bably be less than that which accompanies a large irreducible scrotal hernia.

The extra-opening into the abdominal cavity is not attended by much more danger, if the operation be performed with strict antiseptic precautions; and the risks attendant upon it are, I think, not greater than those which accompany the leaving of the bowel unreduced in the sac, or the attempt to forcibly reduce it by dividing or tearing through old adhesions, when exceptionally dense and firm.

NOTE ON CHOLECYSTOTOMY.

Read before the Pathological and Clinical Section of the Birmingham and Midland Counties Branch.

By LAWSON TAIT, F. R. C. S.,

Surgeon to the Birmingham and Midland Hospital for Women.

THE performance of this operation has now been so frequently successful in various parts of the world, that I think we may take it as an established addition to surgical procedure. I have been written to by many practitioners, asking for a list of the cases which I have performed, and I therefore desire to publish them, in order to save the necessity in future of furnishing each of my correspondents with manuscript references.

[Here Mr. Tait gives a Table, the particulars of which, with the exception of the case related below, are contained in Mr. J. W. Taylor's Table, published at page 221 of the JOURNAL of January 31st.]

The only addition to the literature of the subject, which requires present notice, is a recent paper by Dr. G. McF. Gaston of Atlanta, Georgia, which has been sent to me by its author. It was printed in Gaillard's *Medical Journal* for October, 1884; and the editor proposes that the proceeding advocated by Dr. Gaston should, in future, be known as Gaston's operation. Briefly, it consists of making a communication between the gall-bladder and the duodenum. The paper in which the proposal is made is so indefinite, and contains such singular views of the anatomy and physiology of the organs concerned, that it is quite possible I do not understand the full merits of the proceeding. Dr. Gaston's operations were limited to five dogs, upon two of whom the results were eminently unsatisfactory; and it is perfectly certain that the proceedings, which he recommends for dogs, could not possibly be applied to the human being. I can see no advantage in the establishment of a circular canal passing through the duodenum and the gall-bladder; and I think that, in all probability, the ring so formed would be a very convenient trap for knuckles of intestine.

The operation of Marion Sims restores the gall-bladder to its normal function, whilst that of Gaston certainly never could. In the event of the recurrence of the disease, whether it be suppurative or the formation of gall-stones in the bladder, a small incision will enable us to reach the bladder on the second occasion without opening the peritoneum; but the whole trouble would have to be gone over again, from the first step to the last, with additional complications, if Gaston's operation had been performed; and, from my experience of artificially made fistulous openings, I do not think the chances would be very great in favour of the artificial communication remaining long open between the gall-bladder and the duodenum. Another difficulty would be that the contraction might, in process of time, form a stricture of the duodenum, so that I cannot, in face of all these considerations, see my way to give Dr. Gaston the credit for his suggestion which he evidently thinks I ought to award him.

In addition to this proposal of Dr. Gaston, I have had a large number of suggestions communicated to me from various sources, all of which I have carefully considered without having seen my way to recommend any of them as an addition to the original proposal of Marion Sims, the only practical addition to which consists in crushing the stones outside the duct by means of forceps, as already published in this JOURNAL, May 8th, 1884. The case there narrated has had a perfectly successful result, for Mr. Forty, of Wotton-under-Edge, under whose observation the patient is, tells me that the fistula has been completely closed for nearly five months, and that she is in perfect health.

I have now to add a fourteenth case of the operation for gall-stone, in which this plan of crushing the stone outside the duct had to be employed, the fragments being removed by the ordinary apertures in the bladder—a sort of combined lithotomy and lithotripsy, by which one of the chief difficulties of the operation was easily and successfully overcome.

I saw Mrs. W., aged 50, in consultation with Mr. Littlewood, of Walsall, on January 6th. The patient was then haggard in expres-

sion, her face denoting protracted suffering. She had been in bed for many months, suffering from constant pain in the region of the liver, with symptoms of gastric disturbance and general *malaise*. She had been practically an invalid for five years. Mr. Littlewood had discovered a tumour below the liver; it was firm and elastic, and could be moved, latterly, in almost any direction, and to some considerable distance over to the left of the middle line; it varied from time to time in size, and sometimes could not be discovered at all. She suffered from violent exacerbations of pain, which Mr. Littlewood regarded as due to the spasmodic contraction of a distended gall-bladder, the duct of which was blocked by a calculus. I entirely agreed with his view, and we both advised the patient to submit to a surgical operation, and to our advice she yielded a ready consent.

On January 13th, I made an incision, about three inches long, over the notch of the liver, and came at once upon a distended gall-bladder. This I emptied through an aspirator needle, and made an incision into the bladder at its base. I found in the neck of the bladder a large rough calculus, which was easily removed; but, beyond this, in a saccular expansion of the cystic duct, I could just touch another calculus, upon which I could not get my forceps to act from within the bladder. Keeping the forefinger of my left hand inside the gall-bladder as a guide, I passed my forceps into the peritoneal cavity, and grasped the calculus through the walls of the duct, gave it a smart squeeze, and easily broke it into small pieces, all of which I carefully removed with a scoop. I then stitched the wound of the gall-bladder to the wound of the abdominal walls in the ordinary way, and put a gum drainage-tube into the gall-bladder.

On January 16th, bile began to flow freely through the wound, but it has now entirely ceased, as the wound is quite closed. The drainage-tube was removed on the 18th, and the stitches were taken out on the 21st. The patient got up on the 29th, and returned home on February 5th.

SEVENTY CASES OF DUPUYTREN'S CONTRACTION OF THE PALMAR FASCIA.¹

By NOBLE SMITH, F.R.C.S. Ed.,

Surgeon to the All Saints' Children's Hospital, and Surgeon to the Orthopaedic Department of the Farringdon Dispensary.

THE contraction of the fingers in these cases is now well known to be due, as Baron Dupuytren first pointed out, to induration, thickening and contraction of the palmar fascia, the tendons and other structures remaining in a perfectly normal condition.

The truth of this view of the pathology of these cases has been abundantly proved by dissection in the dead, and by examination and operation in the living. A simple way to demonstrate the fact that the resistant cords which may be present are not tendons, is to place a finger upon the palm, while the patient brings the flexors into action by closing his hand against some resistance. If the cord were a tendon, such action would increase its tenseness, whereas the band of fascia will be thus relaxed.

Without entering into further details of description of this affection, which are well known, I propose to discuss several points which appear to me to be of chief interest, and upon which my researches enable me, I believe, to throw some new light.

Through the courtesy of Dr. Rayner, medical officer to the Marylebone Workhouse; Dr. Yarrow, of the City Road Workhouse; and of Dr. Dunlop, of the St. Pancras Workhouse, I have been enabled to examine 700 elderly inmates of those institutions, among whom I have found 70 cases of Dupuytren's contraction (in 15 of which, however, the fingers were not bent). The points to which I have chiefly directed my attention, are,

1. The supposed immunity of females from the affection;
2. The cause of the malady;
3. Its treatment.

Modern writers have stated that contraction of the palmar fascia is only found in men. This statement is incorrect, for, out of 444 women examined, I found 11 cases of well-marked Dupuytren's contraction, and 15 cases of indurated, thickened, and contracted fascia alone.

I may here remark that, amongst the individuals examined, I found many cases of various kinds of deformed and contracted fingers; some from gout, some from rheumatism; also some of those congenital cases in which the joints and the tissues in the immediate neighbourhood of the joints are at fault. These congenital cases have occasionally been set down wrongly as Dupuytren's contraction, and I

¹ Read before the Medical and Chirurgical Society, March 25th, 1884.

therefore take this opportunity of remarking that I have been careful not to fall into this error.

I have made sketches of some of the undoubted cases of this contraction in women, which I now show you. (Figs. 1 to 7 inclusive.)

Fig. 1.

Fig. 2.

The next point which I propose to discuss is, the cause of this disease.

Many modern writers have considered the affection to be the result of gout, a fate which has befallen many other obscure, and perhaps more serious affections. It has also been thought to be rheumatic.

Fig. 3.

Fig. 4.

Fig. 5.

Fig. 6.

Fig. 7.

My researches go far towards showing that it has nothing whatever to do with either gout or rheumatism. Of the eleven women above mentioned, two had had a good deal of rheumatism, three said they

had suffered from it, one would only acknowledge to having had it very slightly, and the other five had never had any rheumatism at all. None of them had had gout. Of the 44 men, 8 said they had suffered much from rheumatism, 1 had had it moderately, 9 had had very little indeed, 2 acknowledged to rheumatic gout, 3 only had suffered from gout, and one of these had only had slight attacks, but as many as 19 denied having suffered from either gout or rheumatism.

When we consider how common a complaint rheumatism is, we should not expect to find many of the old inmates of a workhouse who are not occasionally sufferers from this affection; so that the above figures may, I think, be considered (as I have considered them) as tending to disprove any association between Dupuytren's contraction and rheumatism. The fact that three only had suffered from gout may be considered by some to prove nothing, as they will probably say that in the other cases gout was expending itself on the fascia, or some similar statement; but such opinions will be of no evidence, and I venture to consider it shows that Dupuytren's contraction is not due to the gouty diathesis.

Moreover, among the gouty subjects of these workhouses, and there were many of them, I noticed that the hands were peculiarly soft, totally different from the hands of those affected with contracted fascia.

From my inquiries, I could discover no special *general condition* of health which might have given rise to the disease. In fact, the affected individuals, both male and female, seemed nearly all healthy and tolerably robust. They were mostly old people, the average of their ages being 73; forty-one were over 70, and twelve of these were over 80. Their own ideas about the origin of the contraction were generally rather vague; but some particular kind of work was credited by many of them with having been the cause. Thus, among the women, using a hammer, holding the board in washing, pulling the handle of a beer-engine, and general hard work, were mentioned; among the men: wheeling heavy loads in a barrow; using a brush to dress horses; carrying a hod; using a chopper; using pliers in wire-work; using a hammer; using a spade; using an awl; blacksmiths' work; painters' work; plasterers' work; using a pick and shovel; driving; joiners' work; rubbing a copper plate in printing; coach-painting; turning the draw-winch in piano-making; and others attributed the contraction to general hard work.

Thus evidence regarding the former occupations of the individuals affords us very little information concerning the cause; but the much greater frequency with which the right hand suffers leads one to suppose that *use* has a material influence. Thus, in 20 cases, the right hand alone was affected; in 8 cases, both hands suffered, but the right hand chiefly. In 4 cases, the fingers were contracted in the right hand, and the fascia only in the left. Both hands were about equally bad in 15 cases; the left hand alone in 3 only; both, with the left chiefly, in 2 only; the left fingers contracted, and fascia alone in the right hand, in one case only. Thus, when one hand alone was contracted, we have 20 right hands to only 3 lefts. So, to sum up the whole, we have 32 cases out of 55 in which the right hand suffers chiefly.

Fig. 8.

In the cases of fascia-contraction, without the fingers being bent, we find a more equal result, for, in eleven cases, both hands were involved. In two cases, the right only, and in two cases the left only. With regard to individual fingers, the ring-finger was most commonly contracted. It occurred twenty-nine times; the little finger fourteen times; the ring and little fingers eleven times; the little, ring, middle,

and index, three times; the ring and middle once; the little and index once; the little, middle, and index once.

With regard to the question of pressure as a cause, we must remark that, in some cases, no such influence seems to have existed. Case 59 is a good example. This was a very intelligent man, aged 75; the figure (Fig. 8) shows the extent of contraction in the two hands. He was a cabinet-maker up to 30 years of age, when he became a teacher in a school, and has never done any manual work since. The contraction began when he was 55 years old, without any apparent cause, unless it were rheumatism, from which he had suffered much all his life, or rheumatic fever, with which he was laid up about the time the contraction began. The deformity has increased gradually up to the present time. His general health is good.

Of course, the majority of the inmates of workhouses have done hard work, so that it was not to be expected that one should find many such cases as this one, but other instances have been recorded of this affection occurring in people who have never done hard work.

Case 50 has some bearing upon this point, for the left hand alone was contracted, as shown in the figure (Fig. 9); although the man, who had been a sawyer, said he had always used his right hand most.

Fig. 9.

The large proportion of cases in which both hands were affected seems to indicate something more than a local cause. If we include the cases of induration and contraction of fascia in which the fingers were not bent—and I know of no reason for not doing so—we find both hands affected in 41 cases of the 70. What general cause can have thus influenced the hands symmetrically, it is difficult to determine, but there is one condition which may perhaps indicate some nerve-irritation. I refer to contraction of the palmaris longus muscle. In the last 45 cases which I saw, I examined the tendon of this muscle, and found it tense and prominent in nearly every case (in two or three individuals whose wrists were thick and fat, it was not apparent).

Fig. 10.

Perhaps contraction of this muscle may be the first morbid condition, and by its constant action irritate the fascia, and so cause it to thicken and contract. If this be so, such a process would not preclude the formation of the contraction in some cases by irritation of the fascia locally. In fact, it seems to me probable that in many cases local irritation produces contraction of the muscle first, and

subsequently helps to keep up the irritation of the fascia, and that in the other cases the contraction of the muscles is the original cause.

I have met with several cases which show that injury to the fascia will produce contraction identical with, or very similar to, Dupuytren's contraction.

Case 34 was that of a very intelligent man, aged 66, whose right hand alone was contracted, as shown (Fig. 10).

It began six years ago, while he was working in the Zoological Gardens, where he had been for several years. He injured his hand with a piece of iron, which entered at the back of the hand and penetrated to the fascia in the palm. From the appearance of the hand there seemed little doubt that the injury had caused the contraction, and the condition of the fascia, independently of the cicatrix, was almost exactly similar to that of the other cases.

In Case 51 (Fig. 11) the right little finger alone was contracted, it had existed five years, and was attributed to a cut with a piece of pipe, of which cut the scar remained, and the thickening surrounded the scar.

Fig. 11.

Several other cases were attributed to injuries, but in these cases there were no special reasons for accepting such explanation of the origin.

Treatment.—After troubling you with so many details of the conditions met with in these cases, I am able, I think, to offer a few practical suggestions with regard to treatment.

Forced extension of the fingers by means of mechanical apparatus has not proved very successful, and one might suppose that the irritation produced by such extension might give rise to increased disease of the contracted fascia.

Subcutaneous section of the fascia is the only operation which promises relief, but such relief has not always been permanent. Multiple incisions have been recommended, but I would urge the importance of making as few incisions as possible, because it is our object to separate the cut parts of the fascia sufficiently far to prevent reunion and re-contraction.

The permanent effect of division of a band of fascia in one place only was shown in Case 65. The figure (Fig. 12) shows the right hand.

Fig. 12.

The contraction had existed for twelve years, and the patient stated that, twenty years ago, the left little finger was nearly as bad, but that, while at work as a copper-plate printer, the band of fascia broke,

and the finger was released, and has never recontracted. The thickening of the fascia, and the depression where the pieces had separated, were very well defined.

Fig. 13.

If one, or at most two divisions, do not suffice to release the fingers, I would apply pressure to separate the cut ends, and postpone further operation for at least a few days.

Fig. 14.

Another plan can be followed with advantage in some cases. Division of the band of fascia diagonally, after separating the distal end from the skin; the object being to obtain union of the cut fascia in a lengthened position; but I prefer, when possible, to separate the ends entirely.

I think the contraction of the palmaris longus muscle demands more attention than it has hitherto received, and that, when tense, it should be divided. Possibly, in the early stages of Dupuytren's contraction, tenotomy of this muscle might stop the development of the disease, by lessening or removing the constant irritation of the palmar fascia.

I will conclude this paper by showing you sketches of a hand upon which I operated, on the principle of few incisions, one representing the contraction before operation, and the second showing the result of the incisions (Figs. 13 and 14). The result of the operation has been entirely satisfactory.

THERAPEUTIC MEMORANDA.

CUCAINE IN SKIN-DISEASES.

SINCE the value of new drugs is only to be estimated from records of the results obtained by them in practice, I think the following cases may be of interest.

A lady was affected with extensive eruption of lichen planus, accompanied by very severe irritation, which prevented sleep being obtained except by the aid of narcotics. All the usual local remedies were tried without benefit. A 4 per cent. solution of hydrochlorate of cucaïne was freely and repeatedly applied to and around the irritable spots, but no relief was experienced.

A lady suffering from severe eczema of the limbs of long standing, the affected parts being red, exuding, and partially denuded of epidermis. Most intense itching had long persisted, which none of the many measures tried had alleviated. An ointment of vaseline, containing 5 per cent. of hydrochlorate of cucaïne, was freely and frequently applied to the eruption, and rubbed in as firmly as the tender and inflamed condition of the skin permitted. Some slight diminution of the irritation followed.

For cucaïne to be of service for preventing skin-irritation, it seems to me that it should be dissolved in an oily or fatty substance, and the condition of parts should be such as to allow of its being firmly rubbed into the skin, so as to favour absorption.

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ASTHMA PRODUCED BY A LINSEED-POULTICE.

A FEW days ago, I was called in to see a female patient, aged 32, who was suffering great pain from an ulcer over the right tibia. The ulcer communicated with some superficial necrosis of the bone, but the patient had refused the surgical aid of several other practitioners, and now rejected mine also. In order to give her temporary relief, I ordered her to take half a grain of codeia, and to have a linseed-meal poultice applied over the ulcer. She strongly objected to the poultice, saying that, for the last four years, she had had an attack of asthma each time a linseed-poultice had been used. Not crediting this, I insisted on the poultice being put on. Three hours later, I was summoned to see her, as her sister thought she was dying. I found her livid, and struggling for breath, and certainly in as bad an attack of asthma as I ever saw. The offending poultice was removed, and the attack gradually subsided. This patient is not troubled by any other kind of poultice; in fact, she is really fond of oatmeal in this form. I have tried whether the dust of dry linseed-meal would induce an attack, but with negative results. If, however, a linseed-poultice be made near her, even though not for her use, she is at once threatened by a feeling of constriction of her chest. Another curious sequence in this case was the appearance of urticaria on the back, chest, and arms, and of a crop of herpes where the poultice had been.

As exciting causes of asthma, the dust of ipecacuanha, flax, scammony, oats, have all been known. Trousseau relates the case of a chemist who could not powder linseed without having a fit of asthma. In this case, however, the dust had no injurious effect; and I fancy the asthma was produced by the smell given off with the steam of the poultice.

GEO. C. KINGSBURY, M.A., M.D., Blackpool.

NOCTURNAL INCONTINENCE OF URINE CURED BY LARGE DOSES OF BELLADONNA.

KATE C., aged 7, a delicate child, whose legs were so curved by rachitic deformity that she was scarcely taller than an average child at 4 years, had been troubled with nocturnal incontinence since her