last phalanges of the index finger. M. Guérin having first removed all trace of paralysis by the use of friction, moxas, &c., proceeded to operate in the following manner on the 21st July, 1840, in the presence of MM. Amussat, Mott, Donné, Clot-Bey, and several other distinguished medical men. He divided the heads of the pronator teres, palmares, superficial flexor and ulnar flexor, near the elbow-joint; in the fore-arm he divided the four tendons of the flexor sublimis, the tendons of the flexor proprius pollicis, of the flexor ulnaris, and of the palmares; finally, he divided the adductor pollicis in the palm of the hand, and the four tendons of the flexor profundus. The object of dividing the same muscles in different places was to avoid the great separation which might take place between the divided portions, if only one point of the muscle was cut through. The nineteen sections were executed in half an hour with the utmost dexterity, and without the slightest accident.

The immediate result of the operation was as follows: the hand was moved more freely on the wrist, and was less flexed; the thumb also was free, and completely restored to its natural position; the tips of the fingers had recovered their natural position, but the second phalanges remained flexed on the first, as before. Simple dressings were applied, and great care was taken to exclude all air from the wound. I felt no pain after the first hour and a half which followed the operation; there was no trace of reaction, nor any accident whatever.

On the 23rd of July, the dressings were removed; all the little wounds were healed up. M. Guérin now endeavoured to move the limb in various directions, and found that the abductor pollicis was strongly retracted, a little above the wrist-joint; he therefore divided the tendon at once. It was impossible to extend the second phalanges of the fingers. An apparatus was now applied; it is unnecessary for us to give a minute description of it; suffice it to say, that it was intended to extend the fore-arm on the arm, the hand on the fore-arm, and to effect supination. As all the joints were very stiff, the use of this instrument caused severe pain, and M. Guérin being convinced that it was next to impossible to extend the second phalanges on the first, decided on cutting the four tendons of the flexor sublimis at the level of the first phalanges. This he did on the 27th June, and in three days the wounds were healed; the machine was now reapplied after a short interval, and its action assisted by baths, frictions with camphorated oil, &c. By these means the natural shape and position of the fingers were restored. As to the motions of the elbow-joint, it was soon found that they could not be improved, from the osseous mass which projected into the articulation.

The flexion of the hand on the fore-arm was extremely difficult to overcome. Every means were employed with little success up to the 22d August, when M. Guérin divided the palmares and the flexor ulnaris in the fore-arm. The wounds healed rapidly, as usual; I was not compelled to remain in my room even for a single day. This new operation gave me great relief, and in a short time I could, by mere muscular effort, bring the hand into a right line with the fore-arm.

On the 1st of December M. Guérin performed on me the twenty-eighth operation, by dividing the exterior tendon of the little finger opposite the

metacarpo-phalangeal joint; and on the 25th January, 1841, he completed his long and arduous task by dividing the opponens pollicis: this was his twenty-ninth operation.

In order to complete the history of my cure, I must now describe the condition of my hand after all these operations, and point out the exact amount of benefit which I have derived from them.

The movements of the elbow-joint have been but little improved: the reason of this has already been stated. Before the operation, the hand was constantly in a state of pronation; supination was impossible; now I can effect a certain degree of supination by mere muscular effort, and with a little assistance, a much greater degree; still, however, complete supination cannot be attained. The extension of the hand on the fore-arm has been very considerably improved; I can carry it not only in a straight line with the arm, but even a little backwards, and this is of great importance. As to flexion and lateral motion, they are just as perfect as in the normal state. The thumb is quite straight, but I cannot bend the second phalanx. The metacarpal joint of the index finger is pretty free, but the power of flexion depending on the superficial and deep flexors is completely lost; the metacarpal joint of the middle finger, also, is free, but I cannot bend it voluntarily. The same joint of the index finger is very stiff, but it will, probably, become free in time.

The superficial flexor tendon, divided at the level of the first phalanx, has united, and there is slight power of flexion, but the deep flexor does not seem to have united in the same way.

There is no motion whatever in the fifth metacarpal joint, but the phalanges are very free and easily moved.

To conclude, it results from the above observation, that out of twenty-nine sections of tendons, reunion has not taken place in seven; viz. in the four deep flexors, near the phalanges; in the superficial flexors of the index and middle fingers, near the same parts; in the proper flexor of the thumb. Hence the action of these different muscles has been completely lost. As to the ultimate results of the operation, I may state; 1st, That the diseased condition of the nerves and muscles, which produced contraction and paralysis, is cured: 2nd, The deformity of the hand has almost completely disappeared: 3rd, The movements of the elbow-joint, and extension and flexion of the wrist-joint, have been very evidently improved, and we have every reason to hope that time will augment the degree of improvement: 4th, But as regards the movements of the fingers, I shall think myself very happy if, after a considerable lapse of time and much exercise, I shall be able to flex the metacarpo-phalangeal joints a little more, so as to bring the tip of the thumb to the other fingers, and thus seize objects between them; for at present the action of the deep and superficial flexors is completely lost.

EXPERIMENTS IN THE REVACCINATION OF CHILDREN WITH NEW VIRUS.

BY T. S. KIRKBRIDE, M.D. OF PHILADELPHIA.

SMALL-POX and varioloid disease having been unusually prevalent in this city and its suburbs,

during the past spring, I was induced, while attending two of our public charities, to revaccinate the inmates of those institutions.

The number subjected to the experiment is much smaller than I could have desired: still the results may not be void of interest. Two hundred and nine children were revaccinated, upon some part of whose limbs a perfectly formed, rounded, stellated, or punctated cicatrix was found. All others, upon whom this indication of previous vaccination was not discovered, are excluded from this report.

Of the total number, one hundred and thirty-four were boys, and seventy-five were girls; and the average ages about twelve years, the extremes being six, and twenty. The *virus* used was eighteen and nineteen removes from the cow, being derived from that forwarded by Mr. Estlin and Dr. Carpenter, of Bristol, England, to Professor Dunglison, of this city, near the end of 1838, and from which source of supply a large number have been vaccinated by the vaccine physicians and private practitioners of Philadelphia. The dry scab was employed in every instance. A portion of it being softened to the proper consistence, was placed upon the raw *cutis*, which had been exposed to a small extent, by abrasion of the cuticle with a dull and round pointed lancet; a few crosses with the same instrument, but rarely sufficient to produce a drop of blood, completing the operation; a plan, which, in primary vaccination, we have rarely found to fail. These scabs were taken from the arms of healthy children under one year, except a small portion from an individual thirteen years of age.

Of the two hundred and nine children with perfect cicatrices, forty-four, or rather more than twenty-one per cent., had the disease perfectly—presenting precisely the same characteristics which I have observed from the use of the new virus in primary vaccination. The proportion of successful cases did not differ in the two sexes. It is also proper to remark that in several cases there were vesicles upon the arm which ran an irregular course, i. e. there was slight phlegmonous inflammation—but all such are rejected from the report.

Three of the cases had sloughing of the arm, which left ulcers that were several weeks in healing. Of these three, one was in bad, the others in perfect health.

Although some members of the profession appear disposed to reject the new virus, from the severity of the symptoms which it induces; yet, except in the three cases just referred to, we have never seen sloughing, or other unpleasant effects. It does certainly produce more decided symptoms than the virus which has been in general use for years past; it is slower in its progress to maturity; the inflammation is generally greater, with more constitutional disturbance; the scab is much later in falling off, and adheres strongly in its central point—conforming, in a great measure, to the first observations made by Dr. Bridges, of this city. My own observations induce me to put more confidence in its prophylactic powers than in the old virus, although this point can only be settled by time, and an enlarged experience by the profession generally.

To test the virus obtained from revaccination,

I used part of a scab in about twenty of the cases embraced in this report, and subsequently in children who had never had the vaccine disease, and with the same success as from crusts derived from primary vaccination. It was this scab that was alluded to in a previous part of the paper as having been derived from an individual thirteen years of age.

The recent lymph so generally adopted for vaccination in Great Britain, and on the Continent, is here rarely used; while the dry scab, which is spoken of in some reports on revaccination as nearly always failing, is, we believe, in this country almost universally employed.

In none of my cases, was more than one vesicle observed in those subjected to revaccination.

Two or three took the vaccine who were said to have had small-pox in infancy; but from the character of the children given in a previous note, there may be some doubt on this point. Of ten thoroughly scarred from that disease, no one was affected by the vaccination. In five children who had no cicatrices, and who had been several times vaccinated unsuccessfully with the old virus, there was no appearance of a vesicle.

My friend, Dr. Pepper, assisted me in a number of the cases at the Refuge, and observed the results in all.

I regret that other engagements prevented my repeating the experiment in those cases that failed in the first instance.—*American Journal of Medical Sciences.*

Philadelphia, October 7th, 1840.

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SATURDAY, APRIL 3, 1841.

It will not, perhaps, be deemed out of place if, in commencing another volume, we take occasion to review the progress made in various subjects of interest connected with the objects of our publication. Of those which have especially required and received attention, the public relations of the Medical Profession necessarily stand foremost. To advocate, and, as far as we had the power, to promote the settlement, upon equitable grounds, of the questions relating to the organization of the Medical Profession, has been our earnest wish; and though many circumstances have conspired to delay the immediate settlement of these questions, we have the gratification of perceiving that the discussion which they have received has tended much toward the spread of just ideas. Many of those, who were before indifferent, have become alive to the importance of securing a fitting constitution to the profession, and more effective protection to its individual members. Information respecting the actual grievances complained of has been more generally diffused, the evils resulting