual emoluments might have been at least 10,000*l*.

The evidence of every other medical gentleman who was examined, with the exception of that of an adverse nature, which I am presently to notice, concurred alike in the utility of the discovery and in favour of Dr. Jenner's claim to originality.

To impugn this claim efforts of a very extraordinary kind were made. The individual who signalised himself on this occasion has already been made known to the reader both by the disasters which attended his early attempts at vaccination, and by his officious eagerness in propagating his own errors through the medium of a public institution.

Dr. Pearson learnt, from the correspondence which he opened with medical men in different parts of England, that cow-pox was much more extensively epizootic than had been imagined. It was known in many counties, but it was in Dorsetshire and Devonshire that it seems to have been particularly observed.

The Rev. Herman Drew had received information on the subject from Mr. Downe, surgeon, in Bridport; Mr. Bragge, of Axminster; and Mr. Barnes, of Collyton. The information received from those gentlemen was conveyed by Mr. Drew to Sir George Baker. It is impossible to ascertain the precise contents of these documents. It is, however, certain that they were not deemed of sufficient importance by that eminent and enlightened physician either to be given to the public or to render him very anxious for their preservation, as

they remained unheeded, and have been allowed to perish. It is probable, therefore, that the know-ledge obtained by Mr. Drew from his medical acquaintance in the country did not extend beyond the simple fact which had been observed in those districts where cow-pox prevailed; and, that in communicating it to Sir George Baker, he really did no more than Jenner himself had done when he told John Hunter what he had heard of cow-pox in Gloucestershire, nearly thirty years before he had completed his inquiry.

Of Dr. Pearson's statements before the Committee of the House it is by no means easy to give a lucid view. He sets out with asserting that he was conversant with the vaccine inoculation ever since January 1799, and as though he would bespeak credit for himself by exciting a partial sympathy for Dr. Jenner's claims, he thus proceeds: "I think it but justice to Dr. Jenner to state that I am acquainted with the practice of inoculation of persons for the small-pox, who on good evidence have been said to have gone through the cow-pox since June or July 1798—the result of which was that they could not receive the small-pox infection." He then goes on to say, in answer to questions put by the Committee, that his own knowledge of the vaccine inoculation was obtained by him " in the first instance from Dr. Jenner; afterwards I got information from other sources." These sources have been already mentioned—and, with respect to the information derived from them, Dr. Pearson declares that he imagines that it and Dr. Jenner's first publication "were independent of each other." He next states that Mr. John Hunter did not mention in his lectures the inoculation of the cow-pox, but simply that persons who had had that disease could not take the small-pox, and that it had not been known to prove fatal in any one instance; that the Rev. Herman Drew did not lay claim to the discovery of inoculating with vaccine matter from one human being to another; that that discovery was exclusively Dr. Jenner's; that the events mentioned in the documents handed in took place earlier than 1798, because immediately on the publication of Dr. Jenner's Inquiry in that year he, Dr. Pearson, wrote to the gentlemen who furnished the information, and they "immediately communicated their cases of vaccine inoculation without appearing to be acquainted with Dr. Jenner's work."

The reader, from this last sentence, would certainly believe that Dr. Pearson's correspondents had themselves practised vaccine inoculation, but the very reverse was the fact. Mr. Drew in his letter to Dr. Pearson merely states, on the authority of Mr. Dolling of Blandford, that he (Mr. D.) had inoculated many hundreds for the small-pox who said they had had the cow-pox, and that very few of them took the infection.

The same person mentioned the conduct of a mother who had caused five of her children to play with the teat of a cow, by which they were infected, and that they resisted small-pox afterwards. He added that a farmer of the name of Jesty, at Yetminster, had gone a step further than this good woman; that he inoculated his wife and children with matter taken from the teats of a cow that had the cow-pox. In about a week from the time of inoculation their arms were very much inflamed, the patients were so ill as to require medical assistance; yet they had since been inoculated for the small-pox by Mr. Trowbridge, but did not take it.

A letter from Dr. Pulteney to Dr. Pearson gave the same facts mentioned above, and on the same authority, namely, that of Mr. Dolling. In another letter from Mr. Drew he mentions that about twenty years before a woman inoculated her children with matter taken from the cow on the point of a large needle. This dame was not only a vaccinator herself, but her "children have since inoculated their friends and neighbours whenever an opportunity has offered."\*

Excepting the attempts of Farmer Jesty and Mrs. Rendall and her children, nothing like a case of vaccine inoculation is reported by any of Dr. Pearson's correspondents; and granting that these really were what they purport to be, they do not in the slightest degree affect Dr. Jenner's claims. They did not advance the knowledge or the practice of vacci-

<sup>\*</sup> See Mr. Bragge's letter to Sir William Elford, Bart. Evidence, page 160.

nation beyond what casual observation and popular rumour had rendered common in many districts: if, indeed, they ever took place (which I think more than doubtful), they were quite unknown to Dr. Jenner, and had it not been for his publication they never would have been drawn forth from their obscurity.

The documents presented by Dr. Pearson were evidently intended to prove that vaccine inoculation had been practised by others before Dr. Jenner. His second examination before the Committee had a different object. It went to show that, though Dr. Jenner promulgated the practice of vaccination, he really knew very little about the matter; that his opinions as to its origin were erroneous; and that it required the experiments and labours of other observers to correct his mistakes: and that he and Dr. Woodville had the chief merit in the establishment of the Vaccine Inoculation. Thus, after making due allowance for the claims of farmer Jesty and the valuable and scientific investigations of others, nothing was left to Jenner save that of being the publisher of a provincial rumour, the nature of which he himself did not fully understand! What must have been the feelings of those who could utter statements capable of leading to such inferences?

The disasters which occurred at Petworth, the Small-pox Hospital, Hanover, and many other places, (for they all directly or indirectly may be traced to the same source) bear testimony alike to the accuracy of those who made them and to the great modesty of their pretensions!

Mr. Keate, Surgeon-general to the Army, was the next gentleman whose evidence tended to call in question the full merit of Dr. Jenner. Mr. Keate admitted that he was the person who published the " cases of inoculation which gave rise to further investigation and improvement, but to whom to attribute the discovery I am unable to say." He delivered in to the Committee certain manuscripts of a Mr. Nash or Naish, a surgeon of Shaftesbury, which were supposed to prove that he had practised vaccine inoculation. They only show that he could not infect with variolous virus those who had casually been affected with cow-pox. His mind had certainly been directed to the subject, but it has been ascertained, beyond the possibility of doubt, that his cases of alleged vaccination were really cases of small-pox inoculation. The documents will be found in a letter from Dr. Pew to Mr. Creaser which is printed at the conclusion of Mr. Jenner's "Report of the Evidence."

Among the testimonials in favour of Vaccine Inoculation the Committee selected a few of those which had been sent from foreign countries. One was an address of the members composing the Jury of Health, and the Medical Committee of the Department of the Somme, to his Excellency the minister plenipotentiary of England at Amiens. Another was from the Central Committee of Vaccination at Paris,

signed by Portal, Halle, Sabatier, De Jussieu, Four-croy, Parmentier, Huzard, Corvisart, &c. &c. &c.

The certificates, likewise, granted by Admiral Lord Keith and General Lord Hutchinson to Drs. Marshall and Walker were among the documents selected by the committee of the House of Commons.

Dr. Jenner, who was examined on the first day, corroborated the evidence which he delivered in the form of a printed paper, by vouchers from correspondents in various parts of the world referring to, at least, 100,000 cases of successful vaccination.

The Committee, while referring to the pretensions advanced in opposition to Dr. Jenner's claims, took, on the whole, a just view of these pretensions; but they were not equally correct in estimating the real nature of his merits. They truly observed that in various parts of England an opinion was current. among the common people employed in dairies, that the cow-pox was a preventive of the small-pox. "It appears, they add, not improbable that in some very rare instances this knowledge was carried one step further, and that the cow-pox was communicated either by handling the teat or by inoculation from the animal, for the purpose, and with the intention of securing against the danger of small-pox: but the practice of which Dr. Jenner asserts himself to be the original inventor is the inoculation from one human being to another, &c. &c." With all deference to the Committee, it must be remarked

that this forms but a very small part of his claims to public gratitude and remuneration. His chief merits are, as has been already proved, of a very different description. They consist in the patient, laborious, and original investigations which enabled him to extract correct and scientific information from the most unpromising materials; to divest popular tradition of all its obscurity and uncertainty; and to elicit from vague and contradictory rumours the most accurate and valuable truths. It was not till all this was achieved that he ventured to perform his first inoculation: and, had it not been so, this most admirable and interesting experiment had been as valueless and inconsequential as the alleged vaccinations of Mrs. Rendall and Farmer Jesty.

When we duly consider the nature of the adverse testimony, it cannot fail to increase our admiration of Dr. Jenner's genius. The subject had been forced upon the attention of many professional gentlemen in different parts of England. It had been laid before some of the most eminent of the faculty in London, but no beneficial result followed.

Dr. Jenner's own endeavours to instigate his brethren were alike unsuccessful. His earnestness on this topic and the discouragements he met with prove at once his liberality and benevolence, and the constancy and perseverance of his nature. Let the reader recollect that the information communicated by him to Mr. Hunter was often mentioned by that enlightened physiologist both in public and

private. From this source Dr. Pearson himself acknowledges that he derived that information which, for nine successive years anterior to the publication of Dr. Jenner's work, enabled him to detail to his pupils in his lectures the opinions of the latter as to the prophylactic virtues of cow-pox, and his design of propagating that affection by inoculation with a view to the extinction of small-pox.\* Still further to prove how extensively Dr. Jenner's doctrines had been disseminated in London, I must repeat that they had been referred to by Dr. Adams in 1795, in his work on Morbid Poisons; and in the following year by Dr. Woodville in his History of Inoculation. It was, therefore, with a singularly bad grace that a physician, who was a public lecturer in London and who, for at least nine years, had been announcing to his pupils by far the most remarkable pathological fact that ever was observed, should, when the subject was divested of all its difficulties by Jenner and brought forward by him with all the modesty and simplicity that so peculiarly distinguished his character, have forgotten his former expressions of respect and admiration, and busied himself, with an activity and pertinacity that might have been useful in a better cause, to find occasion to rob Dr. Jenner of every title to distinction, whether as an original discoverer, or as an accurate observer.

<sup>\*</sup> See Dr. Pearson's Inquiry, page 8.

The Report of the Committee of the House of Commons was brought up the 2nd of June, 1802. An abstract of the proceedings which took place on that occasion is here subjoined.

Admiral Berkeley, chairman of the Committee, said that in their investigations the Committee did not confine themselves (as is usually the case) to the examination of petitioner's witnesses exclusively bnt their mode was "to sift out any case which could make against petitioner's evidence. This conduct, which certainly may appear to bear hard upon the petitioner, has proved a matter of fresh triumph to him, for although we descended to sift out information from every anonymous letter, though we raked the very kennels for information against this practice, all we were able to get is fully printed in the Report."—" Great as is that discovery (of the Longitude) I really cannot look upon it in any view to be compared with this of Dr. Jenner's, which is unquestionably the greatest discovery ever made for the preservation of the human species. It is proved that in these united kingdoms alone 45,000 persons die annually of the small-pox; but throughout the world what is it? Not a second is struck by the hand of time, but a victim is sacrificed at the altar of that most horrible of all disorders, the small pox, &c. &c. &c.

"I shall therefore move that a sum not less than 10,000l. be granted; but when I do this I declare I do not think it sufficient; if the House should think it

right to adopt any larger sum, I shall hold myself free to vote for it."

Sir Henry Mildmay did not think the sum proposed at all adequate. By keeping the discovery a secret Dr. Jenner might as readily have realized 100,000*l*. as any smaller sum. He concluded by moving as an amendment 20,000*l*.

Mr. Bankes, Corfe Castle, was for acting under a sense of paramount duty as guardians of the national purse, and that public economy was to be consulted. Dr. Jenner could have fully remunerated himself had he kept his own secret; and he could even yet be remunerated by his practice, without a parliamentary grant.

Mr. Windham urged as one great merit of Dr. Jenner that he did not keep his discovery a secret; had Dr. Jenner done so, Mr. Windham scarcely knew what sum the House might not be called on to grant for the purchase of such an invaluable discovery as that which went to the complete eradication of such a dreadful disorder as the smallpox. Dr. Jenner could now enjoy no benefit from monopoly, as he had enabled, most generously and humanely enabled, every medical man to apply his discovery in practice, for the public safety and for the preservation of lives incalculable. He wished a reward to Dr. Jenner if it were only to encourage others to divulge their discoveries for public advantage. The sum proposed for Dr. Jenner was the least possible.

Sir James Erskine Sinclair followed on the same side. He noticed the actual expense which Dr. Jenner had incurred in prosecuting his inquiries, at the least 6000l.; if then 20,000l. were objected as too large, he would propose 15,000l. as in some measure remunerating.

Mr. M. A. Taylor thought, as Dr. Jenner's expenses had not been stated in the Report of the Committee as a ground for the vote, that the Committee or its Chairman should be instructed to report progress.

Mr. Hobhouse said that Dr. Jenner's expenses might very fairly be adduced in argument; as the Committee had considered them in framing the report and resolutions thereon.

Mr. Fuller thought the larger sum (20,000*l*.) due to Dr. Jenner—more especially as he could look to no remuneration by patent.

The Chancellor of the Exchequer said that whatever sum of money the House might vote as a future reward for his merit he had already received the highest reward in the approbation, unanimous approbation, of the House of Commons—an approbation most richly deserved, since it was the result of "the greatest, or one of the most important discoveries to human society that was made since the creation of man." That the value of the discovery was without example, and beyond all calculation, were points not to be contested, for they were made out by convincing evidence; and that he (Dr. Jen-

ner) had precluded himself from great emoluments, by the generosity of his own conduct, was also most manifest: but he (the Chancellor) had also a duty to discharge towards the public in voting away the public money, and when he reflected on the other advantages that the Doctor must derive from this vote, he was for the smaller sum. In saying this he was rather pursuing the sense he had of his public duty, than his own feelings. He had, however, the satisfaction to reflect that this discussion had given to Dr. Jenner a reward that would last for ever, and also that the comfort of his family would be amply provided for in his extended practice, by means of the sanction of that House.

Mr. Grey said that, from the tenor of the Right Honourable Gentleman's speech, and from his owning the importance of the discovery, he hoped that he (the Chancellor) would have concluded by concurring with the amendment.

He had heard no good reason for limiting the sum to 10,000l. It ill became the House to diminish their reward, because Dr. Jenner's merit was of such a nature as to yield gratification to his own benevolent feelings. He therefore hoped that the House would vote for 20,000l.

Mr. Wilberforce stated that Dr. Jenner had been engaged in completing this discovery upwards of twenty years. He was not to be considered as an adventurer who might hope by it to push himself into practice. He had already attained to great

celebrity in his profession, and an extensive practice, which he had sacrificed to completing this discovery. In every view he thought the larger sum ought to be granted.

Mr. Courtenay said, it appeared in evidence that 40,000 men were annually preserved to the state by Dr. Jenner's discovery—by this number 200,000*l*. were annually brought into the Exchequer; and certainly Dr. Jenner, the efficient cause, was well entitled to 20,000*l*.

The question was then put that the words ten thousand pounds do stand part of the resolution; when the Committee divided,—

Ayes, 59. Noes, 56.—Majority, 3.

Thus we have seen in what manner the assembled representatives of our country, supported by the declaration of the king's minister in his place in parliament, rewarded the discovery of Jenner!

Before we pass altogether from this important incident in his life it may not be an uninteresting part of our general subject to advert to the annals of former ages, and learn from history what was their estimate of the services rendered to society by the great masters of the healing art.

Among the civilized nations of antiquity Greece surpassed all others in medical research and knowledge: and many of her schools, as those of Rhodes, Crotona, Cnidos, Cos, and Smyrna had obtained high reputation at an early period. Democedes rendered Crotona illustrious by his humanity, not

less than by his skill. He, whilst a captive to the Persians, restored to health Darius their king, who repaid the benefit with great wealth and honours. But the reward of Democedes stopped not here. He asked and obtained from the haughty and enraged monarch pardon and freedom for some Egyptian physicians who had unskilfully treated the disease of Darius in its commencement, for which error they had been condemned to death. See Herodotus L 3. c. 129.

But the brilliant fortune of the Coan school outshone that of all the rest, by producing the Father of Medicine, the great Hippocrates-not only did his fellow-citizens of Cos impress their money with his likeness, but all Greece joined in this tribute to his merits—Greece, then the most enlightened region in the world, "quæ communi consilio, quod venientem ab Illyriis pestilentiam prædixerat, discipulosque ad auxiliandum circa urbes dimiserat, honores illi, quos Herculi, decrevit."\* The Athenians also enrolled him as a citizen, presented him with a golden crown, and granted to him and his posterity a public maintenance † την εν ωρυτανείω σίτησιν έδοσαν. This last was considered by far the highest honour that could be bestowed on any human being by the Athenians. He was received by the Thessalians and Argives with similar marks of profound respect. Honours the most splendid were accumu-

<sup>\*</sup> Plin. Nat. Hist. L. 7. c. 37. + Soran. in Vit. Hippocr.

lated on him by the Coans, more especially because by his influence, and by his procuring an alliance with the people of Thessaly, he warded off from his own country a war which the Athenians were preparing to wage against Cos. The fame of Hippocrates and the prodigal offers of riches and of honours were not confined to Greece:—his high character for skill and science had reached "the king of kings" the mighty Artaxerxes, in whose immense army a pestilential disease had broken out. The Persian monarch was informed by Pætus that Hippocrates was the first of physicians, the father of health, the preserver, the reliever from pains and diseases, the leader of the heaven-born science.

Forthwith Artaxerxes orders Hystanes, his prefect of the Hellespont, to offer to Hippocrates as much gold as he might desire; and that he should rank with the first nobility of Persia. Hystanes sends this message of the king to Hippocrates, who immediately replies: "In answer to the letter you sent me as coming from the king, write back to him immediately, that whatever we require for food, for vesture, for dwelling, and all the necessaries of life, we have in abundance;—but to accept of the wealth of the Persians would not be just in me,—nor yet to set free from their diseases barbarians who seek to lord it over the Grecians." Hippocrates himself thus wrote to Demetrius: "The king of the Persians has sent for us to him, not knowing the 'word

of wisdom' has more power with me than that of gold."

To the physicians of the school of Smyrna, especially to Erasistratus, honours scarcely inferior were paid than to the most dignified magistrates. Their effigies were stamped on the public money, and their names were inscribed on these coins and medals, in common with the images of such of the divinities as presided over health. Thus, on one side of the coin or medal was impressed the figure of the deity, as of Hygeia, on the other the effigies of Æsculapius, with the insignia of the medical art.——

No sooner was the amount of the parliamentary grant announced than every unprejudiced mind that had attended to the claims of Dr. Jenner felt its extreme inadequacy. In the early part of the preceding century the House of Commons had voted a much larger sum for importing a silk-throwsting machine from Italy: and the liberality of their grants on other occasions proved that they did not estimate Dr. Jenner's services by a money-price.

It gives me pleasure in regard to this point to mention the conduct of a physician of distinguished genius and learning, whose early opinions were unfriendly to vaccination. The late Dr. Beddoes, on the 4th of June, 1802, (only two days after the debate) wrote a letter to the editors of the Medical and Physical Journal, which contained the following expression: "With as high a sense of what mankind owe to Dr. Jenner as has been expressed by any of

your correspondents, I cannot but be deeply mortified at the smallness of the parliamentary reward which he is likely to receive. The largest?sum now proposed must, I think, be felt as very inadequate, and without a national subscription the communication of discoveries of immediate and general utility will be checked." "I hope to see by the newspapers, or your next number, that many others feel as I do. If professional men exert themselves they will find abundance of families who have received, or hope to receive, benefit from Dr. Jenner's labours, ready to help towards advancing his fortune; and he surely will not blush to receive such proofs of their sense of obligation. Probably those very members of Parliament who, from a sense of duty, showed themselves most sparing of the public purse, will be among the most forward to open their own."

The same subject was taken up in the subsequent number of the same journal, by Dr. Langslow of Suffolk. He asks "what is the amount of such a sum (10,000l.) when divided amongst the individuals of the populous Islands of Great Britain and Ireland, at this time, perhaps, amounting to fourteen millions? A very little calculation will inform us that this sum is no greater than amounts to the demand of one penny each. And let it be observed and remembered that every one of these individuals, without any exception, is nearly and dearly interested in this discovery. I cannot, therefore, but suppose that the motion for the vote of 10,000l. was

carried without properly adverting to the value of the discovery, or the merits of the discoverer, whose candour, ingenuousness, and humanity must ever reflect the greatest honour on our nation."

Sir Gilbert Blane felt so strongly on the subject that he drew up an address, intended for circulation, of which the following is an abstract.

" Public demonstrations of gratitude towards the benefactors of mankind have ever been deemed just and politic. Our legislature has frequently acted on this view by rewarding individuals for eminent services to the state. National bounty was never extended on fairer grounds to any individual than in the case of the author of Vaccine Inoculation. It is, however, the universal voice of this as well as other nations that the remuneration given to Dr. Jenner is greatly inadequate to his deserts, and to the magnitude of the benefit his discovery has conferred on mankind: yet no blame can, on this score, be fairly imputed to our country or its representatives. The decision for the smaller sum was carried by a very small majority (of three), and even that majority was casual, and depended on circumstances always incidental to a popular assembly, such as the absence of members at the moment of division of the house, &c. &c.

"When, however, public opinion on this topic, both at home and abroad, is considered; as well as the great saving of human life throughout the world, which may, in a degree, be estimated by the former 516

loss of life in this metropolis alone as arising from small-pox; 2500 persons, at least, falling victims to it annually; and throughout Great Britain and Ireland not less than 45,000; with a like proportion in most other countries in the world, even under the mitigation of that disease by means of inoculation: this practice, though a benefit to the limited number of the community who submit to it, or can avail themselves of it, has been injurious to society at large, by spreading the contagion far and wide, and thereby increasing the absolute mortality of that most pestilential and fatal disease. When in contrast with this dreadful yet true view of the existing state of small-pox it is considered that Vaccine Inoculation produces a very mild affection, unattended with any danger, and a preventive morally certain for each individual undergoing its salutary influence; but above all, that by means of it, when rendered universal, small-pox will be altogether annihilated: when, I say, all these points are fairly and fully considered and taken into account, the general voice respecting the inadequacy of the remuneration as yet bestowed on Dr. Jenner will be completely borne out: and but one universal wish prevail throughout the world that an additional and permanent testimony of public gratitude and justice should be given by the great community of mankind; a testimony which, whilst it shall convey a becoming and well-merited reward to the author, will at the same time tend to increase the utility of this great discovery by diffusing the know-ledge of its high value, and thereby recommending it to universal practice; and thus hasten the consummation of its benefits to the human race, namely, the extinction of small-pox. It is, therefore, proposed that a general subscription should be opened in this and other countries, with a view to confer a substantial and perpetual boon on Dr. Jenner and his family.

"It is proposed that the sum so raised shall be placed in a fund, to be vested in trustees; and that the interest thereof should belong, as a perpetual annuity, to Dr. Jenner and his successive representatives bearing his name."

It is gratifying to observe the coincidence of feeling on this subject, among the liberal and eminent of his own profession. Dr. Lettsom, of London, (soon after the vote of the House of Commons for 10,000l. as a national remuneration for the discovery and promulgation of the vaccine inoculation), wrote to Dr. Jenner in this animated strain, "I was truly chagrined on seeing the niggardly reward voted by the House; and had double that sum been asked, it would have been granted: however, as an individual, I am not disposed to stop here; but immediately to set on foot a subscription that should invite every potentate and person in Europe, America, and Asia, because every avenue of the globe has received, or may receive, your lifepreserving discovery. This subscription should not

be for you, but it should be a fund the interest of which should be for ever devoted to the name of Jenner."

These liberal sentiments were generally shared by almost every respectable professional man in the kingdom; and at a future time they were adopted by the nation at large through the medium of their representatives. Dr. Pearson alone, I believe, opposed the general feeling, and by placing himself on this "bad eminence" he has compelled me to advert again to his proceedings. On the fourth of July he sent a letter to the editor of the Medical and Physical Journal complaining of the conduct of the Committee of the House of Commons; and at a subsequent period he enlarged the statement of his grievances into a work purporting to be an Examination of the Report of the Committee, &c.

When he wrote this work he seems to have relied more on the forbearance of the House than on the justice of his cause. It is now quite unnecessary to examine this publication at length. The universal voice of the civilized world has alike vindicated the conduct of the Committee and the reputation of Jenner. Some of his friends thought that he might reply to Dr. Pearson's "invidious attack;" but he declined, observing that "as he had never thought it worth his while to notice any of Dr. Pearson's former remarks, he should now pursue the same line of conduct and treat his present publication with silent contempt." Two gentlemen, however,

felt themselves called upon to expose the fallacies of Dr. Pearson. Mr. Hicks of Eastington, and Mr. Creaser of Bath, each published observations on his "Examination" of the Report of the Committee. The friends of Jenner, and of truth, must indulge the hope that the refutation then given to statements evidently written under feelings which, I trust, have passed away, has carried the same conviction to Dr. Pearson's mind as it has done to others.

From the time of Dr. Jenner's arrival in Bond-Street, on the ninth of December 1801, to the conclusion of the Parliamentary Inquiry his time was much occupied in collecting information and arranging facts for that interesting investigation. When he himself was examined before the Committee of the House his simple and unadorned narrative, and the evidence by which it was supported, gave so much satisfaction that they wished not to call any more of the faculty. "I could have given," he says in communicating this incident to a friend, "fifty times as much as they have gotten. One gentleman gave in upwards of 10,000 cases of successful inoculation."

As the petition to the House of Commons did not specifically mention the expenditure and losses that he had incurred in establishing the practice of vaccination, he was therefore called upon to make them known to the Committee. He stated that the prosecution of the inquiry had led him into a train of inevitable expense, the greater part of which had arisen from having been under the necessity of living much in London. "Since I first made my discovery public I was compelled to adopt this measure from observing the confusion that was arising among practitioners in the metropolis, in some measure from a misrepresentation of my facts by some, and a too careless observance of them by others. Foreign nations, too, were sending deputies to inquire into the new practice, and as my aim was to diffuse the knowledge of it as widely as possible, and as expeditiously, this work I was confident could not go on so well by correspondence only, as by a constant personal intercourse. My receipts arising from the practice have gone but a little way in reimbursing me. My private affairs, as my time was so incessantly occupied in establishing the new practice, have of course experienced that derangement which neglect always brings on. This exposed me to a serious evil; and I never could have persevered, to the obvious injury of my family, had I not been buoyed up by a confidence in the generosity of my country." He then goes on to state that by leaving his place of residence in the country where he had been established many years in a pleasant and lucrative profession, which after so long an absence it was not probable he could ever regain, he sustained another serious evil. The minor expenses, such as postage, &c. &c. he forbore to mention.

After the Committee had finished its labours he expressed his sentiments to the following purport. He returned thanks for the candour and patience with which the inquiry had been conducted. He remarked that gentlemen of the highest rank and talent in the medical profession had proved that the most loathsome pestilence which ever afflicted human nature might not only be stayed, but finally extirpated; and that the feeble efforts which ignorance or evil passions may have made to counteract the force of such evidence never could produce any permanent effect on the minds of those capable of appreciating it.

The result of the Parliamentary inquiry, and the rapid diffusion of the practice of vaccination, excited a strong desire in the public mind to know more of the character of the author. A short account of his life was given in the "Public Characters" of this year.

A confirmation of his opinion respecting the origin of the cow-pox was about this period made known by Dr. Loy, of Whitby, in Yorkshire. The experiments of this gentleman were quite conclusive. Dr. Jenner sent a copy of his pamphlet to his Royal Highness the Duke of Clarence, on which occasion he expressed himself as follows:—

"In obedience to the wish your Royal Highness expressed to me at Lord Grantley's, I have done myself the honour of sending you Dr. Loy's pamphlet on the Origin

of the Cow-pox, which decisively proves my early assertions upon that subject. This discovery is the more curious and interesting as it places in a new point of view the traditionary account handed down to us by the Arabian physicians that the small-pox was originally derived from the camel. The whole opens to the physiologist a new field of inquiry, and I sincerely hope it may be so cultivated that human nature may reap from it the most essential benefit."

"The ardour your Royal Highness has shown in the Vaccine cause, and the personal favour with which you have honoured me, will ever be most gratefully remembered by

"Your Royal Highness's
"most humble and devoted servant,
E. JENNER."

A confirmation of Dr. Loy's printed work will be found in one of his letters to Dr. Jenner.

## DR. LOY TO DR. JENNER.

SIR,

I have not yet had an opportunity of making any further experiments respecting the origin of the cow-pox, on account of the disease of grease having been of late remarkably rare in this country. From the evidence, however, I have had of the truth of your opinion, and from some observations which have been made on my experiments by my worthy preceptor Dr. Duncan, of Edinburgh, I consider myself in some degree called upon to pay more attention to this curious subject, and you may, Sir, be assured that you shall be informed of my success.

I have the satisfaction to mention that the subject inoculated with the grease matter on Experiment VI. has withstood the action of the small-pox, by way of repeated exposure to the natural disease. Several of those also who were inoculated with Vaccine virus, generated by inoculation with the equine, have been exposed more than once to the natural infection of the small-pox, but without the least effect. Dr. Duncan seems to conjecture that the persons on whom the experiments were performed might have previously had the small-pox; but any foundation for such a supposition is perfectly groundless. Most of the persons who were subjected to the experiments had never been within several miles of the small-pox till inoculated. And that the small-pox matter I made use of was good is proved by the same virus giving readily the disease to others.

There is not the least doubt but the experiments will remain successful; and that they were fairly performed many respectable gentlemen in this neighbourhood can testify. One gentleman at my request saw me inoculate one of his cows from the greased heels of his horse, with a lancet with which he himself supplied me at the time of experiment. This trial was successful.

I apprehend that Dr. Pearson's inveteracy will have little effect upon a man who, from the good he has rendered his fellow-creatures, has established his fame over all Europe.

I cannot, Sir, sufficiently express the obligations I am under for the notice you have bestowed on me; accept, however, through this medium the blessings of hundreds in this country for the favours you have conferred on them and their latest posterity.

Give me, Sir, the honour to subscribe myself
Your faithful friend and servant,
JOHN GLOVER LOY.

Whithy, December 26th, 1802.

After so many letters of a professional nature, it may be a matter of curiosity to peruse one written by a worthy Norwegian merchant, who had heard of the virtues of the Variolæ Vaccinæ.

MR. ISAACH ISAACHSON TO MESSRS. WOLFFS AND DORVILLE, LONDON.

Christiansand, 11th May, 1802.

(DUPLICATE.)

The purport of the present is to desire you would be so obliging as to procure from the famous Dr. Jenner some matter of vaccination for the inoculation of the cow-pox, so much in fame all over Europe. I could wish it to be sent by the post as soon as possible, and in the best preserved state. For the sake of a speedy conveyance, a small portion might also be sent by the post to Stockton, where a vessel with timber is going, and might take it home. If there exists any printed direction for the using of it, it might also be sent to Stockton, apprehending its weight too bulky to be sent by the post of the continent. You might address the parcel to Mr. Hutchinson of said place, desiring him to forward it with all possible haste and care. Please debtor my account for the amount, and excuse the trouble given by

Your obedient humble servant, ISAACH ISAACHSON.

Almost every post brought the gratifying intelligence of a wider and wider range to the Vaccine practice. It had already been established in every country in Europe; but though at the period we are now treating of it had passed into Asia, and

reached our possessions in India, the knowledge of this fact had not yet been communicated to Dr. Jenner; however, the tidings from Germany and the entire of the north of Europe, as well as from France, from Spain, and Italy, were of the most cheering aud animating nature. From Dr. Struve, of Gorlitz in Saxony, he received a letter dated April 16th, 1802, mentioning that the practice had been introduced into that country in January 1801. The writer then proceeds thus: "Great and honoured Sir—The practice of Vaccine Inoculation, your discovery, is highly esteemed and cultivated by the Germans, insomuch that not a single town or village can be found in which one or more persons have not been shielded by the Jennerian Ægis from the contagion of small-pox."

In a postscript Dr. Struve mentions an instance of a woman eighty-two years of age, then living, who caught the cow-pox by milking cows, in Moravia, seventy-two years before. She had since that time lived in the same apartment with her brothers when labouring under the small-pox; and nursed her son when dreadfully afflicted with that disease; yet totally escaped infection.

By an ordinance of the Austrian Government dated at Vienna, March 1802, a public and authoritative recommendation was given to vaccination. The prejudices which had at first opposed it were thus effectually overthrown, and a series of regulations were established, which soon rendered it ge-

neral in Vienna; and in no long time small-pox was almost banished from that capital.

Before these regulations were enacted, a number of inoculations with vaccine matter had been performed publicly under the direction of M. De Franck, ancient counsellor, in presence of Count De Küfstein and a great number of physicians.

A copy of these regulations, together with the continuation of his Latin translation of Dr. Jenner's work, was transmitted by Dr. Careno, of Vienna, to Dr. Jenner, through the hands of the Baron Landolina, an accomplished Sicilian nobleman.

The intelligence from Spain was of a much more encouraging description than could have been anticipated from the state of that country. Dr. Vivas of Valencia, and Dr. Nadal of Merida, particularly interested themselves in the diffusion of the practice, and in obviating the prejudices existing against it. The former wrote a short dialogue in Spanish with that intention, a copy of which, with a long letter in Latin, dated on the 27th of May, 1802, he sent to Dr. Jenner.

In Paris the greatest enthusiasm continued to prevail. Mr. George Jenner was in that capital in June. He dined with the Vaccine Committee in company with Dr. Marshall. Jenner's portrait, a print by Smith, was hung up in the room crowned with a chaplet of flowers, and this motto attached to it, "Viro de matribus, de pueris, de populis bene merito."

A feast of the same kind was celebrated at Breslau on the anniversary of the first vaccination in Silesia. It was attended by several persons of rank, and by the physicians and surgeons who were associated for the propagation of the discovery. The same engraved portrait was hung up in the room, and decorated with flowers and wreaths and emblematical figures, with the motto "Huic Vota." After dinner a chorus was sung, composed by a celebrated German poet, Professor Fülliborn. A copy of this print by Smith was afterwards engraved by a German artist at Vienna.

Shortly afterwards the Central Committee of Paris sent to Dr. Jenner a most gratifying account of their proceedings.

Paris, ce 29 Juillet, 1802.

LE COMITÉ CENTRAL DE VACCINE, AU DOCTEUR EDW. JENNER.

Monsieur et très honoré confrère,

Les C<sup>yens</sup>. Huzard et Parmentier, membres de l'Institut National de France, veulent bien se charger de vous porter les temoinages d'estime et de consideration, dont tous les membres du Comité sont pénétrés pour votre zêle et votre génie observateur. Ils doivent vous instruire des efforts constants qui ont soutenu le Comité depuis l'époque à laquelle la découverte, dont vous avez enrichi le monde, a été connue en France. Ils vous diront que des succès constants ont couronné nos travaux, et que le comité a fait pénétrer dans toute la France les bienfaits de la Vaccine.

Aujourdhui, Monsieur, les rapports de tous les médecins Français sont unanimes; partout les épidémies varioleuses respectent les vaccinés, et il n'est presque plus de village en France qui ne bénisse l'ingenieux inventeur de la nouvelle inoculation.

Dejà votre gouvernement a acquitté en partie la dette de l'humanité: si les felicitations sincères des membres du Comité Central de Vaccine peuvent ajouter à la jouissance qu'a du vous faire éprouver la justice du parlement Britannique; croiez, Monsieur, qu'il ne vous reste à cet égard aucun vœu à former.

Le Cyen. Huzard, notre plus célèbre artiste veterinaire, se propose vous entretenir sur l'origine du Cow-Pox. Le Comité qui a tenté avec lui l'inoculation des eaux aux jambes sur des vaches, n'a pas obtenu les mêmes resultats que vous. Nous esperons que vous voudrez bien donner à notre compatriote tous les renseignemens possibles. Il nous a promis de nous en rendre un compte fidèle. Nous ajoutons beaucoup d'importance à recevoir sur cet objet les connoissances qui nous manquent très probablement: l'humanité vous doit la première observation de l'effet preservatif; la science vous devra des notions précises sur l'origine encore incertaine du bien que vous avez fait à tous les peuples.

Recevez, Monsieur, l'assurance de notre parfaite estime, et de notre consideration distinguée.

Au Nom du Comité,

THOURET,

Directeur de l'Ecole de Medecine, President.

Husson, Secretaire. M. Husson, the secretary, also wrote a private letter to Dr. Jenner in the following terms:—

"I hope to have the honour of a personal interview with you before the expiration of this present year, 1802. My object in going to reside some weeks in London is to see the celebrated man to whom the world will be indebted for the extirpation of a disease which has long dispeopled it. On my return to France, I shall be infinitely delighted in having to congratulate myself that I have had some acquaintance with you.

Sir,
Be assured of the admiration with which
I have the honour to be, &c. &c.,
Husson."

Dr. Sacco continued to labour with unwearied activity. In a letter written to Dr. Jenner he mentions that more than sixty thousand vaccinations had taken place in the Italian Republic; and one third of these had been performed by himself. He states that he was much impeded in his proceedings by sinister rumours of various kinds: among others it was affirmed that vaccination had been abandoned in England, and that it had been forbidden by the Government! With this letter were sent some medals struck to commemorate the introduction of the vaccine practice into the Italian Republic.

Nor was Dr. De Carro less active; he sent vaccine matter to Rome at the request of Cardinal Gonsalvi. That prelate was very anxious to introduce the

practice into the Roman states, but it was much opposed by a "faction" of physicians.

Having taken a rapid view of Dr. Jenner's intercourse with the continent of Europe on the subject of vaccination, we must now turn our attention to other parts of the world. The intelligence from North America, as well as from Newfoundland and our West-Indian possessions, was of the most gratifying nature. The exertions of the President of the United States, Mr. Jefferson, have already been mentioned. To show how minutely and carefully he studied the progress and varieties of the cow-pox I insert an extract from a letter of his addressed to Dr. Waterhouse.

## Washington, Jan. 14th, 1802.

"I have waited till I could inform you that some variolous, after vaccine, inoculations have proved that I had preserved the matter of the kine-pox in its genuine form. Dr. Coxe, of Philadelphia, has ascertained this, having received his matter from hence. To this is added your information that the matter I sent you produced the genuine disease, and consequently those in Virginia who received the matter from me are in security.

"Knowing how little capable the people in general are of judging between genuine and spurious matter from their appearance, or that of the sore, I endeavoured in the course of my inoculations at Monticello to find some other criterion for their guide. With this view, I was very attentive to discover whether there be not a point of time, counting from vaccination, when the matter is genuine in all cases: I thought the eight times twenty-four hours furnished such a point; I governed myself by it, and it has been

followed here successfully by Dr. Gaut; but your experience, so much greater, can inform us whether this rule is a sure one, or whether any other point of time would be still more certain. To the eye of experience this is not necessary; but for popular use it would be all-important: for otherwise the disease degenerates as soon as it gets into their hands, and may produce a fatal security. I think some popular criterion necessary to crown this valuable discovery."

In allusion to the President's remarks Dr. Waterhouse observes, "In answer I quoted your opinion, and finally fixed the point of time with the president at "EIGHT TIMES TWENTY FOUR HOURS;" so it has gone forth as by an edict. I wish you had been one of the deliberative council. Adieu! B.W."

Not many months after the foregoing remarks were written Dr. Jenner had the satisfaction of receiving a letter from the gentleman who now fills the distinguished situation then held by Mr. Jefferson, announcing his election as a member of the American Academy of Arts and Sciences.\*

This diploma was signed by John Adams, who was at that time President of the United States, as well of this society.

While writing these remarks, I cannot avoid noticing here that intelligence has just arrived from America announcing the death of that venerable Statesman and Philosopher. This event has been rendered the more remarkable by the coincidence of the decease on the same day, and almost at the same hour, of another distinguished individual Thomas Jefferson, who succeeded Mr. Adams in the direction of the Government of the United States of America.

JOHN QUINCY ADAMS TO DR. JENNER.

Boston, 13th July, 1802.

SIR,

I have the honour of enclosing herewith a certificate of your election, by an unanimous vote, as a member of the American Academy of Arts and Sciences. And, in transmitting this testimonial of respect from my countrymen, I am sure of expressing their sentiments when I add that never since the institution of this society have its members enjoyed a more genuine and universal satisfaction, by the accession of a new associate, than when they acquired the privilege of reckoning among their numbers the name of Dr. Jenner.

I am very respectfully, Sir,
Your very humble and obedient Servant,
JOHN QUINCY ADAMS,
Corresponding Secretary to the
American Academy of Arts and Sciences.

The success of the vaccine practice in Newfoundland will be learned from the following letter:—

THE REV. J. CLINCH TO DR. JENNER.

MY DEAR FRIEND,

I will hasten to tell you the general result of my practice in the vaccine disease in the Island of Newfoundland. I informed you in a former letter that the matter sent me by your nephew produced the effect completely, although from the date it was kept four months.

I began by inoculating my own children, and went on with this salutary work till I had inoculated seven hundred persons of all ages and descriptions. Many opportunities soon offered at St. John's (where the small-pox was making great ravages) which afforded convincing proofs of the safety of the practice, to the inhabitants and servants in Trinity Bay. They saw (at first with astonishment) that those who had gone through the Jennerian inoculation were inoculated with the small-pox, and exposed to the infection without the least inconvenience, and I hope it will every day become more and more extensive; as nothing can be more certain than that it will annihilate the worst and most dreadful of all disorders, the small-pox.

Poole, 25th Jan. 1802.

Dr. Jenner sent out vaccine matter to Barbadoes in 1801 by Mr. Holder. This gentleman inoculated several sailors with it on the voyage, so that he was enabled to make use of recent virus on his arrival. The success was complete; and the inhabitants received the preservative with much thankfulness.

This year, as well as the preceding, the resources of chemistry were applied to ascertain the qualities of the vaccine lymph. Messrs. Dupuytren and Husson published their researches in Paris; and M. Hunold of Hesse-Cassel gave an account of a similar investigation, in his Annals.

About this time Dr. Jenner received from Mr. Bryce of Edinburgh, a copy of that gentleman's treatise on cow-pox, accompanied with a very polite

letter, in which he very modestly says, that he had added only "some new hints" on the subject.

## MR. BRYCE TO DR. JENNER.

SIR,

I presume to address you on the present occasion because I think it may be pleasant for you to learn that your favourite subject the inoculation of cow-pox, for which society must ever be indebted to you, has not been altogether neglected in this corner of the world.

Convinced as I am of the power of the cow-pox in shielding the human constitution from the attacks of small-pox, and being placed some time ago in a situation favourable for making observations on that interesting subject, I did not fail in marking down whatever occurrences appeared to me worthy of notice, and these I have now presumed to publish.

I have taken the liberty of desiring Messrs. Cadell and Davies, booksellers, to forward you a copy of this my publication.

You will no doubt, Sir, find a great deal of your own labours scattered throughout this essay; for your investigations on the subject have been so full and so satisfactory that it is impossible to say much on the subject without interfering with you. I trust, however, you will also find some new hints, which your ingenuity may improve farther than I have yet been able to do.

It would afford me much pleasure, Sir, if you will favour me with your sentiments on the two most prominent features of my publication; namely, the new mode proposed for obtaining and preserving the virus of cow-pox, and the proposed test of a constitutional affection. Should

any objections occur to you on these points, which I have not foreseen, I trust that you will have the goodness to mention them freely; for this appears to me to be the only way by which we can arrive at truth in our investigations.

It affords me much pleasure, Sir, to observe that you are likely to reap some fruits from your labours. And while a grateful nation bestows a worldly remuneration to her benefactor, it shall be my care to——(The remainder of this letter is wanting.)

Of the "two most prominent features," as Mr. Bryce in his Essay terms them, the opinion of Dr. Jenner will be best learned from a perusal of extracts from his replies to Mr. Bryce's communications.

DR. JENNER TO MR. BRYCE, EDINBURGH.

DEAR SIR,

Before I enter on the subject of your present letter allow me to return you my most sincere thanks for your former one, and for your valuable publication on the cowpox. Although you have found me so tardy in my acknowledgements, yet be assured the very handsome manner in which you mention my name in that work has not passed away without exciting in me a grateful remembrance of your own. You have anticipated some few observations that I had noted down for my next number.

You may easily conceive how incessantly I am toiling if you consider the immense extent of the correspondence that must necessarily fall upon me; and let this consideration make some allowance for my apparent neglect of your

letter. I can with truth assure you that I have made efforts to answer it, fifty times since it has been in my possession.

\* \* \* \* \*

Again, he writes thus to Mr. Bryce—April 5th, 1803.

"It afforded me great pleasure to find that the Vaccine virus I sent you put an end to all your solicitudes respecting the perfection of that you had been previously using, and that you have diffused it so widely through the towns and villages of Scotland.

"I doubt not that you will with much ease establish an institution for inoculation, on a plan equally useful with ours in London. I should send our plan, but it is not yet in print.

"I much admire your precaution in using a test of the certainty of infection; and your ingenuity in the manner in which you employ it. To all young vaccinators it cannot be too strongly enjoined. The experienced will determine from the character of the pustule. The evidence before the House of Commons evinces the propriety of your observations.

"I put your crust into the hands of my friend Ring, and he informed me yesterday that it had produced a good pustule. Experience now tells us that this is a good mode of sending the Vaccine virus to distant parts."

Among the many marks of public approbation and respect which were presented to Dr. Jenner at this period of his philanthropic career, none afforded him higher gratification than those offered to his fame by his professional brethren; inasmuch as these were the best testimonials of this merit as a discoverer, and of the greatness and universal advantage of the discovery itself.

He was in the early part of this year (1802) addressed on that subject in the warmest terms of congratulation and approval by the Medical Society of London, of which he had long been a member. At a full meeting held on the 29th of March it was unanimously resolved "That taking into consideration the important discovery of Dr. Jenner, the members of this society are of opinion that great benefit will accrue to the inhabitants of these islands, and to mankind in general, from the introduction of Vaccine Inoculation; and from their own experience, as well as from the extensive trials made in various parts of the world, that it will, in all probability, ultimately eradicate the small-pox, one of the most fatal diseases to which the human species is liable.

"Resolved, That a copy of this Resolution, signed by the President, be presented to Dr. Jenner."

The Suffolk Society of Surgeons on the 19th of April, after congratulating him on his great and happy discovery, and returning him their "grateful thanks for the invaluable advantages that the community at large had derived from his labours," entered into similar resolutions: as did also the Benevolent Medical Society of Essex and Herts, at their annual district meeting held at Hatfield, May the 3d, 1802.

But the proceedings of this kind which were calculated to convey to the heart and mind of Jenner, at this time, the greatest satisfaction, were those of the Physical Society of London, which holds its meetings at Guy's Hospital, Southwark.

At one of these meetings, unusually full, a memoir on the subject of Vaccine Inoculation underwent long, serious, and ample discussion. Dr. Jenner himself attended on four successive nights, having received an express invitation and request from the Society for that purpose.

On entering the theatre he was constantly received with universal and rapturous applause; and as no discussion was ever of greater importance or of deeper interest, none, probably, ever attracted in a higher degree the attention of professional and scientific men. At the conclusion of this animated debate, the Society expressed to Dr. Jenner their deep sense of the value of his discovery, "their opinion of its efficacy, and their profound veneration for its author." After professing their conviction of the prophylactic powers of vaccination, and that it is quite free from any such effects as that of "calling forth those latent seeds of disease, which occasionally arise after the small-pox, even under the best management," the Society thus expresses the sentiments of its members,- "We feel the warmest sensations of gratitude and respect for the liberal manner in which the author has communicated his discovery, uninfluenced by any motive of self-consideration; and we contemplate the discovery itself as a memorable epoch in the annals of medicine. The Society presumes to hope that the author of this happy discovery will meet with that reward from his grateful country which he justly deserves for having thus rendered himself the benefactor of mankind."

A new order of merit was instituted on this occasion, the members of which are called honorary associates. This distinction is to be conferred solely on the authors of some remarkable discovery in medicine.

The President, after an eloquent oration, presented to Doctor Jenner the subjoined Diploma.\*

In addition to the honours already mentioned as having been conferred on Dr. Jenner about this period, he was elected a corresponding associate of the Medical Society of Tours; and also of the Medical Society of Paris.

\* "Societas Physica, anno 1771 constituta, et in Nosocomio Thomæ Guy habita, omnibus ad quos hæ pervenerint literæ salutem. Cum meritissimus ornatissimusque vir Edvardus Jenner, M.D. R. S. S. &c. non modo ingenii acumine, felici artis medicæ cultura, animoque ad optimum quodque parato, jamdudum inclaruerit, sed etiam Variolæ Vaccinæ Institutione in lucem prolata stragem hominum variolarum morbo antehac illatam compescuerit, imo ferè penitus in futurum represserit, sicque dirum illud mortis telum obtundendo de genere humano optimè meruerit; notum facimus nos præfatum virum primum inter socios maximè honorandos ascivisse et retulisse. In cujus rei fidem has literas, meritissimis tantum concessas, manibus nostris signatas, expediri lubentissimè jussimus."

Although many of the clergy on the Continent had availed themselves of the opportunity which their sacred function affords to promote the practice of vaccination by addressing their congregations on the subject, the example was not followed in England. In the commencement of this year, however, one worthy clergyman, the Rev. Dr. Booker of Dudley, broke through the silence, and made an honest and energetic appeal to the good sense and good feeling of his hearers. He published his discourse (addressed chiefly to parents) on the duties and advantages of inoculating children with the cowpox. Dr. Jenner was very much gratified with this publication. In writing to the author he observed, "You are not only entitled to my thanks and praises, but to those of the whole Island, and I heartily wish so good an example may be followed. As it has pleased Providence in his mercy to impart to us the means of annihilating a most afflictive malady, every effort should be made to counteract those prejudices which stick so firmly to the poor and uninformed. As far as I know, you are the first clergyman who has addressed his congregation on this subject. On the Continent, particularly in Germany and Switzerland, it has long occupied the attention of the pastors of the church; and their discourses have been attended with consequences the most beneficial. Many have done much good here by taking up the practice, and inoculating the poor around them. I shall lay before you a passage in a letter just received from the Rev. Mr. Finch, St. Helen's, Lancashire." 'A few years ago I was in the habit of burying two or three children every evening in the spring and autumnal seasons, who had died in small-pox; but now this disease has entirely ceased to call a single victim to the grave. Why? I have inoculated for the cow-pox upwards of 3,000 persons; and the small-pox is no longer in existence here.'

The idea of connecting religious services with the practice of vaccination had occurred to several individuals in this country as well as on the continent. The late eminent Dr. Darwin, of Derby, wrote to Dr. Jenner on the 24th Feb., 1802, "Your discovery of preventing the dreadful havoc made among mankind by the small-pox, by introducing into the system so mild a disease as the vaccine inoculation produces, may in time eradicate the small-pox from all civilized countries, and this especially: as by the testimony of innumerable instances the vaccine disease is so favourable to young children, that in a little time it may occur that the christening and vaccination of children may always be performed on the same day."

It is pleasing to find that Dr. Jenner, amid the momentous and engrossing occupations in which we have seen him engaged, should preserve both the playfulness of his character, and that delightful simplicity by which he was so much distinguished. The following dialogue written about the time that

he was most exposed to the vexatious opposition directed against him before the Committee of the House of Commons, indicates very strongly these qualities.

## DIALOGUE BETWEEN E. J. AND HIS SERVANT RICHARD.

- R. A servant, Sir, has call'd just now,
  And left a very handsome cow.
  'Twas brought, he told me—let me see—
  From some such place as Hitaly.
  Well have I look'd her o'er and o'er,
  And never saw her like before.
  In no one point, Sir, does she fail,
  Head, horn, neck, carcase, limbs or tail;
  And here she is to take her station
  In compliment to Vaccination.
  - J. Well, Richard, this is very good,
    But how shall we contrive her food?
    Instead of town, were we at home,
    Among our meadows she might roam;
    But here I've not one inch of pasture—
- R. Oh, Sir, don't vex; that's no disaster,
  The cow is only Paris Plaster!

Bond-Street, 1802.

## CHAPTER XIII.

ADVERSE CLAIMS-FRENCH AND HINDOQ.

As it has been necessary in the preceding chapter to treat of some of the claims which have been urged in opposition to those of Dr. Jenner, I consider this a fit opportunity to bring together such other attempts of the same description as have more recently appeared before the public. In this part of my work I have been called upon to speak more of the conduct of individuals than I could have wished, and, in doing so, I have been brought nearer to the confines of disputation than accords with my feelings. It has been, nevertheless, my solemn purpose to avoid giving just cause of offence to any man. I will continue to state such facts as are necessary to elucidate the character of Dr. Jenner; to delineate his efforts both as a medical philosopher and as a philanthropist; and this with the single object of presenting him to his fellow-men as he actually was. Could this be accomplished without seeming to attach blame to any individual it would be to me most gratifying. But as I cannot hope to be able to do this altogether, I trust I shall succeed in my endeavours to narrate the evidence without any admixture of prejudice, and to declare what truth demands "without wrath or doubting." I need scarcely repeat that these remarks do not apply to the vaccine controversy strictly so called, with which it is not my intention to intermeddle; they refer to questions of a personal nature, and it is impossible to uphold Dr. Jenner's reputation or to render the barest justice to him as a man, without meeting them in a manner the most open and unreserved.

The pretensions already mentioned have, I would hope, been sufficiently considered and refuted. It is now necessary to examine those of another individual. The quarter from whence this attempt has proceeded is calculated to excite no small degree of surprise in the minds of those who are acquainted with the history of vaccination either in this country or on the continent. Our neighbours in France seem not disposed to allow the ancient rivalship, that has so long interfered with the best interests of both countries, to subside. It unfortunately still appears that a degree of jealousy respecting the character of England is permitted to hold place in the breasts of scientific men, who ought to be well aware that truth knows no limits of country.

It is painful, therefore, after national harmony has been so long restored, to be compelled to observe a spirit of envy tending to keep alive an intellectual warfare, at all times unworthy of the republic of letters.

It would appear, from the article which has called forth these remarks, that England has a heavy debt of injustice to atone for to France. With a rapacious zeal she has appropriated to herself many discoveries in art and science which, of right, belong to her neighbour. A bill of indictment, containing many counts, has been drawn up against her; from which it might be thought that many of her recent inventions and improvements have been purloined from France, and it is more than insinuated that Vaccination is among the number. This charge is much to be lamented: neither country is so destitute of solid claims to respect and consideration, in the culture of human knowledge, as to render it becoming that either should attempt to disparage the other in matters of this kind. Let us hope that the time is approaching when higher and better principles will guide the whole family of civilized man; that truth in its purest form will be the aim and end of all their researches; and that their chief efforts will be directed to diffuse its blessings to every kindred and to every people. This object certainly was ever uppermost in the mind of Jenner, as from the first instant that he became fully acquainted with the character and virtues of vaccination he coveted nothing so much as to be able to render them accessible to every individual of our race.

In promoting this design he devoted his time, his talents, his fortune; and all this, too, when his discovery was undervalued, his motives calumniated, and his character traduced. Amidst no small suffering from causes of this kind, and with painful feelings of responsibility for the result of a practice which so immediately concerned the lives of his fellow-creatures, and the success of which was so often marred by the ignorance or incompetence of those who took upon them its administration, he continued to repay all the contumely and insult offered to himself with increasing and unremitting endeavours to heap greater benefits on mankind. France was among the first of the nations that experienced his benevolent purpose. The horrors of war had, at the time of the first publication, dissevered all national and personal intercourse, but they could not interrupt the course of Jenner's philanthropy. He set an example worthy of universal imitation; and endeavoured, as far as in him lay, to mitigate the evils attendant on a warfare conducted with a bitterness unusual in modern times: and it will hereafter be seen that some of the events in which he himself was personally concerned are almost the only bright and cheering incidents that give relief to the dark and dreary scene which Europe at that time exhibited.

All this was for a long period generously felt and

acknowledged by the French nation. Another feeling has, in certain quarters, begun to prevail, and very ill-founded attempts have been inconsiderately and, I would hope, unwittingly made to advance claims on the part of one of their countrymen, hostile to those of Dr. Jenner.

This event is in itself well calculated to cause astonishment; but that astonishment is increased when we consider who the individual is that brings it forward. M. Husson was one of the earliest votaries of the Jennerian practice. He studied the subject like a philosopher; he made himself perfectly acquainted with all the facts relating to the origin and progress of vaccination; he took a very active part in the dissemination of the practice, and has ever since held an important and confidential station in the Central Committee for Vaccination in France.

He was one of the earliest of the French authors who devoted their talents to the elucidation of this subject; and his "Recherches Historiques et Medicales" contain perhaps as complete and faithful a delineation of the origin, varieties, and advantages of the new inoculation as has appeared in any language. This publication, and his distinguished efforts in the cause, brought him into correspondence with Dr. Jenner, and from my personal knowledge I am certain that M. Husson occupied a high place in his estimation: in fact, it could not be otherwise when we consider the terms of respect and veneration with which that gentleman spoke of the author

of vaccination both in his published writings and in his private letters. As a convincing proof that this representation is correct, the reader is requested to observe the following, among other similar sentiments, which are to be found towards the conclusion of his work. "L'examen de toutes ces objections prouve bien évidemment la faiblesse des moyens employés pour s'opposer aux progrès de la découverte de Jenner." And again, "La postérité bénira la mémoire de Jenner, et les siècles à venir le proclameront l'un des plus grands bienfaiteurs de l'humanité." Such was M. Husson in 1803.

"Hei mihi, qualis erat, quantum mutatus ab illo"

in 1821.—In that year he published in the Dictionnaire des Sciences Medicales his elaborate article on vaccination: in which, after enumerating many scientific and literary thefts on the part of the English he concludes the list in the following terms, "Se sont également appropriés tout le mérite d'une découverte dont la première pensée leur a été donnée par un Français, et dont l'étude et la juste appréciation ont été, même de leur aveu, plus rigoureusement suivies parmi nous que parmi eux."

The sentiment expressed in this extract appears very strange when contrasted with that which precedes it; but it is still more remarkable when viewed in reference to the claim which it is designed to enforce. The whole history of this claim is so singular, and is so much at variance with well-

ascertained facts, as to have filled with amazement all in this country who have heard of it. Had it not been brought forward with all seriousness, and with such circumstantial details as might impose upon the uninformed, it would scarcely be necessary either to examine it minutely, or to give it consequence by a formal refutation.

I trust that the following words were written without sufficient consideration: "Il parait que c'est en France, en 1781, que l'idée première de la possibilité du transport d'une éruption de la vache sur l'homme a eu lieu; que cette idée, émise par un Français devant un medecin Anglais, a été communiquée par ce dernier au Docteur Ed. Jenner, qui ensuite aurait appliqué tout son attention à ce projet," &c.

I would willingly suppose that M. Husson never had read Dr. Jenner's own account of the origin of the vaccine inoculation, published in 1801, in which it is stated that his inquiry into the nature of cowpox commenced upwards of five years before the time assigned for "l'idée première" of M. Rabaut. Of course the details which I have given relative to the first impression made on the mind of Dr. Jenner concerning cow-pox could not have been generally known. I am sorry, however, that I cannot persuade myself that M. Husson was unacquainted with other sources of information, which might have demonstrated to him that the allegations contained in the preceding quotation are untrue.

I know that he had seen the Report of the Committee appointed by the House of Commons to inquire into the claims of Dr. Jenner, because he quotes largely from that very Report in his "Recherches sur la Vaccine," third edition, 1803. He could not, therefore, be ignorant of the testimony of Mr. E. Gardner, who proved that, in the year 1780, Dr. Jenner had communicated to him the result of his past inquiries with regard to the Variolæ Vaccinæ; and his hopes of propagating the disease by inoculation, to the eventual extinction of small-pox.

The manner in which it is asserted that the *first* idea of vaccination was communicated to Dr. Jenner is, to the full, as worthy of credit as is the pretension "sur l'origine vraiment Française de la Vaccine."

It appears that M. Rabaut, the protestant minister at Montpelier, was struck with the affinity between some of the eruptive diseases of the inferior animals, and the small-pox in man. His own observations applied chiefly to sheep, but a farmer in his neighbourhood informed him that the teats of cows were liable to a similar eruption, adding that it was a rare yet a mild disease. At this period, (1781) a Bristol merchant, Mr. Ireland, with his physician Dr. Pew, was in the habit of spending his winters at Montpelier. M. Rabaut, who was intimately acquainted with these gentlemen, observed, one day that the conversation turned on inoculation, "qu'il serait probablement avantagueux d'inoculer à

l'homme la picotte des vaches, parce qu'elle était constamment sans danger."

They conversed on this subject, it is added, when Dr. Pew said that immediately on his return to England he would propose this new species of inoculation to his friend Dr. Jenner. Many years afterwards (1799) M. Rabaut, having heard of the discovery of vaccination, supposed that his own proposition had been realized, and wrote to Mr. Ireland to recall their conversation on that subject. Mr. Ireland replied by two letters (the originals of which M. Chaptal has read) that he remembered quite well all that had been said at Montpelier, the promise which Dr. Pew had made of speaking to Dr. Jenner, but he says nothing of what Dr. Pew did on his return to England.

Such are the facts, as they are somewhat whimsically called, on which the title to the French origin of vaccination is made to rest.

The refutation which has been already given might be sufficient: but there is something so peculiar in the getting up of the story; so inaccurate in its affirmations; so inconsequential in its deductions; and so remote from truth in its most material positions that I cannot allow it to pass without further exposure.

In the first place, then, it is worthy of remark that it is not even alleged that M. Rabaut had seen, or knew, the disease on the cow; and that all the information which he possessed on the subject was

obtained from an agriculturist in his neighbourhood. Admitting that the farmer, good man! had really observed the disease as it exists in the cow; and, besides, knew something of its antivariolous virtues, it is truly remarkable that the faculty, although they had been seeking for it during twelve years in many departments of France, found no certain traces of it till 1810, at which time it is said to have been detected in the department of the Meurthe. It also may be worth while to notice that the disease of the cows is so rare in France that a single case of it reported to have been seen in the neighbourhood of Clairveaux (in 1822) is deemed worthy of special record in the Report of the Central Committee of Vaccination, for 1821-2. M. Husson was fully aware of both these occurrences. The first (in 1810) is stated in his article Cow-pox, vol. vii. of the Dictionaire Medicale; the second is attributed to him as Secretary to the Central Committee. Surely "L'agriculteur des environs de Montpelier" who first observed "la picotte sur le trayon des vaches" nearly fifty years ago, must have been mistaken in his observations, since it appears that nothing like an authentic proof that the disease existed in France was obtained till 1810; and that, too, after a diligent search on the part of all the medical and veterinary professors in that kingdom.

It is, therefore, certain that the cow-pox must be an extremely rare affection in France; and it will not imply a great degree of incredulity if, for the reasons already stated, any one should doubt the knowledge of M. Rabaut's informant, either as respects its existence or its antivariolous powers!

It now remains to make a few remarks on another part of this marvellous statement. It is distinctly affirmed by M. Husson that the *first idea* of the possibility of inoculating from the cow "émisé par un Français devant un medecin Anglais, a été communiquée par ce dernier au Docteur Ed. Jenner, qui ensuite aurait appliqué tout son attention à ce projet, &c."\*

Disposed as I am to make every allowance for such inaccuracies as are apt to arise when an author is intent in supporting a favourite assumption, I feel myself constrained to treat the declaration in the preceding extract with the seriousness that truth demands. I have already said enough to vindicate the claims of Dr. Jenner, which, indeed, could not have been affected even though the strange pretensions of M. Rabaut had been admitted. My present object is to expose more fully the unjustifiable manner in which these pretensions have been urged, and to enter a solemn protest against the confident and unhesitating mode in which unfounded assertions have been promulgated. It ought not to have been said on slight grounds that Dr. Jenner had derived his first idea of vaccine inoculation from M. Rabaut, through the medium of an English physician; nor

<sup>\*</sup> Vide Dictionaire Medicale, tom. 56, p. 394.

ought it to have been made matter of charge against Dr. Jenner that he had appropriated this idea without acknowledging in the most remote degree the source from whence he derived it; still less ought it to have been asserted that his countrymen had aided in this act of injustice, unless strong and sufficient evidence had been produced. Every one interested in the progress of science must feel the necessity of dealing with integrity and fairness in questions of this nature. Without qualities of this kind there is no certainty in the diffusion of knowledge, no security for the maintenance of truth, and the upright labourers in that cause must be deprived of their just distinction and reward.

Now, it has been demonstrated that Dr. Jenner's mind had been directed to the subject of cow-pox during his apprenticeship at Sodbury; that he carried the tradition of the country to London in 1770; and that he actually commenced his inquiry into its nature about five years thereafter. I need not, therefore, add that he could not have derived the first idea either from the Bristol merchant or Dr. Pew. On the subject of vaccination he certainly never had any communication with either of those gentlemen; and it is my conviction that he had no personal acquaintance with them whatever. I may further add that, if the Dr. Pew above-mentioned be the same person who lived near Shaftesbury in Dorsetshire, he never alluded to any circumstance connected with the pretensions of M. Rabaut, though

he was particularly engaged in a correspondence with Mr. Creaser of Bath, in 1804, respecting the origin of vaccination in his own county. Excepting this Dr. Pew I know of none other who has been in any way concerned in this matter. M. Husson has affirmed that Dr. Pew, to whom he has assigned so conspicuous a part, was the friend of Dr. Jenner: for this assertion there is as little foundation, as for his alleged communication of M. Rabaut's pretended discovery to Dr. Jenner.

The same work which sets forth the claims of M. Rabaut recounts likewise the pretensions of the Hindoos to the knowledge of vaccine inoculation. An ancient Sanscrit work has been appealed to as an authority on this subject.

The subject was mentioned many years ago in the Bibliotheque Britannique. It has, more recently, been revived in the Dictionnaire Medicale, and in the Madras Courier of the twelfth of January, 1819. The writer of the last-named article refers to Sancteya Grantham, a medical work attributed to Dhawantari, which is said to be "undoubtedly an ancient composition."

From this work extracts are given. The first extract describes the method of performing the inoculation with fluid taken from a pock on the udder of a cow, or from the arm of a human subject, &c. The next more particularly describes the small-pox produced by the fluid from the udder of a cow, and appears, in short, to be an imperfect abstract of the

opinions and descriptions of Dr. Jenner. It does not at all discriminate between the different sorts of pustules to which cows are liable; it is destitute of all the characters of fidelity and accuracy which give value to information of a scientific nature, and must, therefore, have been quite insufficient to have guided any one in the management of the very practice it professes to teach. This practice, if it did exist at all in India, must have been extremely rare, but the description given of it is not like that which would occur to any inquirer who had himself investigated the very singular properties of cowpox inoculation. On the contrary, it wears the appearance of a delineation which had been made, not from original observation, but from materials obviously acquired from other sources and put together with studied ambiguity, the writer having been more anxious to maintain the semblance of antiquity than to convey precise information on a point of infinite importance. Had it been otherwise it is inconceivable that any precise knowledge on the subject of vaccination, had it ever been obtained by the Brahmins, could have been overlooked, and allowed to remain in obscurity till it was called into notice by the industry of British residents in India. To no people on the earth was the secret of vaccine inoculation of greater moment than to the inhabitants of the East, and it exceeds all powers of belief, to suppose that such a secret could have been possessed by the most influential and most respected caste, without being diffused universally, and the practice adopted with corresponding avidity.

The suspicions excited by the internal evidence are not a little strengthened by some circumstances which I am about to mention. I made it my business to inquire from eminent oriental scholars whether such a Sanscrit work existed, and whether from their experience of the habits and customs of the Hindoos there was reason to believe that *they* possessed any knowledge of vaccine inoculation.

For valuable information on these points I have to express a deep feeling of gratitude and obligation to Sir John Malcolm, G.C.B. a gentleman not less distinguished by his genius and skill as a commander than by the wisdom, learning, energy, and benevolence evinced in all his civil relations. Through his kindness I am enabled to state the following facts:—

On the introduction of vaccine inoculation into India it was found that the practice was much opposed by the natives. In order to overcome their prejudices the late Mr. Ellis, of Madras, who was well versed in Sanscrit literature actually composed a short poem in that language on the subject of vaccination. This poem was inscribed on old paper, and said to have been *found*, that the impression of its antiquity might assist the effect intended to be produced on the minds of the Brahmins while tracing the preventive to their sacred cow.

The late Dr. Anderson, of Madras, adopted the very same expedient in order to deceive the Hin-

doos into a belief that vaccination was an ancient practice of their own. It is scarcely necessary to observe that had any authentic record of such a practice existed, these gentlemen never would have resorted to such a contrivance to gain their object. It is further to be observed that small-pox inoculation was frequently practised by the Hindoos, but there is no proof whatever that they employed vaccination.

Shortly after the introduction of vaccination into Bengal, similar attempts were made to prove that the practice was previously known there also. As the account of this transaction is somewhat different from that which occurred at Madras, it is proper to mention it. A native physician of Barelly put into the hands of Mr. Gillman, who was surgeon at that station, some leaves purporting to contain an extract of a Sanscrit work on medicine.

This work is said to be entitled Sud'ha Sangreha, written by a physician named Mahadeva, under the patronage of Râjá Râjasin'ha. It contained a chapter on Masúrica or Chickenpock.

Towards the close, the author appears to have introduced other topics; and immediately after directing leeches to be applied to relieve bad sores he proceeds thus: "Taking the matter of pustules, which are naturally produced on the teats of cows, carefully preserve it, and before the breaking out of small-pox make with a fine instrument a small puncture (like that made by a gnat) in a child's

limb, and introduce into the blood as much of that matter as is measured by a quarter of a ratti. Thus the wise physician renders the child secure from the eruption of the small-pox."

This communication was shown to Mr. Colebrooke and Mr. Blaquiere, both eminent Sanscrit scholars, and they both suspected that it was an interpolation. The first-named gentleman further adds that the original work, from which the extract purports to have been taken, was not exhibited to any one well versed in Sanscrit. I believe I may further add that Mr. Colebrooke made inquiries whilst in India, which fully satisfied him that no original work of the kind ever had existence. Sir John Malcolm has also been kind enough to ascertain that no such book is to be found in the library of the East India Company. From these statements it must be apparent, that the well-meant devices of those who attempted to propagate Vaccination in India, have led to the belief that the practice was known to the Hindoos in earlier times.

It is a providential arrangement that the satisfaction which well-regulated minds derive from the investigation of truth does not depend upon external things. The labours of those who cultivate this field are seldom duly estimated. The bad passions of their fellow-creatures too often interfere with their just claims to consideration, and cavillers and disputers either deny the accuracy of their statements, or attempt to disprove their originality.

This has been especially the fate of almost every inventor in medicine, and it was not therefore to be expected that Jenner should escape the common lot of his predecessors.

When Harvey published his great work on the circulation of the blood, he had not only to encounter a most violent opposition to his doctrines, but actually lost a great deal of public confidence, and experienced a sensible diminution of his practice as a physician. The strength of his demonstrations, however, at length vanquished all obstacles, and knowledge prevailed. Though his detractors were thus foiled, they were not defeated; they assailed him in another quarter, and contended (though his doctrines were true) that they were not his own, that traces of them were to be found in the works of Hippocrates, Aristotle, Plato, Galen, and Michael Servetus.

If men would but consider that "all knowledge (as has been happily expressed) is but the double of that which is," they would cease from these unjust attempts to rob those, who have brought that knowledge to light, of the praise which is their due. All the most splendid discoveries were in the first instance suggested by some apparently unimportant event; and who can tell how many more have been lost to the world, because those who are placed in situations to examine the changes and transmutations of different bodies, the habits or functions of plants and animals, or the processes in mechanic

arts, are incapable, either through inattention or ignorance, of taking advantage of unusual occurrences, of following out the hints and admonitions which every day's business and observation supply; and remain blind, or unexcited spectators of events which, had they been duly investigated, might have immortalized their own names, and conferred unspeakable benefits on their species.

Without referring to the histories of scientific discoveries, which are already well known, I may mention one fact that, I believe, has not been formerly noticed, bearing strongly upon the subject now under consideration. Every one is aware of the occurrence that first led Galvani to investigate that branch of knowledge which now bears his name, and which, in the hands of able inquirers, has led to some of the most splendid results of modern science. His lady, who was in a declining state of health, was about to be fed by a restorative soup prepared from frogs. The animals, skinned and prepared for the kitchen, were lying in the philosopher's laboratory, near his electrical machine. The machine being in action, an attendant happened to touch the crural nerve of one of the frogs with the point of a scalpel, which was not far from the prime conductor. The muscles of the limb were instantly thrown into strong convulsive action. This phenomenon, which was by no means anticipated, was presented to the observation of the lady, in the absence of the professor; she was very much struck with the fact, and communicated it to her husband. He immediately set himself seriously to investigate the subject, and was soon rewarded by a rich harvest of discovery. I introduce this anecdote in order to give due effect to the following incident. A considerable number of years before Galvani's attention had been drawn to the subject of animal electricity, a fact which was not ascertained till he had advanced considerably in his inquiries had been casually brought under the notice of another individual, but it led to no results whatever. The occurrence to which I allude arose in the following manner :-- A fish which was about to be prepared for dinner happened to be placed on a table in connection with two metals. A galvanic circle was formed, and the animal was thrown into convulsions: an event so unusual naturally attracted attention. It was reported to the gentleman of the house who was a medical man, and although he did not make one single attempt to prosecute so remarkable a branch of knowledge, he thought it worth while to record the circumstance, and an account of it was actually published in one of our scientific works.

I am exceedingly sorry that I am unable to specify the name of the individual, or the work where the fact is mentioned. I met with it many years ago, and made a particular reference, but I have mislaid my memorandum. I am, nevertheless, confident that implicit reliance may be placed on the accuracy of that part of the statement which it was my main object to bring forward; I mean the convulsion of the fish excited in the manner already described. Had the individual to whom that event occurred been possessed of the mind of Galvani, that philosopher would have been anticipated in his discoveries, but unquestionably his merit is not in the slightest degree diminished by the facts just mentioned, nor would it have been, though hundreds of such unproductive observations had been recorded before his time.

By a strange inversion, a dull man's blunders and incapacity are sometimes made to cast a shade over the brilliancy of genius. To such causes are we to ascribe the hard fate of many distinguished inventors. A fact which has been lying common and at waste, floating on the very surface of daily experience, is seized upon by some penetrating and inquisitive mind. Its relations to the different branches of human knowledge are examined and defined: it throws a light all around, and is a lamp to the feet of the inquirer, while he surveys other regions. Having thus explored a terra incognita up starts one, and says,-Sir, you have not the whole merit of this discovery; I knew that such a land, as you have visited and explored, existed, for I saw it, but did not approach it. Another says,—I was actually cast away upon the coast; I noticed some of the things which you have described. I did not examine them minutely, but I remember from your description that such things

did exist, and I therefore am entitled to the merit and reward which you claim.

A process similar to this marked the discussions regarding the origin of vaccination. The subject had been forced upon the attention of many individuals; but as far as they were concerned all the information relating to it might have remained in its original and unsatisfactory state. All the pretensions, therefore, of the men that became wise by the labours of Jenner, who achieved what they were unable to accomplish, instead of detracting from his fame ought to raise it still higher.

## CHAPTER XIV.

FORMATION OF THE ROYAL JENNERIAN SOCIETY.—DEPAR-TURE OF THE EXPEDITION UNDER DON FRANCISCO XA-VIER BALMIS FROM SPAIN.

I HAVE not been able to ascertain exactly at what time Dr. Jenner left London after the conclusion of the Parliamentary inquiry, but I suspect it must have been towards the end of July. In the beginning of August he was at Berkeley, where he received a visit from Dr. Franck of Vienna. This distinguished physician carried with him a letter of introduction from Dr. Babington of London.

DR. BABINGTON TO DR. JENNER.

DEAR SIR,

Nine years absence in the service of his country has obliged my friend Dr. Franck, the bearer of this letter, to visit your part of the world on account of his health; and the interest which he takes in the welfare of society at large makes him desirous of being made known to one of its greatest benefactors.

The object of my writing is to request that you will allow me to introduce him to your kind attention; such as you may have occasional opportunities of showing him, without putting yourself to any inconvenience. Dr. Franck has too much good sense and politeness to wish to trespass upon your valuable time. He desires merely the honour of being acknowledged as an acquaintance, which, I flatter myself when you come to know him, you will not repent of having granted, and which will add to the many kindnesses already shown to, dear Sir,

Your very grateful and sincere friend,

Wm. Babington.

Aldermanbury, Aug. 5th, 1802.

Dr. Franck's inquisitive and vigorous mind did not rest satisfied with superficial views of any subject. He acquired an accurate knowledge of vaccination as well as of its early history. He published an account of his travels in England, and the manner in which he mentions some of the events that took place soon after the appearance of Dr. Jenner's "Inquiry" proves that his information respecting transactions, which were not generally known, was surprisingly accurate. I allude particularly to the attempts made by certain individuals in London to elevate themselves by depreciating the merits of the author of vaccination.

I find from his memorandum-book that Dr. Jenner was at Cheltenham on the first of September, and there, I believe, he remained till the beginning of December, when he returned with his family to

Berkeley. He hoped in this seclusion to enjoy a few weeks repose after his arduous and harassing labours. This most reasonable expectation was not permitted to be fully gratified.

Several respectable gentlemen, friends of Dr. Jenner and of their fellow-men, anxious to see the practice of vaccination fixed on a firm basis in the metropolis, resolved to endeavour to form an institution for that purpose. On the 3d of December, 1802, they held a preliminary meeting in Queen Street; Benjamin Travers, Esq. in the chair. There were only three other persons present, namely, Dr. Hawes, Mr. Addington, surgeon, and Joseph Leaper. The proceedings of this meeting were communicated to Dr. Jenner by Mr. Addington.\*

## MR. J. ADDINGTON TO DR. JENNER.

Dec. 3d, 1802.

DEAR SIR,

I persuade myself you will hear with pleasure of every thing designed to promote the extension and beneficial

\* Another friend of Dr. Jenner's, the late respectable Joseph Fox, of Lombard Street, writing to him on this subject on the 4th December, observes "The plan which is in agitation is of the most extensive and liberal kind. It is even expected that the Royal countenance will be gained, but much depends upon you; all persons are looking towards you as the only proper person to lay the foundation-stone. It would be well if this could be done in the course of the present year, particularly as that is the memorable time, in which it received parliamentary sanction."

effects of your inestimable discovery. The resolutions which I have the honour to enclose are the beginnings of a scheme which contemplates a magnitude of operation, best characterized, perhaps, by saving that it aims to be in some degree commensurate with the claims of its object. add that for its support it has already the prospect of a very handsome contribution and, further, that it is likely to engage the attention and assiduities of some very respectable persons. The third resolution makes it unnecessary to inform you that it looks to your direction and assistance in its establishment and progress; and designs, whilst conveying to mankind the benefits of vaccination, to pay to the author of those benefits its first and best tribute of respect and gratitude. In fact it is wished to make it a Jennerian institution. The gentlemen therefore feel very desirous of knowing when it is probable that they may have the pleasure of seeing you in town, as they are anxious to proceed in the business without delay.

In their name, therefore, I beg the favour of you to give me this information by an early post; and I take this opportunity of saying that, for myself, I shall also be glad to consult you respecting another edition of my pamphlet which I am intending to publish. With the sincerest wishes for your happiness in proportion to the value of your services to mankind,

I remain,

Dear Sir,

Your obliged friend and servant,

J. Addington.

To this communication Dr. Jenner replied.

Berkeley, Dec. 10th, 1802.

My DEAR SIR,

The only apology I can make for not giving a more speedy answer to your very obliging letter is this; it found me just returned with my wife and children to our pleasant home, where I promised myself a few weeks of domestic comfort after some years spent, I may almost say, in constant anxieties.

This was the pull on one side, and on the other was the delightful prospect held up to my view of an establishment about to be formed for the promotion of universal vaccine inoculation: an establishment to which I have been, for years, looking forward with a longing eye. I need not go farther into explanation, and shall only say that, if it be incompatible with the generous design to suffer me to remain here the time I had allowed myself, I will certainly comply with the wishes of my friends, and go to town.

Yet it must be observed that I humbly conceive and, I may add, ardently hope that my presence will not be absolutely necessary. By this post I have written to my friend Dr. Lettsom and requested him to have the kindness to be (as far as such a thing is admissible) my representative. In his judgment on the present occasion I can place every confidence. There is no one, I believe, whose mind has been more zealously employed on the advantages that society will reap from the adoption of the benevolent scheme now in agitation, or will be better able to point out judicious plans. I do not think the business will be very complex. The society would perhaps so far indulge me as to permit of my inspecting the outlines of the scheme which may probably be brought forward at the next meeting; and in the best manner in my power I shall contribute to its final arrangement.

Pray be good enough to present my best respects, and acknowledgments of civilities to Mr. Travers and Dr. Hawes and the other gentlemen of the society you are so kind as to call Jennerian; and accept the best wishes of, dear Sir,

Your faithful humble Servant,

EDW. JENNER.

Mr. Addington,
Spital Square, London.

Mr. Travers, too, had written to Dr. Jenner on the same subject, and received an answer of like import with the preceding: it contained also the following sentences: "Government, I have no doubt, will give due support to so just and laudable an undertaking." "I am warranted in my suggestion respecting Government from a long conversation I had in the summer with Mr. Abbott (Speaker of the House of Commons) who expressed a wish that on my return to town I would renew it; at the same time added that after the investigation in the House of Commons he thought it became a public duty to form institutions for gratuitous inoculation."

On the 19th of January, 1803, a numerous and respectable meeting was held at the London tavern, at which the Lord Mayor presided. The committee, which had been appointed at a former meeting to prepare an address and a plan for the regulation of the society, on this occasion presented the result of their labours.

The Lord Mayor read the address to the public from the chair, and it was, on the motion of Dr. Lettsom, unanimously adopted by the meeting. The next motion having been made and seconded, the Hon. Admiral Berkeley rose and said that "he had it in command from His Royal Highness the Duke of Clarence to apologize to the meeting for his non-attendance, he having been unavoidably prevented from doing himself the pleasure and the honour of attending on the present interesting occasion; but that his Grace the Duke of Bedford had a motion in his hand which had his Royal Highness been present he himself would have made."

On this the Right Hon. Chairman observed that a motion had already been made and seconded, and that consequently it must be first disposed of. The Hon. Admiral acknowledged the propriety of the observation, but said that the motion was proposed as a tribute of esteem to a benefactor of the world; and that if the previous motion could be waived, and the wish of his Royal Highness could be acceded to, the honour intended would be greater coming from a popular assembly than if it were conferred by any organized society.

On this the previous motion, namely, "that this meeting do form itself into a Society for the extermination of the Small-pox" was postponed, and on a motion of his Grace the Duke of Bedford, at the special request of his Royal Highness the Duke of Clarence, seconded by the Hon. Admiral Berkeley,

it was resolved unanimously that the thanks of this meeting be transmitted to Dr. Jenner expressive of the high sense it entertains of his merit, and the great importance of his discovery, and particularly for the liberal offer of his assistance to accomplish the great object it has in view.

It was farther resolved that the Hon. Admiral Berkeley be requested to apply to His Royal Highness the Duke of Clarence to entreat his Majesty that he would be graciously pleased to become the patron of this institution, which the society considers would greatly promote its important object, that of rescuing a very large proportion of his Majesty's subjects from an untimely grave; and that he would permit it to be designated the Royal Jennerian Society for the extermination of the Small-pox.

The other resolutions referred to the opening of subscriptions, the appointment of treasurers and a committee for carrying into effect the objects of the society, &c. &c.

On the 17th of February another general meeting was held at the London Tavern. The report of the Committee, signed by John Julius Angerstein, Esq. the chairman, was presented to this meeting. It communicated the very gratifying intelligence that his Majesty had graciously condescended to become the patron: that her Majesty had with great benignity acquiesced in the request to become patroness: that his Royal Highness the Prince of

Wales and their Royal Highnesses the Duke of York, the Duke of Clarence, and the Duke of Cumberland, had evinced, in a most flattering manner, their willingness to accept the office of vice-patrons: that his Grace the Duke of Bedford had complied with their solicitation to fill the office of president; and that many prelates, noblemen, and gentlemen of the highest rank and respectability had consented to be vice-presidents of the society.\*

The Committee likewise interested many ladies of rank in support of the Jennerian practice: and they also appointed a board of directors and a medical council.

His Majesty's assent was announced to the chairman of the committee by an official letter from Lord Pelham: that of the Queen also officially, by the Earl of Morton. His Royal Highness the Prince of Wales was pleased to express his sentiments on this occasion in a letter to the Earl of Egremont. This letter evinced an ardent wish for the success of the new institution, and the most cordial approbation of the indefatigable perseverance of Dr. Jenner in perfecting the discovery of vaccination. This his Royal Highness stated from a full conviction of the efficacy of the practice, and from a distinct perception

<sup>\*</sup> I am indebted to Charles Murray, Esq. for the means of giving an account of the formation of this institution. He likewise most kindly forwarded to me some very important documents relating to the transactions I have recounted as occurring in the end of the year 1799.

of the incalculable advantages it promised to the world.

The gracious and beneficent mind of the Illustrious writer is displayed in every line; and the whole is truly characteristic of those great qualities which continue to add lustre to his still more EXALTED STATION, and shed so much of real glory on his REIGN.

His Royal Highness was pleased, on other occasions, to declare his admiration of this invaluable discovery; to patronize and to cherish it in every way; and at the same time, to announce the highest esteem for the worth and character of its author.

His Royal Highness the Duke of York, who, for reasons already specified, was constrained to withdraw from another Vaccine Institution, wrote to the Earl of Egremont that he would have great pleasure in giving every support in his power to the new Vaccine Institution; and most readily consented that his name should be added to the list of vice-patrons.

His Royal Highness the Duke of Clarence likewise kindly accepted the office of a vice-patron of the society in terms highly encouraging to the future prospects of the infant institution, as will be seen in the subsequent letter.

"To THE HON. ADMIRAL BERKELEY.

Bushy House.

DEAR SIR,

I shall be truly happy to be of any use in assisting Dr. Jenner to disseminate his invaluable discovery throughout

the British empire; and cannot but feel proud that my name should stand among those of the patronisers of your society.

I remain ever yours,
WILLIAM."

His Royal Highness the Duke of Cumberland also expressed his gratification in accepting the office of vice-patron of the society, through his secretary Colonel Stephenson; and he commanded him to add that "he should be at all times happy in having it in his power to contribute towards the promoting of so truly a benevolent undertaking."

Dr. Jenner remained at Berkeley till the first of February, 1803, when he left it for London, which he reached the next day. His short retirement in the country, though not free from interruptions, was very refreshing to him; he took long walks in his neighbourhood, and for a time was enabled to throw off the many cares which had, for years, oppressed him. The celebration of the birth-day of his eldest son, who on the 24th of January had completed his fourteenth year; his walk to Tortworth, the beautiful seat of Lord Ducie; his superintendence of the produce of his cider-mill; and similar incidents, which I find casually recorded among his memoranda, show how eagerly he returned to the habits and occupations in which he delighted. Such were his horæ subsecivæ; yet, whilst thus unbending his mind, he was neither idle nor indolent. Letters from various quarters poured in on him every post; and the affairs of the new institution occupied much of his time, and of his thoughts.

On the 3d of February he took his seat, for the first time, as President of the Royal Jennerian Institution. This meeting was held at the London Coffee-house. At subsequent meetings a central house for the institution, in Salisbury Square, was secured; a resident inoculator and medical secretary was appointed, and Dr. John Walker was elected to fill this situation.

In order to render just honour to Dr. Jenner it was determined that the friends of the institution should annually celebrate his birth-day by a public dinner. The first festival took place on the 17th of May 1803. The chair was filled by the Earl of Egremont.

On the 2nd of March Dr. Jenner, accompanied by Lord Berkeley, Lord Egremont, Lord Grantley, Mr. J. J. Angerstein, the Lord Mayor, Mr. Travers, and Dr. Lettsom, went to the levee as a deputation from the Royal Jennerian Society to return thanks to his Majesty for his goodness in becoming the patron of that institution.

The early proceedings of this society were vigorous and prosperous. Thirteen *stations* were opened in different parts of the metropolis. In eighteen months they were enabled to announce that 12,288 inoculations had taken place, and during the same space of time 19,352 charges of Vaccine virus were supplied from the central-house to most parts of the

British empire, and to foreign countries. The effect of these exertions was immediately perceived by a striking diminution of the number of deaths from small-pox within the bills of mortality. In 1803 they amounted to 1173; in 1804 they were only 622. The contrast will appear still greater when it is considered that the deaths amounted to 2409 in the year 1800; and that the annual average of deaths, for fifty years previously, was 2018.

This society was also in correspondence with other institutions, and its medical council investigated with care and fidelity such cases of small-pox as were alleged to have occurred after vaccination.

It would be foreign to the object of this work to trace minutely the proceedings of this institution. Founded for a benevolent purpose, fostered by the most exalted patronage, and adorned by all the learning and talent of the medical profession in the metropolis, it promised to run a long career of usefulness and honour; but the best devised human schemes too often carry within themselves the elements of their own dissolution. This unhappily was the case in the present instance. Irregularities soon crept into the proceedings of some of the officers of the society, which in a short time led to its virtual dissolution. Though matters did not arrive at an extremity till the year 1806, I am desirous, for various reasons, to finish now what is to be said on the subject. It is an ungracious and unpleasant one, and caused Dr. Jenner much disquiet; and had

not the character of the vaccine practice and his own personal feelings and conduct been deeply involved in the proceedings I am about to recount, I should feel great satisfaction in passing them by altogether.

" After the election of Dr. Walker, on the recommendation of Dr. Jenner, to the offices of resident inoculator and medical secretary, he published opinions on vaccination, and recommended a practice contrary to the positive instructions and printed regulations of the Society. Dr. Jenner, president of the Medical Council, considered it his duty to admonish him upon this conduct, and repeatedly represented to him, in the most friendly manner, the mischievous tendency of these innovations. These remonstrances, which were likewise made by others, were unavailing: the deviations from the practice enjoined by the authority of the Society, as avowed by Dr. Walker in his publications, became more alarming; and at length compelled Dr. Jenner, who thought them of the most dangerous nature, to prefer a complaint against him before the Medical Council, the only organ of the Society for determining medical points, and by whom he had been nominated to his situation."

In bringing forward his charges Dr. Jenner was moved strictly by a sense of public duty. Finding all his private efforts unavailing, he ceased to have any further communication with Dr. Walker, after the summer of 1805; submitting rather to lament

in silence the fate of the Society than come before it as a public accuser.

Dr. Walker's instructions to the Vaccine Institution at Nottingham, in March 1806, at length roused Dr. Jenner's fears for the safety of the practice, to such a degree, that he felt the absolute necessity of making his sentiments on the conduct of Dr. Walker publicly known. The Medical Council assembled to hear the charges was unusually full, consisting of twenty-four physicians and surgeons of high respectability, who investigated them and examined Dr. Walker's defence with most serious and patient attention; and after long deliberation they came to the following resolutions:—

Resolved—That, in the opinion of this council, Dr. Walker has very materially deviated from the practice of vaccination enjoined in the printed instructions of this Society; and that such conduct is entirely irregular and unauthorised, as well as inconsistent with his duty as resident inoculator and medical secretary.

That this council are of opinion that Dr. Walker is highly reprehensible for publishing under various forms and at different periods, whilst holding the offices of resident inoculator and medical secretary to this Society, doctrines and opinions directly contrary to the instructions published under the sanction of this Society.

That all the resolutions of this meeting shall be submitted to a special general court; and that the fitness of Dr. Walker to continue in the situation of resident inoculator and medical secretary be there determined.

It is unnecessary here to mention the specific instances of misconduct which were established against the resident inoculator. They regarded even the very name of the affection; the method of managing the pustule; the characters of correct vaccination; the precautions to be observed in conducting the practice, &c. &c. In all these respects Dr. Walker inculcated doctrines directly opposite to those which he himself was officially bound to distribute for the guidance of medical men throughout the world.

It is distressing to know that Dr. Jenner, and those who thought with him, could not act as became them on this emergency without having motives ascribed to them of a very unworthy nature. It can not be required of me to attempt to vindicate Dr. Jenner from any insinuations of this kind. His every action was at variance with whatever was, in the most remote degree, selfish or unjust. Indeed, if in this transaction the slightest blame can attach to him, it must be on the score of his forbearance, and not of a disposition to find fault.

A special general Court of the Royal Jennerian Society was held on the 25th of July, when a motion founded on the resolutions of the medical council was made by Dr. Denman, and seconded by James Moore, Esq., that Dr. Walker should be dismissed

from his office. This motion was negatived by a majority of three.

The proceedings of this day afford a melancholy proof of the mode in which many public institutions are managed. On the morning of the meeting a supporter of the resident-inoculator, by a payment of twenty guineas, brought, at once, twenty persons to vote in his favour, in direct defiance of the spirit of the seventeenth law of the Society. A ballot was therefore demanded by Dr. Lettsom, Dr. Jenner, J. J. Angerstein, Esq., Mr. Blair, &c. &c. &c., in order to collect the sense of the whole society respecting the conduct of Dr. Walker. The ballot was fixed for the eighth of August, but the proceedings were rendered unnecessary by the resignation of the resident-inoculator on that morning.

Had not these unpleasant transactions terminated in the removal of the offending party, Dr. Jenner certainly would have withdrawn from the Society. No man can read the reasons which he himself assigned for such a step without honouring him for the dignified and becoming principle that guided him in this determination. He looked upon every thing that tended to endanger the character of Vaccination, as a serious evil: and he would gladly have relinquished every personal gratification, or distinction, rather than have compromised in any way the safety of the practice. In this spirit he wrote thus to a friend—"With respect to the Society, if I had seen it go to wreck from a failure

of the system to which it gave sanction, that would have been heart-breaking indeed: but while I see that system flourish the world over, whether supported by societies or by individuals unassociated, my mind will be more at ease respecting the fall or continuance of the fabric in Salisbury Square than you could readily have conceived." To the same gentleman he had previously expressed his feelings on this topic thus:--" As president of the Medical Council, and in many other points of view, I am considered by the world as responsible, in a great measure, for the medical conduct of the Resident-inoculator at the Central-House. ders my situation so truly unpleasant (for I will frankly tell you that I have lost my confidence in Dr. Walker) that I think it quite necessary that one of us should withdraw."

I would here most willingly close my remarks on this subject were it not that the individual, whose conduct was chiefly complained of, has continued to endeavour to associate the name of Dr. Jenner with measures which he disapproved of and disavowed; nay more, with which he absolutely refused to be at all connected. As far as he was concerned he looked upon the Society as nearly extinguished after the late schism. It lingered for some time, but on the establishment of the National Vaccine Institution in 1808, its finances being exhausted, its operations would appear to have ceased entirely. An attempt was made in 1813 to revive this Society and the

chairman of a General Meeting, held for that purpose, Dr. Bradley applied to Dr. Jenner requesting his acceptance of the office of President. He, in an answer dated Cheltenham, September 3d, 1813, declined this proposal. It is desirable that this fact should be remembered, inasmuch as it proves that Dr. Jenner's name ought to be entirely disconnected from the proceedings of what is still unaccountably termed the Royal Jennerian Society.

The events in which Dr. Jenner was chiefly engaged while he remained in London related to the establishment of the infant Society. He occasionally took the chair as President of the Medical Council, and forwarded by every means in his power the objects of the institution.

Early in this year (1803) he was visited by Dr. Valentin, of Nancy. This learned and estimable physician had conceived the greatest attachment to the author of vaccination. His own mind had for many years been directed to the history of that dreadful disease which the new practice is calculated to subdue, and his elaborate history of small-pox was nearly printed when the tidings of Jenner's surprising discovery arrived in France. The value of this discovery was quickly appreciated by the The vaccine enlightened mind of Dr. Valentin. practice had commenced in Paris in the year 1800. In the month of October of the same year it reached Nancy, and soon spread to every department of the kingdom. Dr. Valentin not only assisted in diffusing the practice, but studied it with the spirit of a philanthropist. In 1802 he published the results of inoculations with the Vaccine in the departments of La Meurthe, La Meuse, des Vosges, and of Haut Rhin. This work contains an account of some experiments which he instituted at Nancy of a very interesting and novel nature. He proved that it was possible to vaccinate with success not only the cow but likewise the goat, the ass, the sheep, and the dog; and that matter taken from their pustules afforded protection from the small-pox. These very interesting facts I have had occasion to refer to in another chapter, and it is but justice to Dr. Valentin to observe that no experiments undertaken to elucidate the character of the Variolæ Vaccinæ were better devised or more successfully executed than those which he originated. They were afterwards repeated by Dr. Sacco, of Milan; an account of them was published in his quarto work in 1809.

Dr. Valentin arrived in London at the time in which the question touching the connexion between the cow-pox and the grease was much agitated. All the principal medical men in London were adverse to the opinion. Dr. Jenner's own evidence was treated with little respect, and the experiments of Dr. Loy did not produce the conviction they deserved. Under these circumstances the letter from Dr. Sacco, announcing his very interesting and conclusive observations on this subject, was received by Dr. Jenner. To gain information on all points con-

nected with cow-pox Dr. Valentin visited the West of England. On his return to London he told Dr. Jenner that the opinion of many of the farmers did not coincide with his. Jenner replied "You have seen that Dr. Sacco, who was one of the most incredulous, has been converted;" and he mentioned at the same time the evidence just received from Suffolk, which had been collected by Lord St. Asaph. To this he added another circumstance which bore on Dr. Valentin's experiments. The latter had proved that the cow was not the only animal susceptible of the Variolæ Vaccinæ: Dr. Jenner, in like manner, had ascertained that the cow was not the only animal capable of receiving the infection of the grease. A sheep that had three lambs, of which two perished, being incommoded by the superabundance of milk was drawn by a servant who, at the same time, dressed the greasy heels of a horse. Pustules, similar to those of the Vaccine, appeared on the teats of the sheep: the same person who milked the sheep immediately afterwards milked two cows, and communicated the disease to them. From the cows thus infected a servant of the house received the cow-pox.

Dr. Valentin held intercourse with many of the other medical gentlemen who had distinguished themselves in this cause. Among those was the late Dr. Woodville. He, I believe, had at that time become sensible of the mistakes committed at the Small-pox Hospital, and of his harsh proceedings towards Dr. Jenner. This state of mind laid

a secure foundation for the renewal of that intercourse which had been interrupted. Happily, peacemakers were found to assist in carrying on this good work; Dr. Lettsom, Dr. Saunders, and Dr. Valentin also aided: Jenner could not resist any overture of this kind. He never harboured resentments, and he found no difficulty in convincing Dr. Woodville that forgiveness and kindness were congenial to his mind. His magnanimity is the more to be commended because his sensibility was singularly acute, and he felt injuries done to the vaccine cause more severely even than wrong done to himself. He further remembered that Dr. Woodville had once watched over his eldest son, when in dangerous sickness, with the skill of a physician and the tenderness of a parent. This incident dwelt with him, whilst every occurrence of an unpleasant nature was gladly allowed to pass into oblivion.

When Dr. Valentin quitted London in June 1803 Jenner sent him a note which he requested him to publish in foreign journals. This note proves how much the pressure of his correspondence was felt by him at this time. He, therefore, begged Dr. Valentin to express in his name, through the medium of the public papers, his lively sense of gratitude for the many letters and printed works on Vaccine Inoculation which the friends of that practice, in France, had addressed to him. He entreated them to accept this general expression of his thanks; his numerous occupations, and the ill

state of Mrs. Jenner's health entirely absorbing his time, and rendering it impossible for him to address them individually, as was his wish. He besought, likewise, foreign societies who had sent him diplomas to receive this apology, promising to make up for the delay on the first favourable occasion.

Dr. Valentin kept up a frequent epistolary correspondence with Dr. Jenner. The war which then raged between the two countries rendered this intercourse uncertain and difficult; the letters sometimes taking a circuit by Gibraltar, the Barbary coast, and Sicily: many of them afforded the most convincing proofs of the esteem and regard that were entertained by the writer for his friend in England.

The arrival of Dr. Sacco's letter, and the communication from Lord St. Asaph confirming the connexion between the grease and the Variolæ Vaccinæ, gave great satisfaction to Dr. Jenner. Those who were inimical to his doctrine as well as to the practice of vaccination itself were becoming very clamorous, and evinced their hostility in various ways. The parliamentary discussion; the Royal patronage; and the increasing fame of the author, with which all "Europe rang from side to side," excited a peculiar animosity hurtful to the public, and highly discreditable to those who exercised it. effort was made to undervalue his individual merit as a discoverer, first by upholding the pretensions of others, and next by denying the utility of the discovery itself.

He, being in the zenith of his fame and standing on the firm basis of truth, had no occasion to notice such assaults. He regretted them more on account of the check given to vaccination than of the injustice done to himself. At the time that he was made the object of every uncandid remark, one of his old associates in the meetings at Alveston hearing of these most unfounded aspersions, wrote to him and retraced the history of their discussions at the meetings of that society; thereby confirming the statement already given of his unquestionable claims to the discovery.

MR. SHUTE TO DR. JENNER.

Bristol, Sept. 12th, 1803.

MY DEAR SIR,

I have often mentioned in many companies that to my certain knowledge the idea of vaccination had been long maturing in your own mind; as an investigation into the phenomena of the cow-pox, more particularly with respect to its property of securing a person in future from the small-pox, had been often urged and introduced at a medical meeting of which I was a member, but that I did not think that that interest had been excited in the minds of the majority of the members, which subsequent experience proved it to have so well deserved. And at the very time that I professed to require further proofs of the decided efficacy of vaccination, I constantly asserted that, if any benefits were to result from the practice, the idea was your own, and that no person could for a moment pretend

to deprive you of one particle of the honour of the discovery.

\* \* \* \* \*

If the enemies of vaccination were ignorant and intemperate, it must be confessed that its friends were, at times, over zealous and injudicious. This was shown both by what they did individually, and the measures they wished to recommend for general adoption. Some practised vaccination without acquiring a suitable knowledge of the disease. They neglected to watch its progress, and consequently permitted many to believe that they were protected from small-pox who never had the cow-pox. There can be no doubt that a very large proportion of the failures which, of late years, have been reported is to be ascribed to this ignorance and inattention. Those who did not practise vaccination themselves wished to see its general adoption enforced by a Parliamentary enactment.

An authoritative enforcement of this kind has certainly been of the greatest service in foreign countries, but the habits and modes of thinking in England do not admit of such compulsory interference. Part of the following letter from Sir Henry Mildmay contains this sentiment, and also alludes to another point in which Jenner was personally interested.

SIR H. S. MILDMAY, Bart., M. P., to DR. JENNER.

MY DEAR SIR,

I beg the favour of you to send me some vaccine matter which is to be immediately forwarded to Italy. Should you be enabled to give me this assistance, I think it extremely probable that it will considerably contribute to the general object we have in view, as I have reason to believe that the persons for whose use it is designed are of the first consequence in that part of the world. Should you be able to oblige me I will thank you to direct it to Marquis Douglass, Duke of Hamilton's, Grosvenor Place.

I own that I am sorry to see that the zeal of some of our friends carries them to a point which, if persisted in, I fear will tend to injure the cause. I see a plan advertized (and indeed I heard of it last year) to prohibit by Act of Parliament the use of small-pox inoculation. I am confident it will not pass the House, and I fear will create an alarm in the country that what we cannot prove by reason and experience we are determined to carry by force. Confident as I am of the complete efficacy of the vaccine matter I have not a doubt that, if left to take its own course, its adoption in lieu of small-pox inoculation will very shortly become universal, but if attempted to be enforced by Act of Parliament, I fear that a prejudice against it will be created which will, for some time at least, retard its progress.

When you come to town be so good as to let me see you, as I shall be glad to converse with you on the subjects of last year, and to take any part you please in any future measures for obtaining a more substantial and adequate compensation for the great blessing you have been the means of disseminating over the world.

Lady Mildmay begs to be kindly remembered to you, and I remain,

My dear Sir, Your truly faithful,

H. S. MILDMAY.

Stanhope Street, Jan. 31, 1803.

The request of the Medical Society of Plymouth to Dr. Jenner to sit for his picture has been already mentioned. The thanks of that body were conveyed to him by Dr. Woolcombe in terms highly complimentary.

SIR,

The members of the Medical Society of Plymouth have deputed me to convey to you their thanks for your compliance with their wishes in sitting to Mr. Northcote. They have directed a proof impression of the engraving made from the picture to be sent to you, of which they request your acceptance.

While with pleasure we observe the progressive influence of your brilliant discovery, with peculiar satisfaction we regard the just tributes of public applause which are paid to the beneficent discoverer.

I am, Sir,

With the highest Respect,

Your obedient Servant,

WILLIAM WOOLCOMBE.

Plymouth, Feb. 7, 1803.
Dr. Jenner.

The Rev. Dr. Booker, of Dudley, who some time before had printed a sermon on the subject of vaccination, did not remain satisfied with that effort, but exerted himself in promoting the practice in a very efficient way, as will more fully appear from the following letter.

## Dudley, 17th March, 1803.

Conceiving myself bound in strict propriety to communicate to you whatever comes to my knowledge that relates to your great medical object, I send you the inclosed, together with the substance of my reply, viz: that by means of the liberality of our surgeons in general, who inoculate the poor, gratis, with the vaccine, and the extensive encouragement given to that practice by Lord Dudley in paying for the inoculation of all the children of his numerous miners, &c. your salutary discovery is gaining a wide welcome throughout this populous neighbourhood.\* To these means I assured Mr. Addington rather than to my humble recommendation of the measure, must be attributed its growing success.

You will see, however, in the annexed address to parents on the subject that I have done more than recommend it from the pulpit. One of these printed forms I give to every person who brings a child to be baptized either at church or at my own residence, or when sent for to baptize abroad. By this means I distribute about

\* The higher and middle classes universally adopt it, and the prejudices of the lower are subsiding apace; the offer to them from the churchwardens and overseers tended, I think, rather to awaken suspicion. That from the surgeon and humane noblemen was the most effectual.

twenty a week, and have the satisfaction to learn that the expedient has produced the desired effect. It influences at a time when mankind are easily convinced of the precarious tenure of infantine existence; and when they are ready to embrace any offer of security from one of the most alarming diseases to which a child is exposed. This expedient occurred to me before I knew that a similar one was used in Switzerland. As the printer, by my desire, keeps the form unbroken in his types, I have any number of copies taken off at a small expense whenever I want them. Should any alteration suggest itself to your better judgment I shall have pleasure in receiving and adopting it."

\* \* \* \*

This year the aboriginal Americans began to participate in the blessings of the vaccine discovery. A very interesting account of this event was sent to Jenner by his correspondent Dr. Waterhouse.

Cambridge, April, 8th, 1802.

MY DEAR SIR,

Four hours ago I received your polite and very interesting letter dated 24th February. The ship had but thirty-two days passage. I have just put your Lombardy virus into a fine female arm of about two-and-twenty years' standing, and shall give you the result by the return of the ship which brought it. I am highly gratified by your written, printed, and engraven communications. I shall send one of each to the President of the United States directly. You have executed the very plan I had in contemplation, viz. printed directions on a page of a sheet for a common letter; for my numerous correspondents in these States have rendered the repetition of the task respecting

directions so tiresome that I had resolved on a printed letter like yours. Now I shall just reprint yours, with the additional weight of your name to it.

Dr. Rush has come out full and strong in praise of the new inoculation, and has sent me a copy of an eloquent lecture of his on the blessings of the Jennerian discovery. I believe I informed our friend Dr. Lettsom that the vaccine inoculation was carrying on its salutiferous powers into the wilderness of the new world. If I did not, I will repeat it here.

Last December a grand embassy of certain tribes of the Indians came to the city of Washington while the Congress was sitting, or as they phrase it, while the sixteen fires or lights were burning. Our Government continued to do every thing to ameliorate their condition. They had sent them seventy ploughs, ten looms, and fifty spinning-wheels, with every common utensil in husbandry, besides establishing blacksmiths, bricklayers, &c. They had taught them to plant orchards, to rear and manage horses, to use scales and weights and measures (for heretofore the white traders used to put in the scales their foot or right hand against their beaver and ermine skins.) In short, Washington, Adams, and Jefferson have done every thing to civilize that shrewd people. The chief of this embassy was named Little Turtle. The President one day sent for this warrior and his interpreter, and told him that he had a matter of great importance to communicate to him, for the benefit of the whole nation of his Red Children, for these savages always call him Father. He then told him that the GREAT SPIRIT had lately made a precious donation to the enlightened white men over the great water, first to a single person, and from him to another on this side the waters, and then explained to him the history of the cow or kine-pock as a gift from Heaven to preserve them from

the small-pox, and even to banish it from the earth. The chief heard him with marked attention, and desired first to receive the benefits of it himself. This was performed soon after by the Rev. Dr. Gautt, chaplain of Congress, and also upon nine or ten more warriors in his train. On their departure the President caused them to be supplied with the virus; and the interpreter (a white man) took a copy of the directions for conducting the process I had transmitted to the President.

When the Minerva returns I may possibly write you a *letter* instead of this *receipt* for your valuable favours; as it is, you will receive the cordial wishes of an affectionate friend,

## BENJAMIN WATERHOUSE.

It was not till some years after this that the Mohawks and other Indians connected with our Canadian provinces received the advantages of vaccination. It will hereafter be seen that they expressed their gratitude in *their* most emphatic manner to Dr. Jenner.

The benevolent founder of the Humane Society, Dr. Hawes, proposed Dr. Jenner as an honorary life governor at the half-yearly court held on the 24th of March, 1803. "Every mind, every hand, and every heart" he observes "were unanimous in Dr. Jenner's election."

To illustrate his private habits and pursuits, as well as to evince the sentiments entertained by his friends of the measures adopted both for his personal advantage and the diffusion of the vaccine practice, I insert two documents which may be acceptable to the reader.

## MY DEAR DOCTOR,

As you gave us a very satisfactory account of the cuckoo, I trouble you with this to inform you that a woman in this parish has one she has kept in a cage all the winter. If you wish I should make any inquiries as to food, &c. I will do it with pleasure.

I hear you are appointing apothecaries in every parish to inoculate for the Cow-pox. You would oblige me much if you would appoint Mr. Cole, Mount Street.

Your friends made a poor business of your application to Parliament, as I think you the greatest patriot that ever existed; and you ought to have had at least 50,000%. All here unite in most kind regards to you and Mrs. Jenner,

And believe me to be,

My dear Doctor,

Your's most faithfully,

Sherborne,
April 19th, 1803.

SHERBORNE.

THE DOCTOR JENNER.

MY DEAR DOCTOR,

I see by the order of your Society that five guineas, or upwards, in one donation constitute a governor; or one guinea annually. As Lady Sherborne and I would wish to have our names in such good company as long as we can, I have desired a person to pay two guineas for us, as annual subscriptions. I only now wish that the first medical man who can be wicked enough to inoculate for

the Small-pox, and the patient should die, that the coroner's inquest may bring in their verdict wilful murder, and that he may be hanged in terrorem of his brethren; not as a warning to himself, as I once heard an Irish judge tell a man he had condemned to be hanged the next day—"take that, my friend, as a warning."

As to the cuckoo, it departed this life last Friday.—A neighbour persuaded the woman who had it to carry it out at her door; the day being uncommonly cold, and the cage uncovered, it died at night. It was very tame and flew about the house, and when called would perch on the woman's shoulder and head. The food given was the yolk of an egg hard-boiled, and water and raw meat. At night she put it in some feathers in the crown of a hat in a cupboard, with a light bit of flannel thrown over it. The cage was a common wicker cage, such as you see magpies kept in. The air of a cottage could not be very warm, though this woman baked for the whole parish with the wood she stole from me.

I am, my dear Doctor,
Yours faithfully,

Sherborne, May 2nd, 1803.

SHERBORNE.

His Royal Highness the Duke of York, whose generous mind early perceived the beneficial effects that would arise to the army from the practice of vaccine inoculation, and under whose immediate auspices the first mission that left our shores to diffuse that practice to distant countries was undertaken, found it necessary this year to issue an order enforcing increased attention to the examination of

recruits, that each might be vaccinated who had not had either small-pox or cow-pox. This order is dated November 15th, 1803.

In October Dr. Jenner was gratified by a poetic effusion from the celebrated author of the "Bath Guide," Christopher Anstey, Esq.

Of this gentleman's native Muse the inspirations are known to all the admirers of playful and elegant satire; but as his Camœnæ Latinæ are, perhaps, less familiar to the English reader, a few stanzas from the Carmen Alcaïcum addressed to Dr. Jenner, are here given.

O! qui secundo natus Apolline Incumbis arti pæoniæ, studens Arcana Naturæ, gravemque More novo prohibere morbum,

Jennere, laudes an sileam tuas?

Dum mente sanus, nec cythara carens,

Turpive succumbens senectæ

Rura vagor per amæna Cheltæ?

Furore quod non ante domabili
Tot dira Pestis quæ peperit mala,
In gentis humanæ levamen,
Te medico superata cessit;

Quippe arte mira quæ tibi contigit, Puris benigni guttula, ab ubere Inserta vaccino lacertis, Corporeas penetrat meatus, Brevique facta in vulnere pustula, Propulsat Hostem, nec sinit amplius Inferre morborum cohortes Innumeras, comitemque mortem.

Te mater ambit filiolo cavens
Ut tuto ab atra corpore sit lue,
Innupta te virgo decentes
Sint memori sine labe malæ:

Utcunque nostris laudibus invidens Gens quæque grates dat tibi debitas; Te Gallus extollit, tuamque Obsequiosus adorat artem.

Nec longiori carmine te morer, Mentemque curis utilioribus Jennere seducam,—valeto.— Teque, tuosque, precor, labores

Deus benigno numine prosperet; Et dum perennis gloria Laureæ Insignit Heroas Brittanos, Civica te decorat Corona.

Soon after the publication of Mr. Anstey's ode, a translation, or paraphrase, in English verse appeared from the pen of "honest John Ring," one of the Doctor's earliest and warmest *Vaccine* friends in the metropolis.

Though as a metrical version it possesses merit, and is animated with the true spirit of ardent friendship, it has not been introduced here, from an earnest desire not to swell these pages with matter at all extraneous to their great object, a just exhibition of Jenner's life and character. A brief quotation, however, may not be deemed altogether irrelevant.

"Jenner, farewell!—nor shall the bard detain From nobler studies by too long a strain, Nor from its object alienate a mind Intent on labours useful to mankind.

May Heaven, to whom my suppliant voice I raise, Prosper thy labours and prolong thy days! While deathless heroes, who maintain our fame And add new glories to the British name,

Around their brows unfading laurels twine, The civic crown, O Jenner! shall be thine.

It may here be worthy of remark that the profits of Mr. Ring's poem were given to the Royal Jennerian Society for the extermination of small-pox.

Dr. Jenner was not without tributary verses from other sources. The Rev. Thomas Alston Warren, of Kensworth vicarage, near Dunstable, had published an address to his parishioners on the subject of Vaccine Inoculation. It very successfully combated the errors and prejudices of his poor parishioners, and was very gratifying to Dr. Jenner. But

the reverend gentleman did not stop here. He accompanied it with a complimentary letter, and poem.

The author of the Farmer's Boy too, who had been patronized by Dr. Jenner, sang "his woodnotes wild" in praise of his benefactor.

Every extension of the vaccine practice in foreign countries was followed by increasing respect and veneration for the author. This feeling was almost daily expressed by letters and addresses from individuals and public bodies. About this time he was elected foreign associate of the Society of the School of Medicine of Paris. A similar honour was conferred on him by the Medical Societies of Avignon and Nismes.

Among the other honours conferred on Jenner this year I have to add that of Doctor of Laws from the University of Cambridge, Massachusetts. The diploma was sent to him by Dr. Waterhouse in November.

His personal influence was felt to be so great that many strangers applied to him to accomplish that which all the interest of our Government could not effect. On the sudden breaking out of the war, after the peace of Amiens, many of our countrymen were most unjustly detained in France. During the preceding year Jenner had received civilities from General Andreossi, then French Ambassador at our Court. Dr. Jenner's first attempt to obtain

the liberation of some of the *Detenus* was through the medium of that gentleman. His next application was addressed to the National Institute of France. An English nobleman of high rank had exhausted all his interest to obtain permission to leave Paris. Jenner having become acquainted with this incident offered to intercede for his enlargement. To that circumstance the two following letters refer.

TO THE MARQUESS OF HERTFORD.

November, 1803.

My Lord,

Since I did myself the honour of addressing your Lordship on the subject of Lord Yarmouth's liberation, I received a solicitation to intercede in behalf of the Peploes, a family detained at Paris on their way to Spa.

Having made an acquaintance with General Andreossi during his embassy here, I wrote to him, but received no answer. However, I have since heard that this family has obtained permission to go into Germany; so that it is probable, although General Andreossi has not written, that he may have interested himself for them; and not in vain.

On reflection, my Lord, I think my chance of success would now be greater by addressing a body than any individual. My letter I consign to the care of your Lordship. Whether it may be necessary to seal it I cannot determine: that it may meet with success is my most ardent wish.

E. JENNER.

TO THE NATIONAL INSTITUTE OF FRANCE.

GENTLEMEN,

Pardon my obtruding myself on you at this juncture. The Sciences are never at war. Peace must always preside in those bosoms whose object is the augmentation of human happiness.

Permit me, then, as a public body with whom I am connected, to solicit the exertion of your interest in the liberation of Lord Yarmouth, a young nobleman at this time detained with his family in France.

Lord Yarmouth, the son, the only son of my valued friend and patron the Marquess of Hertford: He stands high in my estimation for being among the foremost who encouraged my scheme of: Vaccination when in its infancy, and contending with the prejudices of the world.

There is another family of the name of Peploe in whose behalf some months ago I solicited the interference of General Andreossi, a gentleman with whom I have had the honour of becoming acquainted during his residence in London; but alas! I have received no answer to my letter, nor heard any thing of my friends.

Should I be so fortunate as through your kind interference to see my friends restored to those who are suffering on their account the most painful solicitude, I shall ever be ready most gratefully to acknowledge the obligation you will have conferred upon me.

I have the honour to be, Gentlemen, with high consideration,

&c. &c. &c.

E. JENNER.

In October 1801 the Royal Economical Society of Madrid had elected Dr. Jenner an honorary member. The first notification of this event I believe never reached his hand. The second was conveyed to him by Lord Holland. His lordship's secretary, Mr. Allen, on transmitting the diploma observes "There is no country likely to receive more benefit from your labours than this (Spain), for on the one hand the mortality among children from the small-pox, and its consequences, has always been very great; and on the other hand the inoculation for the cow-pox has been received with the same enthusiasm here as in the rest of Europe; though I am sorry to add that the inoculation of the spurious sort has proved fatal to many children at Seville, who have fallen victims to the small-pox after they had been pronounced secure from that disease." Mr. Allen adds, "as one of the many proofs of the estimation in which the cow-pox and its discoverer are held in Spain, I have enclosed a small engraving, which has just been thrown off here in order to be prefixed to a dissertation on the cow-pox about to be published by the Royal Academy of Medicine." The print spoken of by Mr. Allen was an engraving of Jenner-under it was written " Edward Jenner, English physician, to whom the world is indebted for the Discovery of Vaccine, the wonderful and only preservative from the small-pox."

The duplicate of the diploma is dated May 31st, 1803. On the 15th of the following August another learned body in the Spanish capital conferred its academic honours on Jenner. This was the same royal medical foundation mentioned in Mr. Allen's letter. But the Spanish Government itself, towards the conclusion of this year, gave a proof of the value which it attached to vaccination more gratifying to the feelings of Dr. Jenner than almost any other incident that had occurred in its history. He had but a short time before learnt by advices from our settlements in India, and by letters from Dr. de Carro. of Vienna, that the efforts to transmit the preservative to Asia had completely succeeded. He now had the satisfaction of knowing that the Spanish monarch had resolved to fit out an expedition for the express purpose of carrying to all the possessions of the crown of Spain beyond the seas, and to those of several other nations, the inestimable gift of vaccine inoculation. The plan adopted on this occasion was precisely that which had been repeatedly, though unsuccessfully, recommended by Dr. Jenner to persons in authority here.

It is said that an individual, not otherwise favourably known to Europe but then high in influence at the Court of Spain, I mean Godoy, the Prince of Peace, had the merit of suggesting this truly noble enterprize to the king.

An expedition was prepared, which set sail from

Corunna, on November 30th, 1803, under the direction of Dr. Francis Xavier Balmis, surgeon-extraordinary to the king. There were on board twenty-two children, who had never undergone the smallpox, selected for the preservation of the vaccine fluid, by transmitting it successfully from one to another during the voyage.

After an absence of nearly three years the able conductor of this philanthropic expedition returned to Madrid, having circumnavigated the globe, and having more than realized the most sanguine expectations that were entertained at his departure.

I will not dwell, at present, on the many interesting events connected with this memorable voyage. They will be recorded at length in a future part of this work, as they unfold themselves in connexion with the history of Jenner.

It is impossible to attend to the facts which have rapidly passed in review before us, without experiencing feelings of gratitude and admiration for the unexampled rapidity with which individuals and nations were incited to simultaneous and successful efforts for the extension of this discovery.

In this respect mankind seem to have acted with a spirit of unanimity not usual in human affairs. In a time surprisingly short every moral obstacle, every geographical boundary gave way; and nations, not less differing from each other in language, in habits, in religion, than in climate and every outward circumstance, speedily abandoned their prejudices and eagerly received from the hands of strangers the proffered blessing. The aboriginal American, the followers of Brachma and Confucius, the blind and obstinate votaries to Mohammedan fatalism, alike concurred to embrace and cherish this salutary gift of their bountiful Creator.

As there is something peculiarly affecting in the history of the origin and progress of small-pox, a scourge universal in its infliction and carrying terror and devastation in its course, so there is in the nature and character of its antidote that on which the heart can dwell with thankfulness and wonder. Who can know that a power has been put into the hands of man to control the greatest of all his physical ills, and not be devoutly grateful for the boon? Who can reflect that there are those who disregard it, and not lament such obstinacy and blindness?

Whatever sentiments such persons may entertain of vaccination itself, they cannot but confess that some phenomena have attended its march over the globe, such as in no former instance distinguished any of man's inventions. In little more than six years after its promulgation it was known in every clime. Proceeding eastward and westward from our own island, it traversed the circumference of the globe: and, had the practice been pushed in all countries with the same zeal and perseverance as it has been

in some, small-pox by this time might probably have been known only by name, and by the melancholy records of its former ravages throughout the World.

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