

Hospital, in Billet ward, under Mr. Cock, and came out cured. A year ago, he had rheumatism of the right arm; and six weeks before the late accident, he had had a severe attack in the left arm, now broken, which was treated with leeches, blisters, &c. All this does not appear in any way to have been likely to produce a predisposition to fracture; and even supposing that there might have been a diseased state of bone masked by the rheumatic symptoms, that supposition is quite done away with by the fact of the bone having perfectly united, without a single troublesome symptom, in the space of one month, the callus being distinctly felt around the part, and the man able to use his arm, showing that the bone is in a perfectly normal state. He expresses himself quite pleased with the accident, because he says he has been easy ever since from the rheumatic pains—rather a novel “modus curandi!” Being a strong, athletic man, anything like a tendency to mollities ossium is out of the question; and the small size of the piece of wood he was in the act of lifting when the fracture occurred, rendering the theory of violent muscular contraction also inapplicable, I am at a loss to account for the occurrence at all in a satisfactory manner, and I consider it a most rare and singular case of fracture.

Croydon, April, 1846.

ON THE OPERATION FOR STRABISMUS.

By F. H. BRETT, Esq., F.R.C.S., late Superintendent of the Eye Infirmary, Calcutta.

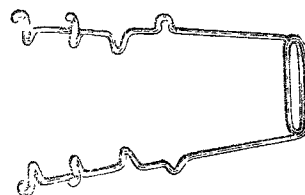
It is curious to trace the history of an operation. Stromeyer has undoubtedly the merit of suggesting, as Dieffenbach deserves that of first practising, this branch of tenotomy; but the germ of the idea may have been the following accident, which occurred to a Dr. Carron du Villards:—“En 1838, un homme, (à qui il donnait des soins pour une violente ophthalmie,) après qu’il eut reçu à la face un coup de fusil chargé à plomb, fut délivré par là d’un strabisme convergent de l’œil droit, qui datait de son enfance. Le globe était très proéminent, et enchassé dans une énorme bourrelet chemosique, dont l’incision donna issue à une grande quantité de sang. Le plomb (says M. du Villards) avait coupé quelques fibres des muscles obliques, donc la contraction brillait l’œil en dedans.”* Was it not rather the “incision” which occasioned the division of the internal rectus muscle? No shot could have cut clean through the rectus internus muscle; and if it had, as Dr. du Villards says, divided a “few fibres” of the superior and inferior oblique, that would not have cured the squint. But it is very possible, the incision made into the chemosed swelling (bourrelet) would have severed the internal rectus.

The success of this comparatively simple operation has been much vaunted, yet frequent observation convinces me it is not always successful. The reason of failure is sometimes owing to the superior and inferior fibres which coalesce with the superior and inferior recti not having been completely divided; and sometimes it is owing to inflammation and deposition of lymph, and subsequent contraction. According to my experience, the operation may be performed with almost invariable success. I shall therefore, from my own practice in India and in Europe, and from the methods of performing the operation which I have witnessed on the Continent, presume to offer a few practical suggestions, which will not, I trust, appear unworthy of attention. I believe the following rules to be of importance:—1st. To use always the scissors in preference to the knife and director, because by the former you can more readily divide every contiguous fibre, both above and below. To the practised hand, the point of the scissors grates along the hard fibrous sclerotic coat, and the operator is quite certain that he cuts every muscular fibre.—2ndly. Never to use the hook to claw out the eye, which has always appeared to me, to say the least, an unsightly instrument, and somewhat painful, but chiefly because it must be entrusted to the hands of an assistant, who, unless he possesses the delicate touch of an artist, and the steadiest hand, may rotate the eye not precisely in the horizontal line. If he gives the instrument the least obliquity, he disconcerts the operator in his search after the muscle which he has to divide, and he finds it either above or below where he expects it. 3rdly. The operator should have the lids and eyeball completely under his command; and this is effectually attained by the use of the speculum of Velpeau. The ordinary speculum often slips, and confuses, or obscures, the operation; so do the fingers. This cannot be the case with the speculum of the Professor of La

Charité. I have always operated with the scissors, and I have never met with an instance of the return of the squint; but I have never seen the inconveniences of that part of the duty which devolves on the assistants so happily obviated as by the mode I witnessed in Paris, adopted by Professor Velpeau.* I now proceed to describe the operation upon the principles by which we should be guided in all surgical operations—viz., with the least possible pain, the greatest facility and rapidity, in the safest, and in the most effectual manner.

The patient is placed before a clear light; the opposite eye is obscured; the head supported by an assistant; the lids separated by the elastic wire speculum, (blépha reirgon.)

FIG. 1.



The Elastic Speculum.

The surgeon, seated in front of the patient, seizes the conjunctiva, together with the attachment of the muscle itself, by means of the forceps, (fig. 2,) near its insertion into the

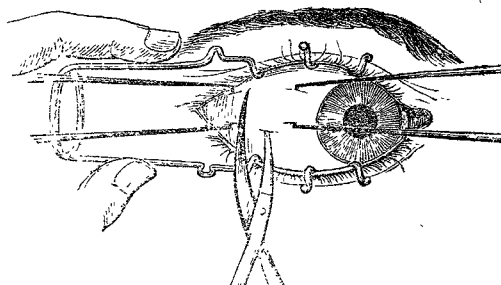
FIG. 2.



The Forceps.

sclerotic, about three lines from the margin of the cornea. This gives the surgeon complete control over the eye, and by it he is enabled to draw the eye outward. Immediately after this, the surgeon grasps the belly of the muscle with a second pair of forceps of the same description, (fig. 3.) This

FIG. 3.



Brett's Operation for Strabismus.

latter is entrusted to an assistant. The muscle is thus raised and stretched between the two pair of forceps. The section of the muscle between the two points of transfixion is now an instantaneous affair. The smooth and bluish-white sclerotica shines beneath the incision, and the operator satisfies himself that every fibre is divided, carrying the scissors above and below until the cornea assumes its central position, and the patient can turn the eye to the opposite side, yet is unable, by any effort, to squint. Finally, the tendinous edge of the muscle, grasped by the first pair of forceps, together with some loose portions of conjunctiva, is excised by a stroke of the scissors. This last procedure prevents a very common occurrence—viz., a fungoid granulation, formed from the ragged edge of the tendinous extremity of the muscle and some cellular tissue beneath the conjunctiva.† The eye is cleansed from blood by syringing with cold water.

After-treatment.—Obscure the opposite eye for some days. Let the patient use the eye which has been operated on in a moderate light. This prevents adhesion and contraction, which might cause a return of the squint.

I have assumed the surgeon to be ambidexter; but the ope-

* Imaginé par Snowden, modifié par Velpeau.

† I am glad to find the Professor of La Charité confirm my experience of the superiority of the scissors in simplifying the operation. His words are—“Ce procédé, d’une extrême simplicité, d’une certitude que je n’ai retrouvée dans aucun autre, offre d’ailleurs toute facilité, toute liberté pour opérer à droite, à gauche, en dedans, en dehors, en haut, en bas, pour diviser les tissus dans un aussi petit espace et dans une aussi grande étendue qu’on peut le désirer, que les circonstances peuvent l’exiger.”

rator can accommodate his mode of procedure to his own habits and facilities.

Fig. 3 shows the operation, which ought not to occupy one minute. The eye should be frequently bathed with cold spring water, or a weak solution of lead. A weak astringent lotion of alum may be used on the third or fourth day. All bodily exercise should be suspended for two or three days, as well as exposure to damp, currents of air, and a brilliant light. Moderate, but not a rigorous diet, is enjoined.

The post-mortem investigations of M. Bouvoir and others afford some explanation of the mode in which the divided muscle recovers its power. "A girl, of twelve years of age, affected with strabismus convergens of the right eye, underwent the operation for strabismus on the 21st Jan., 1841. The result was quite successful. In December, 1842, she died of a tuberculous affection. The following was the result of the autopsy.* Both eyes were preserved with care, so as to compare the one with the other. The divided muscle had contracted a new and solid tendinous adherence to the globe of the eye. This tendon was fixed to the sclerotic at nine millimetres' distance from the cornea, whilst the distance was only seven millimetres from the muscle which had not been operated on. Moreover, in the latter, the fleshy fibres were gradually lost in the substance of the tendon, and were still perceptible at three millimetres from the insertion of the sclerotic, whilst, in the other, they suddenly ceased at the distance of eleven millimetres. This long tendon has no appearance of muscularity whatever. The tendon is therefore newly organized after the operation, and is fixed on the globe behind the primitive insertion, which has disappeared." It is reasonable to infer that the antagonist muscle is generally more or less paralyzed. The diminished power which a shorter lever affords is conceivably adequate to counterbalance the feeble undivided muscle. We must not forget the harmonic action of a set of muscles. The three remaining recti diverge from their origin at the back of the orbit obliquely forward and outward, and, with the superior and inferior oblique, balance the eye in its proper axis. In cases of double squint, complete equilibrium is not restored until both eyes have undergone the operation, which is properly accomplished at intervals of a few days. This is explained by sympathy.

Dorset-street, Portman-square.

ADDITIONAL REMARKS ON

PROFESSOR SEUTIN'S STARCH BANDAGE,

MORE PARTICULARLY IN REFERENCE TO A "CERTAIN MODIFICATION" OF IT.

By ALFRED MARKWICK, Esq., Surgeon, London.

If I have been guilty of leaving a blank in my paper "On the Use of the Starch Bandage in the Treatment of Fractures," (published in THE LANCET for February 28th,) in consequence of not having alluded to Mr. Christophers' "modification," I fear I shall be considered equally culpable by MM. Velpeau, Mayor, Laugier, Lafarguede, St. Emilion, and Van Meerbeck, for having taken no notice of theirs.

My communication was intended to point out the importance and advantages of Professor Seutin's bandage, and his alone, in the treatment of fractures, believing as I do, that all modifications of it, or additions to it, are both useless and unnecessary, and open to far more weighty objections than have at any time been raised against the original. It will not be necessary for me to substantiate this statement, inasmuch as Mr. Christophers has himself already done so in that portion of his paper taken from Dr. Pigeolet's "Esquisse Historique sur le Bandage Amidonné."†

It is true, no objection has been raised, either by Professor Seutin or Dr. Pigeolet, to Mr. Christophers' "Indian-rubber straps," and therefore I ought, perhaps, in this gentleman's opinion, to have made some allusion to them. I would have gladly done so, had I considered that they were in any way essential or indispensable to the construction of the bandage amidonné. Had they been so, M. Seutin would have been the first to immediately avail himself of them. Now I can confidently assert, that during the whole time I was in attendance at the Hôpital St. Pierre, at Brussels, I never once witnessed their application, and I may refer, for confirmation of this fact, to Professor Seutin's writings subsequent to the

publication of Mr. King's paper in the *Medical Gazette*,† in which Mr. Christophers' "modification" is made known, for in these we find that no mention whatever is made of them. I may, however, for this gentleman's satisfaction, quote the following paragraph from Dr. A. Didot's article in the *Abeille Médicale* for July, 1844, p. 155: Et je dois avouer que je ne vois pas le moindre inconvénient à ce que leurs idées, (those of Messrs. King and Christophers,) soient adoptées dans le traitement des fractures lorsque l'opportunité se présentera. But this does not show that the "straps" are an indispensable addition to the perfection of the bandage in question; and I can but think that, had they been of that importance, Dr. Pigeolet would have done more than merely mention them. He would undoubtedly have characterized them as a valuable innovation, free from objection, and would have recommended them as an effectual means for remedying a defect which the starch bandage certainly (but for a very short time only) possesses.

These "straps" are intended to enable the apparatus to adapt itself to all the variations in size which the injured limb is liable to undergo. But it appears to me, that in employing them, we avoid Scylla to fall into Charybdis, as I shall by-and-by attempt to prove. And, moreover, we possess more effectual means (those recommended by Professor Seutin himself) for obviating the evil.

In his reply to the following objection to his bandage, made by M. Mayor—namely, that "it forms a case so resisting that it can neither dilate nor contract on the limb during its alteration in volume," Dr. Seutin says, (p. 195, *loc. cit.*) "How is it, that after all I have said, in order to show that the starch bandage is remarkably *dilatable*, and that it may be *drawn in* at pleasure,—that after having proved that its application permitted of the parts being daily inspected with the utmost facility, when such an inspection became necessary,—how is it, I say, that, after all this, my bandage is represented as a kind of case which must invincibly preserve its primitive form, without being able to adapt itself to the development or the diminution in size of the contained organs? I can only account for this singular circumstance by admitting that M. Mayor has not read the different memoirs which I have published on my method of treating fractures, and by afterwards supposing that the cases he has seen have given him a false idea of the true principles by which my invention has been directed." * * * * "If an apparatus would permit us to constantly maintain the fragments in the same position, from the commencement to the end of the treatment, and is also capable of being tightened or slackened, and will enable us at the same time to inspect the soft parts, and apply to them such remedies as their condition may require,—if, I say, an apparatus permits all this, we shall then be at liberty to state, that it fulfils all the indications that are furnished by sound therapeutical notions on the subject of fractures." "These are precisely the qualities by which my bandage is distinguished." At pages 141 and 142 of the same work, he says, "One of the greatest advantages of my starch bandage, and one which decidedly distinguishes it from the apparatus of the French surgeon, (alluding to Larrey,) consists, then, in my opinion, in the facility one has, notwithstanding its employment, for following step by step, as it were, the progress of the injuries of the soft parts, without the coaptation in the least degree suffering. Strong scissors, which I have had constructed expressly for this purpose, enable me to cut, without difficulty, the anterior surface of the apparatus, which, for this reason, I take care to render of as little thickness as possible. I thus obviate the defects of slight compression, if it is badly exercised; I suppress it if it appears to augment the local stupor, or if it cannot overcome the violent reaction which ensues; on the contrary, I continue it, if I find, on inspecting the limb, that the patient's complaints arise either from his pusillanimity or apprehension. If local therapeutic remedies are thought necessary, I make use of them, and then, in some cases, apply a piece of linen on the internal surface of the apparatus in order to prevent it from being soiled by the applications employed; I afterwards bring the two valves together by means of an unstarched roller. By removing this every day, the dressings can be applied as often as it is thought necessary." * * * "When the incision is made, and the limb is found to require no topical application, the two valves are united by means of

* Translated from Duval, "Chirurgie Oculaire."

† See Seutin's work, "Du Bandage Amidonné."

† Had I not been acquainted with this paper, I might have experienced considerable difficulty in finding it, as Mr. Christophers has referred me to the *Medical Gazette* for February, 1839. The fact is, the mistake has arisen in consequence of this gentleman having unfortunately translated the words, *Gazette Médicale*, in which journal Mr. King's article was noticed at the date mentioned. The original may be found in the *London Medical Gazette* for August 11, 1838.