the lower in the same proportion; and to still further influence the angle at which the couch is to be used, by means of extra screw holes in the wood; the longer pair of legs being brought nearer to the foot of the couch, a greater elevation can be secured. The flat piece of wood being so prepared, is covered with several folds of soft thick blanket to about two inches in thickness, the blanket being just the size of the wood on one surface only; over this a piece of well polished black horse-hair cloth is stretched, and being turned tightly over the edges of the board, is nailed underneath, so as to produce a smooth, somewhat soft, but yet slippery, almost polished surface. Where the blanket crosses over the hole already described, it must be cut across in two directions, longitudinally and transversely, and the horse-hair cloth should be left loose over the same spot, so that, if pressure be here applied, an indentation will be quickly made.

Now, if a couch be prepared in this way, and placed at such an angle of elevation as I have here described, about one part in six of its length, a person lying upon it on his back will soon find, unless he make some effort to resist, that he will quietly slide down towards the lower end of the couch; and if his attention is otherwise absorbed, he will have his feet over the end of the board, as he is sliding beyond it. By a very simple device, this tendency to slide or slip downwards may be very beneficially utilised for the object we have in view.

A small, firm, cylindrical pillow is prepared, about the diameter of the wrist, and a foot in length, and this is attached by strong tapes, one at each end of the pillow, and fixed to each upper corner of the couch, the length of the tapes being such as to place the pillow transversely on the board immediately below the lower edge of the hole in the wood. With this pillow in position, and the patient so placed that the pillow may be received into the recess of the nape of the neck, the projection of the occiput falling into the depression made by the hole in the wood, the body is retained in position, and the sliding down is prevented, but yet there is a constant gentle dragging action on the spinal joints from the weight of the pelvis and lower limbs, which will act most favourably in the required direction.

It is desirable, when a patient uses this couch for the first time, that he should try it without the pillow; and, if needful, the elevation of the couch should be adjusted until the peculiar sliding movement is experienced. Then, with the help of the pillow, and the back of the head falling into the recess prepared for it, the patient will be aware of the principle upon which the couch is intended to act, and be more likely to continue its use.

All other couches, such as the Ikley couch, and couches with a double angular bend to support the knees, or with a foot-piece against which the feet can rest, are entirely opposed in principle to the plan of this "slippery couch." Using them, the patient may feel rested, and experience some temporary relief; but I know of no way, by reclamation, to secure a certain degree of spinal extension, better than to fix the upper segment of the vertebro-cranial axis at one spot, and allow the weight of the lower part to induce direct "self-extension."

PERFORATING ULCER OF THE FOOT, AND ITS CONNECTION WITH DISEASE OF THE NERVOUS SYSTEM.

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CONSIDERABLE interest attaches to perforating ulcer of the foot, owing to the fact that, in many instances, it is found associated with locomotor ataxy. Four well-marked instances of this affection have recently come under my observation; and, from a comparison of them, I think we are justified in dividing cases of this nature into three distinct classes, as follows.

CLASS I.—*When the Ulcer is entirely due to Local Causes, e.g., suppuration of a bursa beneath a corn.* When suppuration occurs in this situation, the pus may penetrate the thickened epidermal tissue, and discharge through the centre of the corn; in other cases, failing to pierce the thickened epidermis, it may, making its way in the direction of least resistance, find an exit at some other point, often on the dorsal surface of the foot. Under these circumstances, a condition is produced, which, though generally spoken of as a perforating ulcer, should perhaps be more correctly described as "suppuration beneath a corn." In many instances, this condition is associated with disease of the neighbouring bone or joint. In un-

complicated cases, with rest, scraping the sinus, and stimulation, the ulcer will often heal; but when, as is so often the case, the bone or joint are involved, amputation of the toe will be required. Under these circumstances, the stump usually heals readily, and no recurrence of the disease takes place.

CASE I.—Charles W., aged 60, presented himself at the out-patient room, in March 1882, with what is usually described as a perforating ulcer, situated on the outer aspect of the phalangeal joint of the great toe, the history of which pointed to the fact that it had commenced as suppuration beneath a corn. On examining the toe and exploring the sinus, the phalangeal joint was found to be diseased; there was no evidence of locomotor ataxy, and the condition of the foot itself was in all other respects perfectly normal. Amputation of the toe was performed at the metatarso-phalangeal joint; the wound readily healed; and, when last seen, twelve months after the operation, the patient was in all respects perfectly well, and there had been no recurrence of the disease.

CLASS II.—*When the Ulcer occurs in connection with Locomotor Ataxy, and apparently independent of any Disease of the Peripheral Nerves.* Under these circumstances, the ulcer may, as Ball and Thibierge have shown (*Trans. Internat. Med. Congress*, vol. ii, page 52), occur, in some instances, as an early or premonitory symptom; in other instances, as a late or terminal symptom, when the disease is well established. The following cases illustrate these two conditions.

CASE II.—Thomas W., aged 40, sustained a slight contusion of the right foot, six years ago. Some weeks subsequently, an ulcer appeared on the joint of the great toe; and, as it would not heal, amputation of the toe was performed. Two and a half years ago, a similar ulcer formed on the great toe of the left foot, for which he was admitted into the hospital, and the toe was removed; at that time, no symptoms of locomotor ataxy were present. Twelve months ago, he began to experience shooting pains in the limbs, and suffer from attacks of vomiting; shortly afterwards, symptoms of ataxia appeared. Six weeks ago, the right ankle-joint suddenly became extremely swollen and oedematous. The patient was again admitted into the hospital, and, under the influence of rest in bed, the joint-symptoms gradually subsided. At the present time, the symptoms of locomotor ataxy are well-marked; the patient presents the characteristic ataxic gait, and is unable to stand with his eyes shut; there is absence of patellar tendon-reflex on both sides; the pupils are unequal, and present the Argyll-Robertson symptom. There is marked loss of sensation in both feet. There has been no recurrence of the ulcers, and the stumps of both great toes remain firmly healed.

In this case, the ulcers appeared on the one foot five years, on the other foot one and a half years, before any ataxic symptoms showed themselves. The affection of the ankle was, no doubt, an example of the benign variety of arthropathy described by Professor Charcot.

CASE III.—Edward S., aged 48, was first attacked about twelve months ago with shooting pains in both legs, pains about the abdomen, and dimness of vision; subsequently, he began to experience a gradually increasing difficulty in walking. Six months ago, ulcers appeared over the little toe of the left and great toe of the right foot. At the present time, ataxic symptoms are well-marked, being very similar to those described in Case II. The ulcer on the left foot has closed, but that on the right is still present, and obstinately refuses to heal.

In this case, the ulcers appeared at a much later stage than in the preceding, and when the ataxic symptoms were well established. The relation which perforating ulcer bears to locomotor ataxy is somewhat obscure; for in this affection the morbid changes are usually limited to the spinal cord and posterior nerve-roots, the latter structures only becoming implicated in the later stages of the disease. Recent investigations, however, show that, in certain cases, atrophy and sclerosis of the nerve-fibres of the sciatic nerve is present, while in others a diseased condition of the terminations of the sensory nerves has been observed. It is quite possible, therefore, that further research will reveal the fact that, in cases of locomotor ataxy, complicated by perforating ulcer, disease of the peripheral nerves is also present; otherwise, we must regard the local affection simply as an example of a tropho-neurosis dependent upon changes in the nervous centres.

CLASS III.—*When the Ulcer occurs in connection with Disease of the Peripheral Nerves, without any evidence of Locomotor Ataxy or other disease of the central nervous system.*

CASE IV.—Charles W., aged 40, presented himself as an out-patient, in the summer of 1881, both feet being affected with perforating ulcers, which had first shown themselves in 1877. Two toes

had been amputated, and in each instance the disease had recurred in the stump. The patient was admitted into the hospital under Mr. Heath, and both feet were eventually amputated. A microscopic examination of the nerves from both feet was made by Mr. Priestley (*Lancet*, 1883, vol. i, page 452), and in each instance he found well-marked evidence of sclerosis.

In this case, which has now been in progress for six years, and which is still under observation as an out-patient, there has never, from first to last, been any evidence of locomotor ataxy. The changes here found in the peripheral nerves resemble very closely those met with in a case recorded by Messrs. Savory and Butlin (*Medico-Chirurg. Trans.*, vol. lxii, Case v, page 378). Almost identical cases have also been described by other writers; so that it appears probable that perforating ulcer may, in some cases, be dependent simply on disease of the peripheral nerves, without any apparent implication of the nerve-centres. Of course, it is quite possible that, in cases of this kind, symptoms of central disease (*e.g.*, of locomotor ataxy) may eventually develop themselves; but, in Case iv, six years have now elapsed, and as yet no indications of the onset of that condition are present.

CASE OF SECONDARY SUTURE OF ULNAR NERVE SIX MONTHS AFTER ITS DIVISION.

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In a paper on "The Immediate Suture of Divided Nerves," published two years ago in this JOURNAL (vol. i, 1881, p. 717), I referred to cases of secondary nerve-suture which had recently been under my care. The following seems of sufficient interest to deserve a brief record.

J. H., aged 25, six months before admission to St. Mary's Hospital, received on the left wrist a severe wound from glass, which took a month to heal. From that time he had extreme pain in the cicatrix, his ring and little fingers became bent and useless, he was obliged to carry his arm in a sling, and his general health became seriously affected by the constant pain which extended both upwards and downwards from the site of the wound. Here, on admission, there was found a dense cicatrix an inch and a half long, running in a curved direction upwards and outwards on the anterior surface of the forearm from the styloid process of the ulna. It was excessively tender, and he dreaded the least touch. He had lost the power of extending the two last phalanges of the ring and little fingers, and to a less extent of the other fingers also, and the thenar and the hypothenar eminences, together with the interossei, were markedly wasted. Sensation was very defective, though not entirely absent, in the ring and little fingers, more especially on their palmar surfaces. The whole hand, indeed, was somewhat anæsthetic, and looked lifeless and withered from long disuse. It sweated constantly and profusely; the little finger was blue and slightly swollen, and the nail was much misshapen. Opposite the head of the fifth metacarpal bone was a dark purple patch of the size of a shilling, and just below the cicatrix the skin was distinctly hyperæsthetic.

The man was anxious to have something done for his relief, and accordingly, on April 4th, 1881, I cut down on the site of the ulnar nerve, and after much difficulty the separated ends were at length discovered. The upper end of the lower portion was completely hidden from view, being turned downwards and inwards, and ended in thick cicatricial tissue on the under surface of the tendon of the flexor carpi ulnaris. It was not enlarged, and a transverse section of it, when freed from the cicatrix, showed the appearances of healthy nerve. The lower end of the upper portion was swollen to about three times its natural size, and ended in a firm bulbous nodule, which also was bound in cicatricial tissue. From this it was dissected, and a third of an inch had to be removed before the section looked natural. It was necessary to dissect the upper part of the nerve free for a couple of inches, before the two ends could be brought into comfortable apposition. They were then joined by three fine catgut sutures passed through both sheath and nerve. The wound healed by first intention, thus fulfilling one requirement for the success of the operation. As early as the 13th, the man said his fingers "felt somehow different," and the anæsthesia when tested was certainly less marked. By the 28th, the sensation had decidedly improved, the cicatrix was free from pain, and he even had some returning power of extension of the last phalanges of the ring and little fingers.

He was discharged on April 29th, with instructions to use his hand as much as possible. He returned in a fortnight, having made but little progress; and it was, therefore, deemed advisable to place him under the care of Mr. de Watteville, who has kindly given the following record of his treatment.

"When he was first examined electrically, the phenomena of the complete reaction of degeneration in its advanced stage were present. At first galvanism only was used: the hand being placed in a basin containing hot water and one of the poles, and a flexible metal plate covered with wash-leather, and connected with the other pole, being fixed upon and above the seat of injury. The strength of the current was the maximum endurable; voltaic alternatives were made; and the application, lasting ten to fifteen minutes, repeated every day for the first few weeks. Later, faradisation of the muscles of the hand and ulnar nerve *above* the seat of lesion was used, conjointly or alternately with galvanism. The applications were reduced to two or three a week. After about a year of this treatment, the only muscle which was distinctly wasted was the abductor indicis. This muscle at first had almost entirely disappeared, so that the most powerful galvanic currents scarcely produced any visible fibrillary contractions. Having regained a fair use of the hand, the patient ceased to attend the hospital, but applied the faradic current himself every day for about six months, until the hand practically regained its normal appearance and functions."

When last seen, on February 23rd, 1883, the man stated that he had been at work as usual for several months, and that his hand was as useful as ever it was. There was then no sign of trophic disturbance; sensation was normal; there was no wasting; and his only complaint was of occasional pain in the cicatrix on change of weather, and inability to perfectly extend the last phalanx of the little finger.

Without making any further comment on the subject of nerve-suture, about which much has been written during the last few years, and with which I dealt at some length in my former paper, this case seems worthy of publication as an instance of complete recovery of nerve-function brought about by suture as late as six months after the division of the nerve, and also by the *steady and long-continued use of electricity* to restore the nutrition of the wasted muscles. Not a little, however, is the successful result in this case due to the patient himself, to his perseverance in using his hand after the operation, and his endurance of the pains of galvanism. In a case on which I operated about the same time, where there was an almost exactly similar wound, the same kind of trophic change, and a like incapacity, the patient, a nervous hysterical woman, gave no help whatever after the operation, and the result has in consequence been far from satisfactory. The nerve-ends had been pretty easily brought together, union of the wound had occurred without suppuration, and the trophic changes altogether disappeared; but the woman persisted in nursing her hand in a sling, and the needful application of electricity so distressed her, that she ceased attending the hospital, better in some respects than before the operation, but with a result very different from that of the man.

THE RISKS OF "MASSAGE."

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"MASSAGE," which has for a long time been the Cinderella of therapeutics, has recently seen a considerable change in its fortunes, and become as thoroughly fashionable as mesmerism and homœopathy have been at previous periods in the history of medicine. The "Weir-Mitchell treatment" more especially, which has been found very useful in some obstinate forms of hysteria, is now being indiscriminately applied to all sorts of cases of cerebral and spinal disease of which loss of power forms a conspicuous symptom; and it is therefore time that we should say, "Hands off!" lest a procedure which does good in a limited class of cases should suffer by the excessive praises of injudicious partisans, and eventually be thrown aside altogether.

Professor Busch of Berlin, who has written the most recent and sensible treatise on massage and gymnastics (in vol. ii, part 2, of von Ziemssen's *Handbuch der Allgemeinen Therapie*, Leipzig, 1882), recommends these proceedings chiefly for the treatment of deformities, and of muscular pain. Amongst nervous affections which have thus been treated, he mentions scriveners' palsy, stammering, some forms of hysteria, and muscular paralysis or paresis after poliomyelitis; without, however, saying much in favour of this treatment