quently that, at one time, the child made very frequent mistakes in colour; that she had bought a black reel of thread for a white one, and seemed surprised when told of her mistake; and that she had made some other blunders. When last seen, in April 1877, her general nutrition was improved. She had no analgesia; her field of vision was natural, and so was her perception of colours. She had had, however, one or two attacks of globus, and she still complained very often of coldness. The mother stated that at no time had there appeared any sign of menstruation.

CASE II.—Ellen T., aged nine years and a half, was brought for fits, from which she had suffered for four years. In these fits she fell down as though she had been shot. Sometimes she worked with her hands, but more often there were no movements at all, and they were almost momentary. She never bit her tongue, and never slept after them. We assumed at first that these fits were epileptic; but bromide of potassium had not the slightest effect upon their character or frequency. At a subsequent period, although she was stated to have had no fewer than thirty-five fits the day before—and, during the previous thirteen days, never fewer than twenty-five in the day—I was struck with the fact that there was no sign of dementia, or paralysis, which would have been almost inevitable in true epilepsy. I saw one of her fits, in which she simply fell down momentarily, as though she had been shot.

I have seen other cases of that character which were indubitably hysterical, and which ceased directly the patient was taken into hospital. In one of them (a patient under the care of my colleague, Dr. David Lees), such fits could be induced at will, by making a sudden sharp noise close to her ear.

In this case, the absence of dementia, coexistent with such a long continuance and great frequency of fits, suggested their hysterical nature. It was found that both arms and both legs were analgesic; and that she allowed the needle to be pushed into the skin, between the digits, without wincing in the least.

CASE III.—A boy, aged 9, a church chorister. He was brought on account of fits, in which he suddenly fell down in church without any twitching, and which were not followed by any coma, or paralysis, or loss of intelligence. He was a healthy boy, but with a face of rather refined feminine type—what would be called an interesting child. He was found to be absolutely tolerant of the application of a needle down one side of his body, and almost absolutely tolerant on the other side; but he could localise the position of the needle-prick perfectly, and knew when he was being pricked, although it did not give him any trouble.

CASE IV.—A girl, aged 9, was brought on account of paralysis of both legs, from which she had suffered for nine months, without any affection of sphincters or wasting or rigidity of limb. She was absolutely tolerant of every kind of stimulus applied to the lower limbs. A double-celled Stöhrer at full power caused no sign of distress, although it brought the muscles into marked relief. Faradism was continued for a quarter of an hour, and at the same time the child encouraged to try to make efforts. At length she began to wince a little; and by degrees the paresis entirely disappeared, and she became able to walk naturally.

CASE V.—Emily P., aged 8, was brought to the hospital in July 1877, on account of fits, which, it was said, she had been subject to for two years. In most of them, she began by dancing with both feet, and then she fell down, struggled violently, and screamed. When in the out-patient room, she had a fit; she fell down, grasped my arm, and kicked out with her feet vigorously. The pupils remained unchanged; but the eyelids quivered. There was no facial distortion, and the duration of the whole fit was not more than one minute. After she came round, she was found not to flinch in the least to pin-prick; but she told her mother that her arm was being pricked, and after a few minutes withdrew it. She was able to tell colours correctly.

CASE VI.—Jane K., aged 5½, was brought to the hospital in December 1877, because she had been getting peevish and queer for about a fortnight. She had lost her appetite, made frequent mistakes as to the taste of things, and complained of pain under the left breast. She had had a fit three weeks ago; but the mother could give no account of it. On examination, no sign of organic disease could be found; and the child seemed fairly nourished, although a little pale. There was something in her aspect which led one to suspect the possibility of hysteria, and for this reason she was tested for analgesia. It was found that pricking her arms, legs, and face was not followed by any attempt to withdraw the part so pricked. When the face was pricked, there was the slightest possible play about the lips. Strong faradism was then applied to the legs, and after this the child winced. The mother was not in the least surprised when she saw the lack of ordinary response. She said the child had “never felt the same as other people”, and that a few days before she had scorched her arm badly against the fire-

grate without crying at all. I saw the scar (three inches long) left after this injury. On a former occasion, the mother stated that the child had cut her thigh very deeply with a piece of broken pottery, and had manifested only very slight distress.

CASE VII.—Mary S., aged 3, was brought to the hospital on November 12th, 1877, on account of fits, to which she had been subject for three days. She had been left during the day at a *crèche*; and on the evening of the 9th, when her mother went for her, she found her exceedingly pale. There was some reason to believe that she had been shut up in a closet; but this was not absolutely certain. On going home, the child screamed a great deal; and during the next three days had repeated fits, in which she clenched her hands, threw her head back, arched her back, worked her eyelids, and screamed out “Mammy” continually. It was found that she was analgesic all over to the prick of a pin. She neither cried nor withdrew her limbs. A week afterwards, the analgesia was still present, and it was noticed that she had very frequent quivering of the lids. After this, she had chicken-pox, and subsequently only one very slight fit. When brought again, she was quite cheerful in her aspect, and the analgesia and quivering of the lids had disappeared.

CASE VIII.—Edmund H., aged 2 years and 9 months, previously healthy, in May 1880 fell from the sofa on to the floor. He did not lose his senses, neither was he bruised. The same night, he had a fit, of which his mother gives a very vague account; his legs, it appeared, moved a great deal, but not his hands; and he was brought to rights immediately by a bath. Since this, he had had four faints, according to her account, in which he suddenly fell down, but did not twitch. When seen, he was a healthy-looking boy, but obviously a very self-conscious one. He did not cry in the least, or object to being examined; but, on the two occasions that he was seen, he kept his hands before his face, unless they were held down. There was no reaction to pin-prick applied to any part of either upper limb. When the left cheek was pricked, there was the slightest possible play of features. When the right cheek was pricked, he cried a little.

A NOVEL MODE OF APPLYING PLASTER-OF-PARIS BANDAGES.*

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I WISH to bring under the notice of my fellow-associates a mode of applying plaster-of-Paris bandages which, so far as I know or have read, has not hitherto been described or recognised in this country; and the more, indeed, may this be said, for in the report, now before me, of the discussion at the Royal Medical and Chirurgical Society on the “use of plaster-of-Paris bandages in the treatment of simple fractures”, held on June 14th, I do not find that any speaker referred to this plan.

Before giving the description, let me add that this special mode is due to the thought and care of M. Denis Dumont, Senior Surgeon to the Hôtel-Dieu at Caen, in Normandy. In a casual visit to Caen last month, I found my way to the hospital, and was especially struck with the good results of these bandages in several cases I saw.

The material employed is a coarse-meshed muslin (*tarlatane* in France, *crinoline* or coarse book-muslin in our drapers' shops at home); cost about threepence per yard. A piece of this of sufficient length is taken and folded into a long bandage, having from sixteen to twenty-four thicknesses of the material, according to the requirement of the special case, and varying in width from two to three fingers' breadth. It is desirable, the folds being so numerous, that a loose thread tacking should be run along the free edges, to preserve the shape of the bandage and provide against unfolding.

Before proceeding further, the bandage should be soaked for a few minutes in water, so as to remove the stiffening or glaze which is liberally introduced in the process of manufacture of the material.

The plaster-of-Paris should be mixed with water (an equal bulk of each seems to be the most satisfactory proportion), in a large, rather shallow, bowl. As the mixing proceeds, the finely powdered plaster should be dredged on the surface of the water until it is exhausted. A mixture of creamy consistence will be the result.

Into this mixture the bandage, prepared as above, must be placed, and quietly moulded or kneaded, so that every part of it may be thoroughly permeated with the compound. It may be very loosely rolled up from each end towards the centre, for convenience of using; but there must be no attempt at compression or squeezing of the rolls as

* Shown to the Midland Branch.

this is done. The desideratum is to have a bandage of very definite thickness, thoroughly and equally saturated with liquid plaster.

It will render the further description more easy, if the reader will think of the bandage thus prepared as affording, at the pleasure of the surgeon, either a narrow but thick band, or, when opened out by removal of the basting thread, a flattened, much wider, or expanded portion.

The narrower portion of the bandage permits application in simple ring or in figure-of-8 fashion around the terminal part of the fractured limb; and the wider expanded portion, carried upwards on the sides of the limb, furnishes a perfectly firm and well-moulded support to the injured part. A layer of wadding may be placed round the limb, so as to secure any projecting point from undue pressure, before the bandage is applied; or most commonly it will be found sufficient to rub the limb over with a fairly thick coating of oil or simple ointment. The plaster bandage will then not adhere to the skin.

I will speak first of the mode of application in simple fractures of the forearm. The arm, as is usual, must be placed in position between pronation and supination, and extension must be kept up so as to maintain the fractured ends of the bones in their proper relation one to the other. The middle of the bandage is applied to the front of, and then round, the wrist-joint. A ring is formed in this way, embracing firmly the lower end of the radius. One end of the bandage is now carried from behind between the thumb and finger, and downwards in its expanded portion over the anterior face of the forearm; while the other half of the bandage is taken directly from the ring over the wrist upwards over the posterior surface of the forearm.

Two long but narrow and rather strong bits of wood are now applied, one on each face of the forearm, with tolerable firmness; and a few turns of tarlatan bandage, *without plaster*, must be applied over these, to keep the whole framework in place until the drying and hardening of the plaster be fully completed. The advantage from these temporary wooden splints is, that the middle portion in length of each expanded portion is thus bent inwards, so as to correspond to the normal interval between the radius and ulna.

If there be simple fracture through the carpal end of the radius, the encircling ring is placed round the hand over the metacarpo-phalangeal joints; and the moulding of the wider portions of the bandage is commenced almost at once, so as to give support to the point of injury.

When the plaster is perfectly firm, the outer encircling bandage and the wooden splints are removed. A simple tie, elastic or other, will then suffice, if placed round the arm not far from the elbow, to keep the plaster framework in close apposition to the limb.

If simple fracture of the fibula, or of the tibia and fibula, transverse and without tendency to displacement, be in question, the bandage, prepared as above, is at once put on. The middle and narrow portion of the bandage is placed to correspond with the lower third of the leg posteriorly; the ends are brought round in front, and a complete close-fitting ring is so made; then they are brought down, each one over the corresponding malleolus, and crossed beneath the foot; finishing, finally, by the close application of the expanded portions, one on each side of the limb, nearly or quite up to the head of the tibia.

The best rule for the width of these expanded portions seems to be that, in the midline, both anteriorly and posteriorly, a vacant space of two fingers' breadth should be left between the corresponding edges of the plaster bandage.

Should the fracture of the leg be oblique, with more or less of riding and displacement, an ingenious adaptation of the plaster bandage is employed. To the leg itself a plaster bandage, as above named, is applied, with this variation only, that, before the crossing of the narrow portion is made beneath the foot, a roll of bandage is placed in close contact with the sole, and over this the crossing is managed. When the plaster has set, the bandage is taken away, and a projecting yet quite firm stirrup is left beyond the foot. This plaster bandage, so-called "extenseur", is covered with a layer of oil or simple ointment, and then an outside framework is arranged.

A long bandage is taken, soaked in plaster as directed. Between the layers a short piece of wood is slipped, to make an outer stirrup about three inches below that attached to the leg. The bandage is carried up outside the leg on each side to a point above the knee, and each side-prolongation is stiffened by the insertion of a piece of wood of the required length. The ends of the bandage are wound round the lower third of the thigh, so forming a complete ring, and enclosing the upper ends of the lateral wooden supports. This application is known as the "contre-extenseur".

The coating of oil or grease prevents any adhesion of the two bandages at the points where they are in contact. To complete the fixing, when the plaster shall have thoroughly set, the two stirrups, superior or foot attachment, and the inferior or outer framework, are tied together

by a band of strong elastic. The extension so obtained will maintain the fractured ends of tibia and fibula in their proper place.

M. Dumont has applied plaster bandages on the above principles to cases of morbus coxarius; to fractures of the thigh, leg, and arm, simple and compound; and to cases of joint-disease when extension or absolute fixation is desirable, with an unvarying good result. As yet, beyond notices in the local medical journals, the only publication which treats at length of this method appears to be a published thesis, *Du Plâtre en Chirurgie*, by Dr. Cyrille Droulon, published by M. A. Parent, Paris, 1880.

When at Caen, I saw the application of this plaster to a case of disease of carpal bones in a child; several cases of fracture of the carpal end of the radius, in each one of which, I may remark in passing, the movement of the fingers was from the first day perfectly free, complete, and unrestrained; a simple fracture of both tibia and fibula; and a case of extensive caries of the tarsal and metatarsal bones, which had been safely conducted to a good firm ankylosis, with perfect repair of several old sinuses. Since my return home, I have applied the plaster in four cases, all still under treatment; viz., fracture of the tibia and fibula, not quite firm, fragment of imbedded necrosed bone still remaining; talipes varus, sometime after division of tendons; carious disease of the lower end of the tibia, where, after free gouging, some fragments still remained; and chronic hydrarthrosis of the right knee-joint, where complete apparatus, extension, and counter-extension seem to promise well.

The especial advantages which may fairly be claimed for this mode of using plaster-of-Paris may, I think, thus be summed up. There is no covering up of the fracture or injured joint. The support, with proper care in the application, is abundantly firm from the first moment; secondary displacement, even with a restless patient, is impossible. The materials are inexpensive, and not difficult of use. The need for complicated apparatus in the treatment of the majority of fractures is done away with; and the comfort and convenience, especially to those of us who practise in the country, will, I believe, be found to be very great.

I would only add that I am very sensible of the difficulty of putting into print an accurate and reliable description of the mode in question; but I shall be very glad to make the details as clear as I can (with the aid of some rude sketches) to any one who may think well to favour me with a letter of inquiry. I am but endeavouring to bring into notice an improvement which is wholly due to the careful inquiries of one of our profession—the genial and courteous surgical professor at the Hôtel-Dieu of Caen.

DUPUYTREN'S CONTRACTION OF THE FINGERS.

By A. S. MYRTLE, M.D., Harrogate.

THE following remarks are based on a long personal acquaintance with this deformity, as well as considerable professional experience. These contractions are very common, and cause much inconvenience. The subject of them cannot wash himself with comfort; wear gloves; shake hands; carry stick or umbrella; take hold of anything; or enter into many most desirable games like his neighbours, or on equal terms, if he makes the attempt. If medical, he finds great difficulty in making certain physical examinations, and in the performance of many surgical operations. This is particularly the case with the accoucheur, whose crooked fingers are always in his way; and, in *turning*, for instance, prove a source of acute suffering to himself, as well as to his patient. Such being the case, it is almost incredible that an affection so frequently met with, even among medical men, involving so many inconveniences, should have been so thoroughly misunderstood—so utterly neglected by the profession at large. For above thirty years, I have asked the advice of physicians and surgeons in my own case—men of the greatest repute, and I have met with scores of fellow-sufferers who have done the same in their cases, with the following result. Dr. A. examines the fingers most thoughtfully, and gives his opinion: "Ah, I fear nothing can be done, leave your fingers alone, I would not meddle with them"; or, "I see, gout; you know what to do as well as I can tell you: soak your hand in a solution of carbonate of soda, take a course of iodide of potassium, and drink Vichy water". "Do not allow any operation; you know Syme's opinion about that: worse than useless. Nothing but accidental and forcible rupture ever did good in such a case". Surgeon B. advises you to grin and bear it; and, if the fingers get very much more inconvenient, why, then, have them amputated. Now, this is no overdrawn description of the counsel we unfortunate cripples have received, and do receive, at the hands of our medical and surgical advisers; and it clearly shows that the profession