

On diseases of the rectum / by James Syme.

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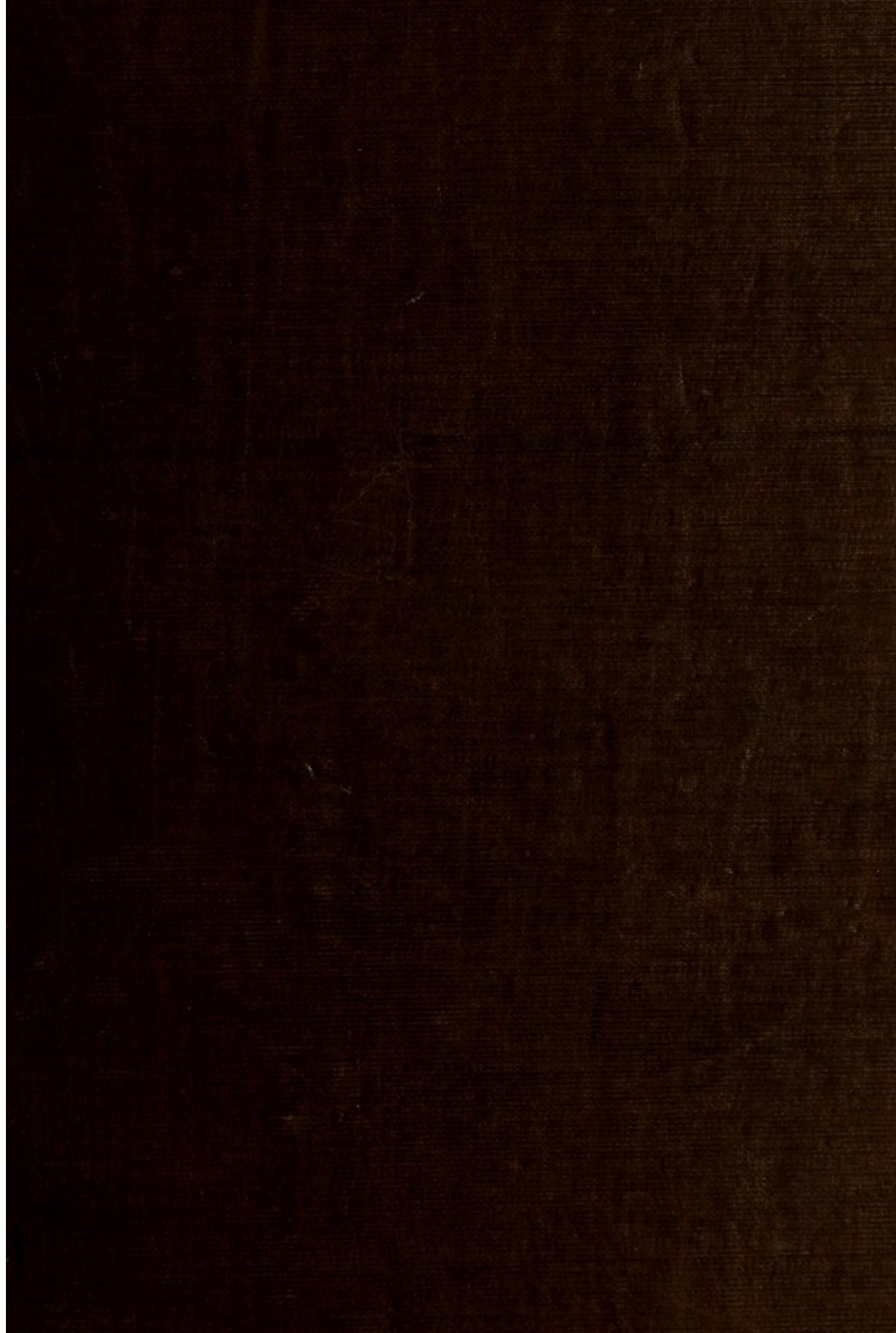
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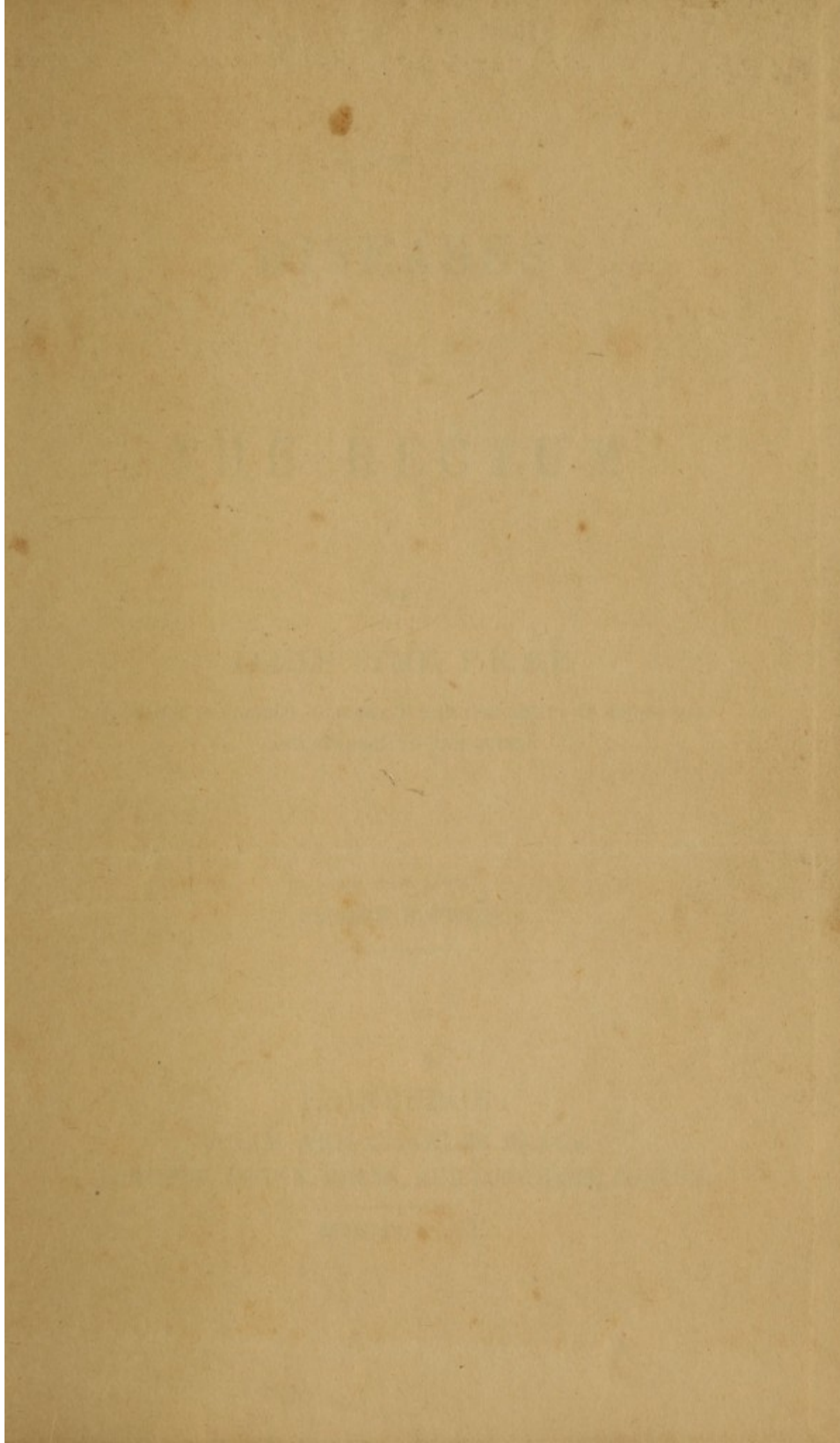
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ON
DISEASES
OF
THE RECTUM

BY
JAMES SYME, F.R.S.E.

PROFESSOR OF CLINICAL SURGERY IN THE UNIVERSITY OF EDINBURGH,
AND SURGEON TO THE QUEEN.

SECOND EDITION.

EDINBURGH:
ADAM AND CHARLES BLACK;
LONGMAN, BROWN, GREEN, AND LONGMANS, LONDON.

MDCCCXLVI.

W. Robeys

P R E F A C E
TO THE FIRST EDITION.

THE Diseases of the Rectum are very frequent in their occurrence, and derive additional interest, from the distressing symptoms which they occasion, as well as the relief of which they admit from the resources of surgical art. It may be added, that the mystery and concealment connected with their situation not only favour the deceptions of empirical practitioners, but also encourage the proceedings of wrong-headed operators, who prefer the most painful and dangerous means of treatment to those which are easy and safe.

On these accounts, it is desirable that this department of surgery should be thoroughly understood by the members of the profession, and that its leading principles should be placed prominently before them. The Diseases of the Rectum have accordingly been made the subject of many treatises expressly devoted

to their consideration, and it may seem unnecessary for me to increase the number of these productions. But the progress of modern pathology and surgical practice has introduced many improvements that have not yet been fairly brought together, and explained in their application to the management of those complaints which are at present more particularly in view. I have attempted to supply this defect; and, by a plain statement of the seat, nature, symptoms, and treatment of the different affections which are met with at the extremity of the rectum, endeavoured to assist practitioners in discharging their duty to the patient, and to protect patients against unprincipled or reckless practitioners.

It was not my wish to criticise the writers who have preceded me; and I have not done so except on one or two occasions, where it seemed necessary in order to explain my own meaning. From unwillingness to extend the limits of the treatise, I have not related detailed cases; but I may assure the reader that there is nothing stated which does not rest upon my own observation.

9 CHARLOTTE SQUARE,

November 1837.

P R E F A C E
TO THE SECOND EDITION.

IN preparing a new edition of this treatise, I have carefully reconsidered every statement which it contains, and compared the opinions formerly expressed with those which the additional experience of nine years' practice has led me to entertain. The result of this inquiry has been little substantial alteration, but some change of arrangement and expression, which I hope may render the meaning more distinct and intelligible. From circumstances frequently coming to my knowledge, it would appear that diseases of the rectum are still not treated universally on sound and rational principles. Many old-established practices and obstinate prejudices continue to obstruct the progress of improvement; and even a learned Reviewer has thought proper to declare his impenetrability to conviction in the following terms :*

* British and Foreign Medical Review, vol. v. p. 481.

“ Mr Syme states, ‘ that, however long the fistula may be permitted to continue, no more than one internal opening is formed.’ Now, with the strongest moral conviction that this opinion is incorrect, our practice has never afforded us an opportunity of verifying, by an examination after death, the impression which existed on our mind.” It thus appears that a prejudice, or what this gentleman chooses to call a “ moral conviction,” may resist the admission of truth, even when it is stated as matter of fact ascertained by observation. It would therefore be unreasonable to expect anything more than a gradual emancipation from the errors which have so long rendered diseases of the rectum an opprobrium to surgery and a fruitful field to empiricism. I have reason to believe that this little work has been of some service in promoting the accomplishment of an end so desirable—and if it shall continue to be so, the object of its production will be fully attained.

9 CHARLOTTE SQUARE,

August 1846.

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ON
DISEASES OF THE RECTUM.

CHAPTER FIRST.

FISTULA IN ANO.

IT is not very easy to understand how the disease named *Fistula in Ano* has become so well known to the public, and why the slight incision required for its remedy is still thought worthy of being performed in the theatre of a hospital. The mere frequency of the complaint, and the unpleasant nature of its symptoms, do not afford a satisfactory explanation ; while its hidden seat, and the disagreeable feelings connected with it, so far from favouring exposure, must tend to conceal the knowledge of its existence, as well as the means employed for its treatment. In these circumstances, the interest taken in fistula, both by the profession and by the public, can be ascribed only to the well ascertained fact, that the dis-

ease does not admit of remedy except from an operation, which was formerly one of great severity, and even considerable danger.

Louis XIV. suffered from *fistula in ano*, and, being unwilling to undergo the operation which his medical attendants assured him was necessary, listened to various proposals for curing the disease without having recourse to the knife. Instead of trying these methods on his own person, however, he collected a number of his subjects who laboured under the same infirmity, and caused the proposed experiments to be tried upon them. Some of them he dispatched to the waters of Barèges, others to those of Bourbon, and many more he shut up in rooms provided with everything that could be suggested in the way of treatment for the purpose in view. At the end of a year, finding that not a single patient had been cured, his Majesty yielded to necessity, and permitted his surgeon, M. Félix, to perform the incisions which he judged proper.

We have here a striking illustration of the necessity of the operation ; and the importance attributed to its performance, as formerly practised, may be estimated from the number of medical men who were present on this occasion, together with the amount of their remuneration. Besides the surgeon and as-

sistant-surgeon, there were two physicians, four apothecaries, and an apprentice, and the sum total of their fees amounted to L.14,700.*

The inefficacy of all remedial measures for curing fistula except the knife still remains unquestioned, unless by inaccurate observers or unprincipled empirics;† but the extent to which it must be employed is now happily ascertained to be greatly less than was formerly supposed, and, through progressive improvement, it has been at length circumscribed within such narrow limits as hardly to deserve the serious title of an operation. In order to trace the steps which led to this important result, and to understand the true principles of treatment which have been finally established, we must consider the origin of fistula, the causes that give rise to it, the symptoms attending it, and the circumstances which impede its spontaneous cure.

* M. Félix, 50,000 Crowns = L.6000.

Dr Daquin, 100,000 Livres = L.4000.

Dr Fagon, 24,000 do. = L.1000.

M. Bessière, 40,000 do. = L.1500.

Four Apothecaries, (each 12,000 do. = L.500) L.2000.

M. Raye (apprentice to M. Félix), 400 Pistoles = L.200.

Dionis, Course of Surgical Operations, p. 228.

† Some of the latter who advertise their ability to cure fistula without cutting, accomplish the object through employing ligatures of silver or lead wire, by a tedious and irksome process.

Origin of Fistula in Ano.

In the first place, a collection of matter is formed under the integuments of the hip near the anus, and usually to one side of it. This deposit sometimes occurs quickly, with heat, redness, and pain of the part, at other times slowly and insidiously, without any sign of inflammatory action, so that the first circumstance which attracts attention is a flat and ill-defined swelling that results from the presence of the fluid, together with thickening of the adjacent cellular substance. In whichever of these ways the abscess is formed,—and every variety is met with, from the rapidity of a few hours to the slowness of as many months,—the matter, if permitted to remain, sooner or later, by inducing absorption of the neighbouring textures, makes a way for itself to the surface. As it is situated between the skin of the hip and the mucous coat of the rectum, evacuation may be effected through either the one or the other of these coverings. But in conformity with the general law as to progressive absorption occasioned by the pressure of matters foreign to the healthy constitution of the body, the contents of the abscess by far most frequently escape by an aperture through the external integument. This opening is usually very small, often hardly perceptible; and if the cavity be ex-

amined after its contents have been discharged, the mucous membrane will be found completely denuded, to more or less extent, at the distance of an inch or a little farther from the anus. As the matter, in order to get into this situation would, if originally deposited externally to the sphincter, have to penetrate between the muscular fibres, its formation probably takes place in connection with the inner coat of the bowel, whence it proceeds outwards, overcoming the obstacles opposed to its progress in this direction, instead of pursuing an inward course, in opposition to the general tendency which leads to the external surface of the body.

If the patient has been previously in pain he feels comparatively well after the matter is evacuated, and may suppose that he is to recover without any farther trouble. But the cavity of the abscess, though it contracts, does not become obliterated; the discharge continues of a thin and watery consistence; and the orifice acquires a still greater degree of straitness, at the same time generally projecting from the surface of the skin in the form of a small pimple-like protuberance, at the summit of which it is situated. This appearance is owing to an effusion of organizable matter round the opening, in consequence of the continued irritation which is caused by

the discharge passing through it. From the same cause the sides of the sinus acquire an increase of thickness and density, so as to assume the condition which in surgical language is designated fistulous. If the disease be still permitted to pursue its course unchecked, a small aperture is sooner or later formed also through the thin denuded part of the mucous membrane of the rectum. It may seem surprising that this second opening should be formed after the matter has procured vent elsewhere; but there can be no doubt as to the fact, and it agrees completely with what is observed to happen in the case of abscesses situated in the neighbourhood of the urethra, which, after their evacuation, whether spontaneous or artificial, often discharge purulent matter alone for a time, and then urine also. The true explanation in both cases probably is, that the matter, from not escaping with perfect freedom, accumulates in the cavity, so as to cause sufficient pressure for inducing ulceration of the denuded membrane. It is very seldom that a fistula of more than two months' standing will be found not to have an internal aperture.

It happens sometimes, but very rarely, that an aperture is formed in the first instance through the mucous lining of the gut. This constitutes what has

been called a Blind Internal Fistula; the other two conditions already mentioned being named the Blind External, and the Complete Fistula. The history of the case, especially the existence of pain and tension in the vicinity of the anus subsiding after a discharge of matter from the bowel, the continuance of such a discharge, and the presence of a flat induration in the hip, with softness and depression in its centre, are the signs which lead to the detection of this form of the complaint. However long the fistula may be permitted to continue, no more than one internal opening is formed, but through the occurrence of successive abscesses, the external apertures are occasionally multiplied, and sinuses may extend into the hip as well as the perineum.

Having stated so positively that *fistula in ano* originates in the texture adjacent to the mucous membrane, by the formation of an abscess, which remains entire until after evacuation of the matter, I cannot avoid noticing the very different statement upon this subject, which has been lately published by Sir B. Brodie.*

“I believe that this is the way in which fistulæ in ano are always formed, namely, the disease is originally an ulcer of the mucous membrane of the bowel,

* Lancet, 26th January 1844, p. 530.

extending through the muscular tunic into the cellular membrane external to the intestine; and I will state my reasons for entertaining that opinion. The matter is one of great interest as a question of pathology, but it is one of great importance, as I shall show by and by, in connection with surgical practice. It is admitted by every one that in the greater number of cases of fistulæ in ano there is an inner opening to the gut as well as the outer opening; and I am satisfied that the inner opening always exists, because I scarcely ever fail to find it, now that I look for it in the proper place and seek it carefully. I have, in a dead body, examined the parts where fistulæ had existed several times, and in every instance I have found an inner opening to it. This affords a very reasonable explanation of the formation of these abscesses; it is almost impossible to understand, on any other ground, why suppuration should take place in the vicinity of the rectum more than in any other part of the body, and why the cellular membrane there should suppurate more than cellular membrane elsewhere. Moreover, the pus contained in an abscess near the rectum scarcely ever presents the appearance of laudable pus,—it is always dirty coloured and offensive to the smell,—sometimes highly offensive, and occasionally

you find feculent matter in it quite distinct. There is no reason why an abscess simply formed in the cellular membrane should smell of sulphuretted hydrogen; but there is a good reason why it should do so if it be connected with the rectum.

“ This being the case, it is easy to understand why these abscesses do not heal. The least quantity of mucus even from the gut, or of feculent matter, issuing into the cavity of the abscess, is sufficient to occasion irritation and prevent it healing, and I have more than once, in the living person, been able to trace the progress of the formation of one of these abscesses. For example, I was sent for to see a lady who complained of some irritation about the rectum, and on examining it I found an ulcer at the posterior part. I ordered her to take Ward’s paste,—*confec. piperis nigri*, or cubeb pepper, I forget which. A month afterwards she again sent for me, and I found that there was an abscess. I opened it, and from the outer opening the probe passed into the gut through the ulcer which had been the original cause of the disease. The original opening of the abscess is generally very small indeed, but occasionally it is large, and when the ulceration has proceeded to some extent, large enough to admit the end of the little finger. The inner orifice is, I believe, al-

ways situated immediately above the sphincter muscle, just the part where the fæces are liable to be stopped, and where an ulcer is most likely to extend through both the tunics."

Without inquiring into the theoretical grounds upon which this explanation is founded, I would remark that the point in question is a matter of fact, which readily admits of being ascertained by actual examination. Having made this examination times innumerable, before as well as after evacuation of the abscess, I do not hesitate to affirm, that when a *fistula in ano* is formed, *the mucous membrane always remains entire in the first instance, and is never perforated until after suppuration has taken place.* That the rectum may be injured, as by fish bones or other hard substances arrested in it, or by the improper use of an injecting apparatus, and that its contents, thus permitted to escape into the cellular substance, give rise to large collections of putrid matter, it is not my intention to deny. But such events should plainly be considered quite distinct from the spontaneous formation of abscesses giving rise to fistula.

Causes of Fistula in Ano.

The process which has been described as leading to the formation of *fistula in ano* occurs in both sexes, and at every time of life, but is out of all proportion more frequent in males than females, and is comparatively rare before twenty or after sixty years of age. I have operated repeatedly on children for this disease, and more than once on infants only a few months old; but very seldom beyond the age of seventy.

The circumstances which occasion the disease act either by exciting a predisposing liability to it, or by directly calling it into existence. Of the former may be particularly mentioned chronic derangement of the lungs and digestive organs, especially the lower part of the intestinal canal. And of the latter the most important are constipation of the bowels, sedentary occupations, and exposure to cold. It is difficult to trace the connection between pulmonary complaints and *fistula in ano*; but no point in pathology is better established than that there is such a connection; and attention is not unfrequently first drawn to the phthisical condition of a patient by the disposition that he shows to suffer from the disease in question; whence it has sometimes been erroneously supposed that the discharge of the fistula

brings on the disease of the lungs. As the great intestine is generally found ulcerated in the bodies of those who have died from consumption, it seems probable that the morbid state of this part, and not that of the lungs, is the exciting cause of fistula, but the disease certainly does occur in cases of pectoral affection, which exhibit no symptom of intestinal disorder. Most frequently the cause of the disease cannot be precisely ascertained, and the patient is often not aware of its presence until he happens to notice the discharge of matter which proceeds from it. Among the causes of fistula are sometimes reckoned disease of the bones of the neighbourhood, as caries of the sacrum, or exfoliation of the denser osseous texture which composes the ischium. But the fistulous canals in the vicinity of the anus originating from these sources, are not properly classed with a disease which exists independently of any other local cause than its own peculiarity of constitution. They cannot be remedied by the same means as *fistula in ano*, and, when remediable at all, require different treatment.

Symptoms of Fistula in Ano.

Uneasiness about the anus, with a more or less copious discharge of thin purulent matter, staining

the linen, and otherwise annoying the patient, are the most constant symptoms of the complaint. The occasional escape of flatus and mucous fluid from the rectum, are generally superadded in the case of a complete fistula. But the passage of feculent matters through the preternatural channel, though often mentioned as a part of the inconvenience experienced, does not usually take place, and indeed is never met with, except when the disposition to the disease is very strong, as chiefly happens in confirmed phthisis, in which case the aperture of the fistula, externally as well as internally, instead of being small and circumscribed by effusion of organizable lymph, is large and flabby. Besides the exudation from the fistula, and more or less uneasiness about the part, especially in going to stool, people of much sensibility are farther distressed by a feeling of weakness and imperfection, which renders their existence almost intolerable. Sympathetic pains, referred to the thigh, leg, or foot, are also sometimes experienced, and have not unfrequently been mistaken for sciatica. There are other persons of a less sensitive constitution, who suffer comparatively little from the disease, and are able for a long while to endure the discomfort which it occasions. As an instance of this, I may mention the case of a gentleman between

fifty and sixty, on whom I operated for a complete fistula with two external openings, which had existed for thirty-five years. As has been already observed, the orifice of the sinus is usually very small, and, though generally rendered more manifest by being elevated above the surrounding surface, it still not unfrequently escapes the notice of the patient, especially as it is apt to close occasionally for a time. Even the surgeon sometimes experiences difficulty in detecting the disease from this source of obscurity; and I have repeatedly operated for a complete fistula, after the patient had been assured that there was no morbid affection whatever in the neighbourhood of the rectum. The fluid which is discharged varies both in quantity and quality, being at one time thin and watery, at another thick and purulent. It is often so scanty and limpid, that obliteration of the cavity seems about to be accomplished. But sooner or later the flow is increased; perhaps a new abscess forms, leaving another orifice; at all events, the fistula remains as obstinate as ever, having no natural limit to its existence.

When the fistula opens into the gut, more or less flatus and mucus must pass through it, owing to the resistance which the sphincter muscle opposes to their exit by the anus, and thus adhesion or contraction in

the surface of the sinus will be effectually prevented. But when the fistula is not complete, the reason why it should not heal like a sinus in any other part of the body is less apparent. The mere laxity of the texture, or any other peculiarity in the nature of the part concerned, is not sufficient to account for this, since suppurating cavities in the neighbourhood of the rectum are known to heal very kindly and readily, as for instance that which results from the operation of lithotomy. When the sinus penetrates, as it almost always does, between the fibres of the sphincter, the obstinacy in question may be ascribed to the frequent motion and separation of the sides of the cavity, which must result from the action of the muscle. But even this obstacle to recovery is not always present, since the fistula sometimes lies quite superficially under the skin and mucous membrane, without passing through the muscular fibres at all. It therefore seems most probable that the detached and denuded state of the mucous coat of the gut is the cause that prevents a healing action.

Treatment of Fistula in Ano.

It appears from the records of surgery, that the treatment of *fistula in ano*, until within the last hundred years, was extremely complicated and se-

vere. The induration surrounding the walls of the sinus being attributed to a peculiar morbid action in the part, it seemed to admit of no remedy except by destruction or removal; and the cavity itself was thought to require complete division of the gut throughout the whole of its extent affected, with subsequent dressings of the most careful kind. In conformity with these principles, we find that after the patient had been prepared by bleeding, purging, and regulated diet, corrosive sublimate or other powerful escharotics were introduced into the fistula, so as to bring away a slough in the form of a cylinder; that pieces of gentian root or sponge tent were next inserted to dilate the cavity, and, by thinning the partition between it and the gut, facilitate the third step of the operation, which consisted in dividing the septum to its farthest extent; and that until the cure was completed, various carefully medicated dressings were daily introduced. Such being the established principles of practice, different practitioners followed out the objects which they kept in view by a variety of methods. Some, instead of the slow and uncertain action of caustic, employed a knife for removing the callosities, either scooping them out at once, or cutting freely through them in several directions, so as to inflict what was deemed

sufficient injury to insure their destruction by sloughing or suppuration ; some divided the septum between the gut and sinus by means of knives, or scissors, or apparatus contrived for the purpose, such as what was called the probe-razor ; and others thought it better to transfix the gut with a needle, so as to include the partition in a ligature of thread or lead wire.

The treatment thus conducted was not only tedious and painful, but often attended with alarming consequences. Inflammation and constitutional disturbance were apt to follow, and the extensive incisions practised for the removal of callosities, or dividing the septum of a deeply penetrating sinus, frequently occasioned hæmorrhage very formidable, as well from its amount as the difficulty of arresting it. The cure, moreover, was not always complete, a discharge of matter occasionally still continuing, in consequence of the deep wound not healing at the bottom ; and we have the testimony of many authors who wrote at the period referred to, that the effect of freely cutting out the diseased parts was frequently so injurious, or rather destructive to the sphincter, as to occasion constipation, and what was equally distressing, though at first sight hardly compatible with it, incontinence of the bowels, their solid con-

tents being retained, and the fluid involuntarily expelled. It is no wonder, then, that *fistula in ano* came to be regarded as a complaint meriting the most serious apprehensions of the patient.

In 1765, Mr Pott published an excellent treatise on the disease, in which he reprobated the practice of destroying the callosities by caustic, and cutting them out with the knife, which proceedings he considered equally unnecessary and hurtful. He pointed out that the cavity of the abscess, and consequently that of the fistula, resulted not from a loss of substance in the part, but merely from distension of the texture, in which suppuration took place, and that the callosities or surrounding induration proceeded not from any new formation, but from induration of the cellular and adipose textures bounding the cavity. On these grounds, he maintained that, in order to effect a cure, it was not necessary either to take anything away, or to use means for promoting the growth of new substance; that all really required was to relieve the parts concerned from the continued irritation, which caused and kept up the callous thickening; and that this object could be attained most certainly by simply dividing the septum, "so as to lay the cavities of the gut and abscess into one," abstaining from all escharotic or irritating ap-

plications, and using the mildest dressings. For performing the operation, he recommended a blunt-pointed curved bistoury, as the easiest and most manageable instrument.

The soundness of Mr Pott's principles, the forcible language in which they were expressed, and the authority derived from the public field where he exhibited their practical application, produced a strong impression on his professional brethren, and the treatment of fistula, in this country at least, has ever since been in a great measure free from the objectionable practices formerly in use. As was to be expected, however, many practitioners clung to the methods in which they had been educated; and even in the present day there are some who, whether from imbibing the bad example thus transmitted to them, or from an unhappy peculiarity of judgment, still prefer the old and unjustifiable process of excision. I have seen an eminent professor of surgery in Paris cut out the fistula; and understand that he continues to pursue this practice. Some years ago a middle-aged woman came under my care in the Surgical Hospital, on account of a recto-vaginal fistula, and stated that her complaint commenced with a *fistula in ano*, for which she had had an operation performed by the surgeon of a provincial hospital, who

cut something out and laid it on the table, since which there had been a communication between the rectum and vagina. More lately a gentleman from the north of England applied to me on account of some unpleasant consequences resulting from an operation or rather series of operations, to which he had been subjected, on account of *fistula in ano*. His principal complaint was inability to retain the contents of his rectum, which, notwithstanding the resistance of a carefully constructed bandage, were wont to be suddenly and involuntarily discharged, so as to cause great discomfort, and constant apprehension. Though prepared to find something far wrong, I was not less surprised than shocked, upon inspecting the seat of the disease, to see no appearance of an anus, but instead of it a deep excavation, at the bottom of which the mucous coat of the bowel presented itself to view, completely divested of the sphincter. From these and other facts of the same kind that might be mentioned, I fear it must be concluded, that the plan of excision is still not entirely abandoned; but, feeling assured that those who persist in adhering to it, notwithstanding all that has been said and written on the subject, would not have their views altered by any argument in my power to use, I shall leave them to follow the progress of improvement at their own leisure, and

shall proceed to explain some important steps that have been established in advance of Mr Pott's practice.

It had been noticed by Sabatier and other good surgeons, that the internal opening of a complete fistula was generally seated near the orifice of the anus. But in 1820, M. Ribes had the merit of showing* that it was *always* so situated, never exceeding the distance of an inch and a quarter, and often lying considerably nearer the skin. The importance of this observation will appear when it is recollected, that, as the operation essentially requires a complete division of the parts intervening between the two openings of the fistula, unless the internal one be sought for in the proper place, it may escape detection, and thus not only occasion an unnecessarily high section of the septum, but, from not being included in the incision, lead to a continuance of the disease. When the internal opening is sought for at the summit of the sinus, it cannot be found, so that the fistula is apt to be supposed incomplete or blind external; and M. Ribes, avoiding this error, ascertained that an internal aperture existed much more frequently than had formerly been supposed. I have ascertained farther, that, in those cases where

* Quarterly Journal of Foreign Medicine and Surgery. 1820.

an internal aperture does not exist, the mucous membrane at the part in which the aperture would be situated if present is not only denuded, but rendered so thin that the perception of a probe through it is hardly less distinct than if it had entered the rectum ; and that, if the incision extends to this point, the cure will be no less certain than if an opening into the gut had existed.

In regard to the importance of the principles thus established, I may, in the first place remark, that, limiting the incision within the narrow bounds that have now been mentioned, lessens not only the difficulty of its performance, and the suffering of the patient, but also the risk of hemorrhage, and the trouble of after treatment ; since, instead of having to keep separate the edges of a deep and not easily accessible wound, the surgeon has merely to prevent adhesion between the lips of a superficial cut. But the operation, while thus simplified in its performance, is also rendered more certain in its effect, since in cases of complete fistula the most extensive incisions will fail to afford permanent relief, unless they include the internal opening. I have, times without number, operated on complete fistulas that had been looked upon as blind external, from the internal orifice having escaped detection through unacquaintance with its

position ; and the repetition of operations for the disease, which are so frequently heard of in practice, are, with few exceptions, referable to this mistake.

In the reports of surgical cases which I have published from time to time since the year 1829, and also in the systematic work on Surgery, of which the first edition appeared in 1831, I have endeavoured to explain and impress these principles which have been uniformly acted upon in my own practice. They are still, however, far from being generally adopted, and many writers of high authority continue to inculcate the practice of Mr Pott. Sir A. Cooper says,* “if the fistula does not open into the intestine you must pass the instrument (a bistoury) up the sinus till it reaches the extremity.”—“A very copious hæmorrhage generally follows the division of the septum,” &c. Mr Copeland says, “In this operation, though there are no vessels of very considerable size in danger of being wounded, yet, when the sinus extends far up the side of the gut, a hæmorrhage now and then takes place, either at the time of the operation, but more usually a few hours after it, which, if it be not important from the magnitude of the divided artery, becomes often so from the difficulty, perhaps impossibility, of securing it by a

* Surgical Lectures, p. 425. 1837.

needle and ligature.”—“I will venture to say, that it (the hæmorrhage) has occurred to almost every surgeon who is in the habit of performing the operation.”—“After many unsuccessful attempts to secure a bleeding vessel under such circumstances, I once accomplished it by introducing a blunt gorget into the rectum ; and, by keeping the gut thus dilated, I was enabled to see the orifice of the bleeding artery and to secure it.”* Mr Liston says, “Some con-

* The bad effects of dividing the septum to its farthest extent are well illustrated by the following case which Mr Copeland has given.

“A carpenter, about thirty years of age, had the operation for *fistula in ano* performed on him in the year 1803. There were two extensive sinuses in the nates divided ; but the principal one extended above three inches up the side of the gut, and then perforated it ; this also was laid open. There was considerable hæmorrhage at the time of the operation ; but the patient fainted and the bleeding stopped ; and, when the wound was dressed, he went to bed. After he had been in bed about an hour the hæmorrhage returned, and the bleeding artery was so high up the sinus, as to be entirely out of the reach of the needle and ligature ; the gut, therefore, and the wound, were filled up with compresses of lint, wet with spirit of turpentine ; and, for some time, it was thought that this mode of compression had succeeded in stopping the hæmorrhage ; but, during our fancied security, his pulse became hardly perceptible, his lips pale, and the whole of the body was in a cold sweat. He was now supported by wine and other cordials ; and, in a short time, the hæmorrhage burst out again, with as much violence as ever,

tend that fistulæ are always complete, that they commence from within, and that the internal opening is always at one particular point; but such, according to my experience, is very far from being the case.”—“ Having reached the extreme depth of the canal, the direction of the instrument’s point is changed, so as to apply its cutting surface to the coats of the bowel at that part.”*

Having so long contended in favour of the almost constant presence and fixed position of the internal orifice, I am happy to observe that Sir B. Brodie now advocates the same doctrine.

“The first thing to be done is to find the inner opening. I do not say that you will always succeed in finding it—certainly not the first time, but you will rarely fail if you look for it in the right place. Formerly, I often failed, and for this reason,—I did not know where to look for it. I used to think that it was to and continued for more than an hour. All the compresses were now removed, the rectum cleared as much as possible of coagulated blood, and the wound left without any dressings. The hæmorrhage stopped, and did not return again ; but very large quantities of coagulated blood were evacuated with the feces for three days afterwards. He was, as may be supposed, extremely debilitated by this loss of blood, but finally recovered his strength, and his fistula was dressed, and cured in the usual way.”—On Diseases of the Rectum and Anus, pp. 159–161. 3d edition.

* Elements of Surgery, vol. iii. pp. 70–82.

be found in the upper part of the sinus, but it is never found there if the sinus runs high up. You must search for it immediately above the sphincter muscle.”*

Believing that the principles which I have endeavoured to explain are calculated to save much suffering, I think it right to state them in a condensed form.

1. *Fistula in ano* originates from an abscess in close connection with the mucous membrane, but exterior to it.

2. The internal opening is of secondary formation, and does not lie farther from the anus than an inch and a quarter, but is frequently much nearer to it.

3. In external fistula not communicating with the gut, the mucous membrane is always denuded and attenuated for some extent at the part where the opening would be if there were one.

4. In performing the operation it is merely necessary to divide the parts lying between the external and internal apertures, or denuded part of the mucous coat corresponding to the latter.

5. In the after-treatment it is not necessary to interpose any dressing between the edges of the wound beyond the first forty-eight hours.

* Lancet, 26th January 1844, p. 533.

Having thus endeavoured to explain the pathology and treatment of fistula in general, I may now consider more particularly the different stages of the complaint.

When the formation of matter in the vicinity of the anus is threatened by the occurrence of pain, hardness, or swelling of the part, it is usual to abstract blood locally by leeches or cupping. Some temporary relief may thus be obtained,—but the improvement is neither complete nor permanent, and the progress of the complaint, though it perhaps becomes more slow, is not less troublesome,—being rendered sluggish and unmanageable. The application of heat and moisture by means of the hip-bath or fomentations has a very soothing effect on the patient's uneasy feelings, and accelerates the termination of his complaint, either by inducing resolution of the inflammatory action, or promoting suppuration. Evacuation of the bowels should be facilitated by the administration of gentle laxatives, such as castor oil, and injections of warm water into the rectum; and the patient must confine himself to the horizontal posture, as well as the antiphlogistic diet, with strictness in proportion to the acuteness of his symptoms.

So soon as fluctuation is perceived, or the presence

of matter may be inferred from the duration of symptoms, the fluid should be evacuated to relieve the patient's uneasiness, and prevent diffusion into the neighbouring loose cellular texture, which might be the foundation of troublesome sinuses. The knife is now almost exclusively employed for this purpose, and a free incision is made by it from the hip towards the anus, through the centre of the undermined integuments. Poultices are then applied for a few days until the inflammatory engorgement subsides, after which the cavity gradually contracts, and the case passes into the condition of a sinus or fistula. It might be thought better to divide the septum between the abscess and gut in the first instance, and some practitioners have advised this to be done. But it appears that recovery after the operation is not so speedy or so certain when it is performed thus early as when it is delayed until the textures affected are allowed some time to regain their natural state.

In examining a case of fistula with the view of operating, the fore-finger of the left hand should always be introduced into the rectum, while the probe is guided with the other, since unless this be done it is almost impossible to discover either the existence or the position of the internal opening. The probe

should be slightly curved, and have its concavity turned towards the opposing finger, which is often able to detect the orifice, or rather the irregular induration surrounding it, and thus assist in directing the instrument. If there is no internal opening the same exploration will discover the denuded part of the mucous membrane which occupies its place, and equally with it determines the limit of the incision. As the fistula is situated most frequently at the side of the anus, and very rarely either behind or before it, the most convenient position for the patient in general is stooping forward, with the arms resting on a table or chair. But when the orifice happens to be on the left side, unless the surgeon is ambidexter, the patient should be placed on his back with the limbs elevated. Females should lie on their side.

In performing the operation, a knife narrower in the blade, particularly at the point, and less curved than the bistouries in common use, will be found the most convenient. It should be gently insinuated up along the fistulous canal, while the operator's finger in the rectum assists in guiding its direction, and passed through the internal aperture if there is one, or pushed through the mucous membrane if it still remains entire; the point, resting on the finger, is then brought out of the gut; after which, by a saw-

ing motion of the blade, or a steady movement of it onwards, the septum is divided, almost instantaneously, with little pain, and hardly any bleeding. When much difficulty has been experienced in finding the internal opening, it is a prudent precaution, especially for a surgeon not much practised in the operation, to push the probe through the sinus, so as to bring its point out at the anus, before using the knife, since it is thus impossible to miss the orifice by transfixing the thin membrane which surrounds it. If any sinuses extend under the integuments of the hip or perineum, they should now be laid open with the knife, and then small pieces of dry lint are placed between the cut edges. This dressing will require to be renewed on the following or second day, when the patient's bowels have been moved, and after this a pledget of lint, moistened with a weak solution of sulphate of zinc, or water alone, and covered with a piece of oiled silk, to prevent it from drying, may be placed over the wound until the cure is completed. A T bandage, or couple of handkerchiefs put on in this form, will enable the patient to keep the dressing applied without confining himself to the horizontal posture, which beyond the first day or two is quite unnecessary. Great attention to cleanliness will be required, and frequent ablution

with soap and water contributes not only to comfort but also to a speedy recovery.

What has now been said relative to the treatment of *fistula in ano* applies to those cases of the disease that admit of remedy, which fortunately constitute a large proportion of the whole. But before determining to operate, or holding out the probability of relief from doing so, it is necessary to ascertain that no obstacles exist likely to frustrate the surgeon's efforts, and defeat the patient's hopes. The most common of these opposing circumstances is a phthisical condition of the patient, which, as has been already observed, powerfully predisposes to the disease, and in the event of an operation being performed, is apt either to impede the healing of the wound, or lead to relapse through the formation of new abscesses. Any tendency to this condition, therefore, should render the prognosis in respect to an operation more or less unfavourable, though its performance cannot always with propriety be declined. Patients after exhibiting symptoms of pulmonary disease frequently recover so as to live for many years nearly or altogether free from complaint; and while the issue of their principal disorder is thus uncertain, it would be wrong to withhold the chance of recovery from the minor one, which often occa-

sons more anxiety than the other. The refusal to operate is also apt to cause great discouragement ; and the slight incision which has been shown to be all that is necessary for curing the disease, if it has not the effect desired, at least makes the patient more comfortable, by lessening the irritation of the parts concerned, and moderating the discharge. In these circumstances, unless the fatal disease is so far advanced as to render even the slightest surgical interference improper, though the operation for fistula may not with prudence be proposed or urged in consumptive cases, it may be performed if requested by the patient.

Fistulous openings near the anus, and leading into the rectum, sometimes communicate also with the urethra. The origin of this complicated form of the disease is an abscess situated between the prostate gland and perineum, which, from not being evacuated early by incision, discharges its contents into the urethra and rectum, before overcoming the resistance to an outward course, which is opposed by the fascia of the perineum ; and when at length openings do take place in the skin, they are usually situated at the verge of the anus and root of the scrotum. Flatus and thin feculent matter escape by the urethra, urine issues from the rectum, and a

copious fetid discharge proceeds from the external orifices. The patient suffers great and unceasing distress, and, unless relieved by efficient treatment, ultimately sinks under the continued irritation and exhaustion.

These formidable consequences of allowing the abscess to open spontaneously render it incumbent on the surgeon to be careful in recognising the disease at an early period, and giving free vent to the matter, by an ample incision through the integuments and fascia of the perineum. The disease is generally induced by exposure to cold. It commences with pain in the region of the prostate gland, aggravated by micturition and going to stool, and is attended with more or less fever. When the matter begins to accumulate, difficulty is experienced in voiding the urine, sometimes to the extent of complete retention, and requiring the catheter to be introduced. The patient may continue in this state without any alteration, except the occasional occurrence of rigors, for eight or ten days or even longer, until the fluid makes a way for its escape. The perineum when examined is found to be fuller than natural. But, as the integuments retain their ordinary colour and consistence, this change may readily escape observation ; and fluctuation, owing to the

depth of the abscess, can hardly be perceived, unless the finger is introduced into the rectum, through the coats of which the fluid is easily felt. I have frequently been asked to draw off the water when obstructed in this way, without any suspicion having been excited as to the cause of difficulty, and have known the practitioner first take alarm from observing that the catheter contained pus. Examination by the rectum, together with the history of the case, will leave little room for doubt as to the existence of matter. But if there should still be any uncertainty, it will always be right to make an incision in the perineum, since this can do no harm, and the withholding of it exposes the patient to the danger of all the distressing consequences that have been mentioned, as resulting from spontaneous evacuation of the abscess. This incision should be made not at one side but in the raphe or central line of the perineum, so as to afford a direct as well as free drain for the matter.

When the disease has advanced to its fistulous state, it is necessary to lay open the sinuses; and even then the recovery is not always speedy or complete. The operation should be commenced by dividing the septum between the gut and the cavity left by the abscess. For this purpose the knife is intro-

duced into the orifice which lies nearest the verge of the anus, guided upwards until it enters the gut, and then carried outwards through the septum, which in this case is generally more extensive than in an ordinary fistula, from the internal orifice being seated higher, even above the inner sphincter. The sinusses which extend between the anus and scrotum are next to be laid open, and then pieces of dry lint are inserted between the cut edges. The deep incisions which are sometimes required expose the patient to the danger of hemorrhage; and if there should be any appearance of this the bleeding vessels are if possible to be tied, or the wound may be carefully stuffed with lint, the hips being elevated and having cold applied to them. After the cure appears to be complete, a very small fistulous communication is apt to remain between the urethra and rectum, allowing a few drops of urine to pass occasionally. If this does not close within a moderate time, or proves annoying to the patient by exciting his alarm, a red-hot iron wire should be introduced into the orifice, exposed by a speculum, as often as may be necessary for inducing contraction and obliteration of the slender canal. In all cases of this kind, especially those which have been long established, it is proper to search the urethra for stricture; since this additional

complication is not unfrequently met with, whether as a cause or consequence of the fistula it is not always easy to determine.

Fish bones and other bodies of a similar form are occasionally arrested in their passage through the alimentary canal by the *sphincter ani*—and may then penetrate the coats of the gut, so as to cause the formation of an abscess, which of course will not admit of being healed so long as the irritating substance remains. It is only by examination with the probe or finger that this complication can be discovered—the patient seldom being aware of having swallowed any thing improper, or at all suspecting the cause of his complaint. When the nature of the case has been ascertained, the fistula should be laid open in the ordinary way ; and then, if necessary, more extensive incisions may be made to permit extraction of the foreign body without violence, or tearing of the surrounding parts.

Fistula in ano is sometimes found associated with stricture of the rectum, and in this case has been attributed to the resistance which is opposed to the passage of the contents of the rectum by the preternatural contraction of the gut. If so, the orifice ought to be situated higher up than the stricture ; instead of which it occupies the usual position, about

an inch from the anus. If the stricture, therefore, has any share in causing the fistula, it must act merely by exciting irritation in the neighbourhood. In regard to the performance of the operation, the presence of a stricture does not require any deviation from the usual course of proceeding; but the recovery of the patient will of course depend upon the practicability of restoring the rectum to its natural capacity and texture.

The abscesses which result from the *Morbus coxarius*, or hip disease in its advanced stage, generally open in the lower and back part of the hip, but those which proceed from caries of the sacrum, and those connected with exfoliations from the ischium or pubis, discharge their contents near the anus, so as to present the appearance of ordinary fistula at this part. It is obvious that, if the sinus depends upon caries, it will not be benefited by any extent or number of incisions, and that if it leads to an exfoliation, the detached portion of bone must be extracted as an essential step to recovery. Many years ago I was asked to see a young man who had suffered repeated operations for what was supposed to be *fistula in ano*, without obtaining relief, and had at length become so much exhausted as to have lost all hope of recovery. A careful examination led to the

discovery of an exfoliation lying inclosed in a capsule of cartilaginous firmness, formed by the origins of the flexor muscles of the knee, from the tuberosity of the ischium. After the extraction of this piece of bone, the patient quickly recovered, and completely regained his strength. More lately I saw a young woman who had suffered from *fistula in ano* for five years, and wished to have the operation performed. On introducing the probe I felt it grate past a hard surface, and extracted a thin scale of bone, which had probably been detached from the arch of the pubis, as she attributed her complaint to a strain sustained in hastily descending from the roof of a coach.

CHAPTER SECOND.

HEMORRHOIDS.

THE expression Hemorrhoids, in the meaning usually applied to it, comprehends various tumours which grow at the verge of the anus. It thus denotes a disease of more frequent occurrence than perhaps any other to which the human body is subject, few people, especially in easy circumstances, being entirely free from it in one form or other. The morbid swellings do not all possess the same constitution and characters, but differ in both of these respects so widely, as to require being divided into three distinct sorts. In the *first* place may be mentioned those which depend upon enlargement of the veins at the extremity of the rectum,—*Secondly*, those termed External Hemorrhoids formed by enlargement of the thin skin and subjacent cellular texture, which, lining the orifice of the gut, and connecting the mucous membrane of the bowel with the external integument of the body, though naturally seated neither

within nor without the sphincter, projects beyond it when distended by inflammatory engorgement,—*Thirdly*, those which consist of a vascular development of the mucous membrane, constituting tumours that possess a great tendency to bleed when protruded beyond the anus. They do not occupy this position except in consequence of exertion in the erect posture, or the expulsive efforts employed for evacuating the bowels; and so soon as these causes cease to operate, or pressure is applied externally, they return into their proper place within the sphincter, whence they are named Internal Hemorrhoids. Before particularly considering the structure, symptoms, and treatment of these tumours, it will be proper to inquire generally into the circumstances which give rise to their formation.

Causes of Hemorrhoids.

Whenever the bowels are evacuated, more or less of the lining membrane of the anus is everted, and distended by the resistance which is then opposed to its venous circulation. Constipation, by rendering the expulsive efforts more continued and laborious, must increase this effect, and tend to produce permanent enlargement of the protruded part. But constipation usually depends on errors of diet or re-

gimen, particularly redundant nourishment, and deficient exercise, causing derangement in the healthy action of the digestive organs, which not only leads to irregularity in the evacuations, but likewise, through the medium of constitutional disturbance, proves a fruitful source of local disease ; and as the parts about the extremity of the rectum, as has just been explained, are in such circumstances exposed to more than usual irritation, it is not surprising that they should frequently become the seat of morbid action. The disease being once established, will promote its own increase by impeding evacuation of the bowels, and from the pain as well as hemorrhage which may attend it, deranging the healthy action not only of the digestive organs, but likewise of the whole system. Pregnancy, enlargement of the liver, and other abdominal tumours, by opposing a free return of blood from the pelvis, will favour the production of hemorrhoids, especially those which depend upon a varicose state of the veins. In addition to the exciting causes which have been mentioned, it would appear that a predisposition to the disease frequently exists, since in some people it is induced much more readily than in others. Persons thus prone to the complaint occasionally suffer from it at the age of puberty ; but it seldom proves troublesome until the

frame is fully developed, and is generally most distressing from the age of 25 to 60.

Venous Hemorrhoids.

The lower part of the rectum is supplied with numerous veins lying under the mucous membrane, through which they may be readily distinguished. These vessels in the neighbourhood of the anus are liable to varicose enlargement, and then present the appearance of irregular tumours encroaching on the cavity of the gut. They extend for an inch or more above the anus, but do not show themselves beyond it, unless the nates are held aside, when they may be seen projecting from the sides of the orifice. They possess a dark colour, smooth surface, circumscribed form, and tense consistence. The veins thus altered are liable to inflammation of the same subacute kind to which the varicose *vena saphena* is subject. In this state they become larger, harder, and excessively painful, especially when in the slightest degree compressed, so that sitting and evacuating the bowels occasion great distress. The blood circulating through them frequently coagulates during such attacks: and if it subsequently undergoes absorption, a spontaneous cure may be accomplished. At other times supuration ensues in the surrounding cellular sub-

stance, and may thus lay the foundation of *fistula in ano*. A discharge of blood also occasionally proceeds from ulceration of the enlarged veins, just as happens in the leg.

This form of the disease formerly attracted more attention than either of the others, and has even been supposed to be the sole cause of hemorrhoidal swellings. In a slight degree it is certainly very common, and to this extent frequently exists, along with enlargement of the neighbouring textures; but without such complication it comparatively seldom attains sufficient size to produce much inconvenience. The situation of the visible part of the tumours, neither within nor altogether without the sphincter, together with their form, consistence, and colour, render their recognition very easy. In regard to the treatment, the tendency of the venous tissue to resent irritation seems to forbid any operation, and render excision as well as puncture dangerous. But the veins affected are extremely small immediately beyond the enlarged portion, and no inconvenience is experienced in practice from inflammation of the vessels when the tumours are cut out or simply evacuated by a puncture. In the latter way relief is afforded at once on very easy terms, and it is only in case the patient objects to this being done that sooth-

ing measures, such as rest in the horizontal posture, gentle laxatives, as castor oil, injections of tepid water into the rectum, and the hip-bath will be required. When the symptoms are severe leeches may be placed round the anus, opiate injections should be administered, and lotions, containing acetate of lead with opium, applied to the inflamed parts. By these means the paroxysm is subdued in the course of a few hours, or days at the farthest ; and by care afterwards in guarding against the causes of excitement, future attacks may be either prevented or rendered less distressing.

External Hemorrhoids.

The thin skin which connects the internal mucous and external cutaneous covering at the anus, like the same texture in other situations such as the lip and prepuce, is liable to swelling, from distension of the loose cellular substance which lies under it. Any irritation in the vicinity may occasion this ; and the derangement once induced contributes to its own increase, by causing protrusion of the affected part beyond the sphincter, and so promoting the tendency to inflammatory engorgement by impeding the circulation. A tense red tumour, or series of tumours, may now be seen at the margin of the anus,

easily distinguishable from varicose veins in the same situation, by their florid colour, pyriform shape, and more yielding consistence. In other respects the symptoms are nearly the same. The inflammation usually terminates in resolution, but sometimes leads to suppuration, and also, though very rarely, proceeds to mortification. When the engorgement attending the excited action subsides, the distended skin may resume its natural condition completely, but, in general, does so only partially, and remaining relaxed, constitutes a permanent pendulous fold at the orifice of the gut, always ready to resent any irritation, and swell to its former or even a still larger size. The external pile thus constituted generally contains interspersed through its substance small venous cysts arising from a varicose state of the vessels.

The artificial mode of life which results from the usages of civilized society tends so strongly to the production of hemorrhoidal disease, that few people remain altogether free from it; and this form is the one which it most frequently assumes, often existing independently of any other morbid affection, and very generally accompanying other diseases of the rectum. Various methods have been pursued in the treatment of external hemorrhoids; but it is needless to men-

tion any other than excision, since this is undoubtedly the best mode of removing them. Scissors curved to one side will be found the most convenient instrument for the purpose, and may be employed either alone, or with the assistance of double-pointed forceps to steady the tumours during their separation. The operation is very easy, and attended with little pain or bleeding. It is also quite effectual. The best time for its performance is when the hemorrhoids are in a quiescent state; and it should always be insisted upon when they are present in a case requiring any other operation, since unless removed previously, or at the same time, they would be apt to suffer from the irritation, and, by adding the complication of inflamed piles, greatly increase or prolong the patient's sufferings. The blades of the scissors should be directed from the circumference towards the centre of the anus, in order to get at the root of the tumours, unless the whole circumference of the orifice is affected, when a circular portion of the relaxed integuments should be removed. A piece of dry lint is the only dressing required in the first instance, and generally proves sufficient, as the raw surface readily contracts and heals. If necessary, a sulphate of zinc lotion may be applied.

While the hemorrhoids are suffering from inflam-

mation, excision may still be practised, and it should be resorted to if the patient is willing to endure the pain that attends cutting in this state, in order to get speedily relieved from the complaint. If it be thought better to delay the radical cure until the parts get into a condition more favourable for its easy performance, the same soothing means that have been already mentioned as proper in the cure of inflamed venous hemorrhoids should be employed. Unless the tumours are very tense, it is also useful to make gentle pressure on them, to unload their vessels, and promote their return within the sphincter.

As excision always affords an easy, safe, and effectual remedy for external hemorrhoids, it seems unnecessary to say much of the other means which have been proposed, and more or less extensively adopted. The ligature is decidedly objectionable, as being infinitely more tedious, and also more painful than the knife or scissors, without any compensating advantage. The application of astringent ointments, such as the *Unguentum Gallarum*, is very inefficient, and calculated rather to amuse the patient than to afford him any real benefit; and the introduction of bougies can hardly produce more than a little temporary relief. The best palliatives are attention to regimen, the use of gentle laxatives, such as sulphur

nates it is not very easy to explain. The circumstances which have been mentioned, as accounting mechanically for distension of the veins and swelling of the lax textures at the verge of the anus, cannot operate here; and we must be satisfied with inquiring into the causes which operate less directly in producing the disease. Like other hemorrhoidal affections it occurs chiefly in the vigour of life. It is much more common in males than females, and in both sexes greatly more frequent in the higher than the lower ranks of society. Residence in warm climates, a luxurious diet, deficient exercise, and excitement of the generative organs, are the circumstances which seem to have the most powerful influence in determining its commencement, and encouraging its progress, especially when several of them operate together. Literary pursuits and a professional life, by occasioning sedentary habits, are observed to favour the production of this morbid excrescence. It would seem, in short, that the superfluous nourishment usually acquired by persons in easy circumstances, when not expended in bodily exertion, is apt to find vent through the channel of internal hemorrhoids, into which it may be directed by the opposition afforded by a sitting posture to

the free return of the blood circulating in the pelvic viscera.

The symptoms which attend this kind of hemorrhoid may be divided into three sorts, namely, painful sensations, protrusion of the tumour, and hemorrhage. Some patients complain of all these inconveniences equally ; others complain of them singly. But in general they are present together, while one of them predominates by its severity, and the attention consequently bestowed upon it. The painful sensations are referred either to the seat of the disease itself, or to the urinary organs, with which the rectum is intimately united in sympathy. The pain of the swellings is sometimes described as dull and oppressive, at other times sharp and lancinating. The irritation of the urinary organs occasions uneasy feelings in the course of the urethra, frequent desire to make water, and difficulty in doing so. There is no regular proportion between the extent of the disease and the severity of its symptoms, nor is there any difference observable in the appearance of the tumours adequate to account for the variety which occurs in the nature as well as the degree of the annoyance occasioned by them, and which no doubt must depend upon individual peculiarities of local or constitutional irritability. A gentleman,

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about 35 years of age, complained of pain at the extremity of the rectum, which was seldom entirely absent, and from which he occasionally suffered so much as to feel quite unbinged and incapacitated for any exertion either of body or mind. On examination I could find no morbid appearance except a very small internal hemorrhoid, not larger than the point of the little-finger, the removal of which completely relieved him. The urinary symptoms are sometimes so prominent as to call attention from the true seat of the disease. A gentleman, about 50, suffered for years from excessive pain in the region of the bladder, with frequent desire to make water. He consulted a great many physicians and surgeons of eminence, and had at length made up his mind that the disease, in accordance with the opinion of a distinguished pathologist, was *tic-douloureux* of the bladder, when a medical friend thought of examining his rectum, and discovered several large internal hemorrhoids, which I removed with the effect of affording complete relief.

The protrusion of the swellings is a nearly constant symptom of the disease, and is troublesome in proportion to their size. At first the tumours pass beyond the sphincter only during the forcible and continued efforts to evacuate the bowels which attend

constipation ; but by-and-bye they descend more readily, and return with more difficulty, requiring to be pushed up by external pressure ; and in cases of old standing, where the skin lining the anus, from being frequently put upon the stretch, remains permanently relaxed, hanging in folds round the orifice, the tendency to protrusion is so great, that the hemorrhoids descend not only upon occasion of going to stool, but also whenever the patient makes the slightest exertion, or even when he simply assumes the erect posture. The protruded part is of course painful, especially when subjected to pressure, and, by soiling the patient's clothes with the mucous and bloody discharge that issues from its surface, is a constant source of annoyance. A middle aged lady, whom I saw with Dr Begbie, had been confined for two years to the horizontal posture by hemorrhoidal swellings, which descended from the gut whenever she attempted to walk or stand. After the disease was removed she could walk for miles without any inconvenience.—A gentleman, about 50, whom I saw with Dr Davidson, had suffered for upwards of eighteen years from a protrusion of this kind, and, holding an office in the courts of law, which frequently required him to sit for many hours in public, endured more distress than it is easy to

describe or imagine. He was completely relieved by removal of the enlargement.—A man, about 40, from Dundee, was in the hospital here under my care on account of a hemorrhoidal protrusion, which had troubled him for more than twenty years, and latterly disabled him entirely for his occupation, which was that of a weaver. He returned home quite well.—Many other cases could be mentioned in illustration of the protrusion of the tumours constituting the prominent feature of the disease. It is such cases which generally go under the title of *Prolapsus ani*, and, being supposed to depend upon weakness of the sphincter, are palliated very imperfectly by the application of bandages to support the gut. Such means of palliation are no less unpleasant than inefficient, and in some respects, indeed, may be considered as even more irksome than the disease itself. It is therefore of the utmost importance to take a correct view of the derangement, which leads to an easy, safe, and effectual remedy.

The bleeding which proceeds from internal hemorrhoids is the most alarming symptom attending the disease, and the one which occasions the most serious effects. It takes place when the tumours are protruded beyond the sphincter, and varies in amount from a few drops to several ounces. The blood

sometimes seems to ooze from the surface, and at other times springs out in a jet, extending, if permitted, to the distance of several feet; whence it is often supposed that the patient has ruptured a blood-vessel. The quantity lost at each time of going to stool is very unequal, and varies with the condition of the patient, increasing when there is general irritation of the system or excitement of the pelvic viscera, and diminishing in circumstances of an opposite kind. For weeks or months the hemorrhage may cease altogether, and then return more vigorously than ever; but its general tendency is to increase with the duration of the complaint. At its commencement the discharge of blood may in some instances be regarded as salutary, as it occasionally seems useful in relieving other parts of the system from oppression. But when it becomes habitual and copious, besides the unpleasant feelings connected with it, very serious derangements of the system are apt to be produced. The patient loses flesh, and acquires a remarkable paleness of complexion, which is afterwards exchanged for a peculiar dingy yellow hue, like that of imperfectly bleached wax. The lips no longer possess their vermilion colour, and resemble those of a dead body; the tongue too has a blanched appearance very characteristic of the state induced by excessive

or continued depletion. These symptoms are attended with great listlessness, or want of energy both of body and mind, disturbed sleep, irritability of temper, quick pulse, and headach, which is generally increased by rising up more than by lying down. Palpitation and pain in the region of the heart, and difficulty of breathing, are also frequently induced by slight exertion or agitation of any kind. In advanced stages of the disease there is sometimes œdematous swelling of the feet and legs. A fixed pain in the region of the colon, especially on the left side, occasionally also proves troublesome—and, together with irritability of the bowels, is apt to distract attention from the real seat of disease, by simulating chronic dysentery ; while derangements of the stomach proceeding from the same source are often treated under the title of dyspepsia.

It is obvious that the condition which has now been described must not only prove very distressing in itself, but tend to the production of other serious diseases ; and, therefore, ought to be remedied with the least possible delay whenever ascertained to be present. A popular prejudice has existed against interference with bleeding piles, on the ground that harm may arise from suddenly checking a habitual discharge ; but the worst consequences thus antici-

pated are hardly to be dreaded more than those directly sustained from the disease ; and the result of experience is quite opposed to the apprehension of harm being so produced. In illustration of the safety with which the hemorrhage may be arrested, even when of the longest standing and greatest extent, I may mention the case of a lady whom I attended with Dr Donaldson of Ayr. At an early age she had begun to suffer from hemorrhoids, and thirty years before I saw her had been advised by Mr Benjamin Bell to have them removed. This was declined, and the disease went on increasing with all the usual symptoms, until at length the bleeding, which for seven or eight years had been very profuse, so affected the general health as to excite the serious alarm of her friends. She exhibited in an extreme degree the peculiar aspect and other symptoms of exhaustion caused by a continued drain of blood. But very soon after the removal of the hemorrhoidal tumours, which were large and numerous, so as to encircle the aperture of the gut, she regained her strength and healthy look ; and though many years have now elapsed since the operation was performed, she has not suffered any unpleasant symptoms from the sudden suppression of her complaint.

The existence of bleeding from internal hemor-

rhoids frequently escapes the observation of the medical attendant, from the patient carelessly overlooking or wiffully concealing it. In females, the delicacy of the sex, which is an additional obstacle to discovering the disease, should excite corresponding vigilance on the part of the surgeon; and whenever there is any ground for suspecting its existence, an examination of the bowel in its most protruded state should be insisted upon before giving any opinion of the case. It is also very necessary to beware that the symptoms, especially those connected with the circulation, do not obscure the nature of the disorder, and make it appear to depend on what are really its secondary effects. As an instance of this, I may take the case of a gentleman, about 40, an English commercial traveller, whom I saw with Mr Alexander. He had laboured long under what was supposed to be disease of the heart, and been treated for this complaint by one of the most eminent provincial physicians in England. His waxy look, bloodless lips, and defective energy, together with irregular action of the heart, certainly afforded considerable ground for this opinion; but Mr Alexander discovered that there was an internal hemorrhoid, which bled profusely every time the patient went to stool, and I removed it, with the effect of quickly restoring him to health.

There is reason to fear that in such cases as this the cause has not only been mistaken for the effect, but may even have been supposed to exert a salutary influence in moderating the violence of its action,—in other words, that the flow of blood from the rectum has been supposed to depend upon disease of the head or heart, and to be useful in lessening its force. Such erroneous views may have led to the equally erroneous practice of abstracting blood artificially in these circumstances; the effect of which may be easily imagined.

The treatment of internal hemorrhoids is generally regarded with much uncertainty and apprehension, from the conflicting opinions of practical writers on the subject, and the disagreeable results of some methods which have been pursued. Excision is certainly the quickest and easiest mode of removing the tumours, but is very apt to occasion a serious or even fatal hemorrhage. The blood does not readily escape externally, but, accumulating in the rectum, excites the desire to go to stool, and is then voided in the form of a dark-coloured feculent-looking fluid, which may impose upon the attendants, and conceal from them the true situation of the patient. Sir A. Cooper has related the case of a Scottish nobleman who perished in this way, and

several other instances of the same kind. If other practitioners had been equally candid, we should doubtless have had more testimony as to the danger of this operation; and every surgeon who has practised it must have experienced more or less alarm. Before my own views were settled as to the best means of treating the disease, I on one occasion cut away an internal hemorrhoid, which was partially protruded, and found it necessary to employ manual pressure for several hours to restrain the bleeding that followed. In another case of the same kind, I succeeded in securing the vessels by ligature. In order to obviate this danger, it has been proposed to transfix the base of the protruded part with pins, to prevent the raw surface from being drawn within the sphincter until the bleeding ceases, or is arrested by ligature.* But it is to be feared that the hemorrhage, though prevented so long as the part was kept tense by the pins, might occur after their removal, unless they were allowed to remain until the orifices were sealed up with lymph, which could not be done without the risk of exciting inflammation and constitutional disturbance, to say nothing of the prolonged confinement and distress necessarily attendant upon such a mode of procedure.

* Salmon on Prolapsus of the Rectum.

Excision being thus objectionable, caustics of different kinds, such as the concentrated mineral acids, and the actual cautery, have been employed for destroying the hemorrhoidal growth, and might possibly be so managed as to prove useful in doing so, if there was no preferable means of accomplishing the object. But as they are extremely painful, tedious, and uncertain, while there is another which perfectly attains all that can be desired in treating the disease, without any of these objections, I may proceed at once to speak of it, namely, the Ligature.

By applying a sufficient number of ligatures to the roots of the tumours, they may be certainly removed without any danger of bleeding. But it has been alleged, that, instead of this danger, another not less formidable is encountered in inflammation, spreading from the strangled parts, and either terminating fatally, or causing extensive suppuration and sloughing in the neighbourhood of the anus. The seeming resemblance between the condition of an internal hemorrhoid, to which a ligature has been applied, and a strangulated hernia, makes it appear likely that this effect would follow the operation; but experience teaches, what a more careful analysis of the cases would lead us to expect, that the bad consequences thus anticipated do not really present

themselves. In a strangulated hernia, the circulation of the protruded parts is not entirely obstructed, but merely impeded, so as to cause irritation and inflammation, with its usual local and constitutional symptoms, aggravated by the importance of the affected part; while a hemorrhoid subjected to the ligature is completely detached from any share in the vital action of the system, which, consequently, cannot be influenced by its condition. Accordingly, however similar the two cases may appear at first view, their results prove very different; and I feel warranted, after very extensive employment of the ligature, to state, that it may be used without the slightest risk of any serious inconvenience. Indeed, in the whole course of my practice, I never met with a case which either terminated fatally or threatened to do so.

In order to account for the bad consequences which Mr Copeland and others have related as occasionally attending the use of the ligature, it will be sufficient to remark, that if the threads are not drawn tight,—if such large portions of the morbid texture are embraced by them as to prevent the degree of compression requisite for preventing altogether the circulation through the tumours,—or if the whole of the disease is not included, disagreeable ef-

fects may not improbably ensue. Sir A. Cooper has advised that the ligatures should not be drawn tight, with the view of lessening the pain caused by them. But, with all deference to his high and justly esteemed authority, I feel no hesitation in stating, that while the suffering of the patient cannot in this way be rendered less severe in the first instance, it will ultimately be much greater, as well as more prolonged, and attended with more danger of spreading inflammation, than if the strangulation had been completed at once. To lessen the pain, it has also been proposed to cut away the tumours, immediately after they are tied, close or near to the knot, which method, it is obvious, must be attended with another danger, since the ligature, when thus left unsupported, will be apt to slip off, and permit the vessels to bleed. If the threads are drawn tight they will not so readily quit their hold; but in this case no advantage can be derived from removing the strangulated parts, as they cease to maintain any living action, and very soon collapse into the form of flaccid bags.

I thought at one time that the best method of employing the ligature was to include at first only a small portion of the disease, with the view of avoiding any risk of exciting more irritation than the part or patient could safely bear; but I am now persuaded

that by doing so, much greater pain and danger of undue excitement are occasioned than by the summary process of tying all the tumours at once. In illustration of this I may mention the case of an eminent provincial practitioner whom I attended many years ago with Dr Abercrombie. He had long suffered from the bleeding of internal hemorrhoids, and was at length reduced to a state of extreme exhaustion. From being a strong muscular man, he had become a feeble emaciated invalid, unable for any exertion of body or mind, with the waxy look, frequent small pulse, and headach in assuming the erect posture, which characterize the state arising from continued depletion. As the tumours were large and numerous, I commenced the treatment by tying one of the smallest, with the view of ascertaining what degree of freedom might be used with the remainder. The ligature separated at the end of two days, but the other excrescences swelled and protruded from the anus to the excessive distress of the patient, who described his suffering as intolerable, and alarmed the neighbours by his cries. As his pulse suffered little alteration in frequency or hardness, and his belly continued free from pain, no apprehensions were entertained as to the result. The inflammation accordingly did not extend beyond the limits

of the diseased growth, the whole of which mortified and sloughed off, leaving the patient as it appeared completely freed from his complaint, though at the expense of much more suffering than had been anticipated. This same gentleman about two years ago again applied to me in even a worse state than upon the former occasion. His feet and legs were œdematous, his pulse was extremely frequent, small, and irregular, and the slightest exertion, such as that of ascending a few steps, always induced an attack of breathlessness that threatened to prove fatal. Though the tumours were nearly twice as large as they had been formerly, I did not scruple to include the whole of their extent in ligatures at once, and with the happiest effect, as he gradually regained the most perfect health both locally and generally without any untoward occurrence.

It is not difficult to explain why a partial operation should produce unpleasant effects. The morbid texture of the hemorrhoidal tumours, like all other formations not entering into the original constitution of the body, being prone to excited action, readily inflames when injured, and suffers more acutely than the natural textures. The slightest excitement is apt to make it swelled and painful, and when it is in part subjected to the ligature, inflammation more or less

destructive of the remainder is thus occasioned, while, if the whole be included at once, the destructive process is accomplished with wonderfully little uneasiness. On the same principle any operation attended with local irritation in the neighbourhood of internal hemorrhoids, is apt to be followed by troublesome consequences from their excitement. A gentleman came under my care for *fistula in ano* with this complication. I advised that both complaints should be remedied at the same time, to prevent the irritation caused by an operation for one of them, from injuriously affecting the other. The patient, however, persisted in requiring the fistula to be cut by itself in the first place, which was done, and followed by a very distressing paroxysm of the hemorrhoidal disease. He returned to the country to recruit his health, and came back some weeks afterwards to have the excrescence removed. Another patient came to be operated upon for fistula, and made no mention of any other ailment. I performed the necessary incision, and a day or two afterwards was surprised to see a large internal hemorrhoid protruding from the wound. He then told me that he had long suffered from bleeding piles; and I expressed my regret that this communication had not been made sooner, as both diseases might have been remedied together,

with less inconvenience than he was then suffering. It happened fortunately that the inflammation proved so intense as to destroy the tumour, which sloughed off, so that the recovery was completed without any farther operation, but certainly, as in the last case, with much more pain and confinement than if the hemorrhoid had been tied when the fistula was cut. Still pursuing the same principle, when any pendulous folds of skin are observed to surround the anus in a case of internal hemorrhoids, I should advise them to be removed with the scissors at the same time the ligatures are applied, lest they inflame and prove troublesome in consequence of the neighbouring irritation.

When the operation is to be performed the patient should take a dose of castor oil, so as to evacuate his bowels previously to it, as they had better not be moved for forty-eight hours afterwards. The hemorrhoids having been fully protruded by a sufficient degree of straining, the patient either stoops forward, resting with his arms on a chair or table; or if a female, lies on one side with the limbs drawn up, so as to expose the parts concerned. The surgeon then introduces the point of the fore-finger of his left hand within the ring which is formed by the morbid growths, and, keeping it there as a guide, transfixes the roots of the tumours in succession with a needle

and double thread, directed from without inwards through the centre of each close to the base. The ligatures, which should be waxed silk, of ample strength, are next to be tied as tightly as possible, each of course including the half of a tumour. Their ends are then cut away as near to the knots as may be, without endangering their security; and the protruded parts are lastly pressed gently back within the sphincter. The whole of the skin surrounding the anus, which is relaxed or distended so as to constitute external piles, is then to be cut away either in separate portions, or in the form of a ring, according to its extent.

The symptoms consequent upon the operation vary with the extent of the disease, and the irritability of the patient. There is seldom much, or indeed almost any complaint of pain until the ligatures are tied; and the patient even then in most cases feels little inconvenience. The suffering which attends the next step of the process, however, is in general considerable, and often very severe, and the patient who may not have winced or groaned during the application of the ligatures, is sure to complain while the scissors are employed to remove the hemorrhoidal swelling. The pain is most intense at first, and usually subsides gradually in the course

of a few hours, until it is little or not at all perceptible. Want of sleep is frequently one of the effects produced, and is sometimes accompanied with nervous excitement, rendering the patient restless. The pulse is seldom much affected, and when it does suffer disturbance, merely becomes quicker without any of the hardness which denotes an inflammatory state of the system. The bowels are constipated, so as not only to cease evacuating their contents spontaneously, but to require laxatives of greater power than is sufficient in ordinary circumstances. Difficulty of making water, sometimes amounting to complete retention, and requiring the catheter to be introduced, frequently occurs, but seldom continues beyond the first twenty-four hours, unless the bladder is unfortunately allowed to become over-distended. When the bowels are evacuated, which they should be not later than the second day after the operation, there is seldom any protrusion and in general no bleeding. Little inconvenience is experienced after the unpleasant effects immediately consequent upon the operation have subsided, until the ligatures separate, which is usually about the end of a week; when a painful feeling is often complained of in the raw surface left by the sloughs, and a little blood is occasionally discharged along with the evacuations. Soon after this the irritated parts regain their natural condition, and all the disagreeable symp-

toms which proceeded from the disease, as well as those caused by the operation, completely disappear.

Such being the consequences of tying internal hemorrhoids, the treatment after the operation may be easily determined. An opiate, containing thirty drops of the solution of muriate of morphia, should be administered to the patient if he complains of pain, and be repeated from time to time if it continues severe, or the want of sleep proves distressing. Fomentations may at the same time be applied to the anus. And if, notwithstanding the use of these means, suffering is still experienced, the hip-bath followed by poultices should be employed. The retention of urine if slight may be relieved by giving the *Spiritus Ætheris Nitrici*, or the camphor mixture; and if more obstinate, will require the catheter to be introduced occasionally so long as it lasts. The patient should restrict himself to the antiphlogistic regimen, and drink freely of simple diluents, such as barley-water or lintseed tea, to lessen the acrimony of the urine. He should also confine himself chiefly to the horizontal posture until the ligatures separate. In general very little requires to be done in the way of treatment, the patient after the first hour or two usually suffering hardly any uneasiness, and even then scarcely more pain than what frequently attends the disease.

CHAPTER THIRD.

PROLAPSUS ANI.

NEXT to fistula in ano, there is no term so frequently applied to diseases of the rectum as *Prolapsus ani*. Whenever protrusion of the lining membrane of the bowel takes place from straining at stool or any other sort of exertion, it is in general supposed to depend upon weakness of the sphincter muscle, and to require mere mechanical support for its relief or remedy. Now in a very large proportion of such cases, I believe not less than 99 in 100—there is no want of muscular power, but merely a morbid thickening of the mucous texture, which swelling so as to occupy and distend the sphincter, prevents it from contracting fully. The so-called “Prolapsus,” therefore, is almost always nothing more than an internal hemorrhoidal growth, of which the removal is sure to afford complete and permanent relief. Considering how readily this may be accomplished, it is painful to reflect upon the number of

persons whose existence is embittered by the constantly increasing annoyances of a complaint not only distressing through its direct effects, but if possible still more subversive of comfort by its enervating influence upon the frame generally. They too frequently either abstain from asking relief, under the impression that their disease is incurable, or aggravate their misery by the employment of mechanical support afforded by bandages recommended to them through the same erroneous impression on the part of their medical attendants.

In order to avoid this mischievous confusion, it should be understood that the protrusions usually comprehended under the title of prolapsus are of two distinct kinds ; one being constituted by morbid growths of the lining membrane, or internal hemorrhoids ; the other consisting of the intestinal coats retaining the natural texture, and simply displaced from their proper position within the sphincter. The latter sort of protrusions occur in consequence of some local irritation such as that of a stone in the bladder, or a morbid state of the bowels inducing violent expulsive efforts on the viscera of the pelvis, and also, independently of any undue force, from a relaxed condition of the sphincter, permitting a portion of the bowel to descend from its own place.

These two forms of the disease might be distinguished as the prolapsus from irritation, and the prolapsus from weakness.

Prolapsus from Hemorrhoids.

With regard to the nature, symptoms, and treatment of this morbid derangement, I may refer to what has been said under the head of Internal Hemorrhoids. But as the diagnosis cannot be too strongly recommended to attention, some additional remarks upon this part of the subject may here be added.

When hemorrhage, pain, or urinary irritation are prominent symptoms of the case, its true nature, though frequently overlooked, is less apt to be mistaken than when little inconvenience is experienced in these ways, and the annoyance chiefly suffered is from protrusion being induced by exertion. It is then that the unfortunate appellation of Prolapsus or "falling down" of the gut is most apt to exclude the patient from any hope of effectual relief, and either consign him to the misery of brooding over his complaint in silence, or deliver him to ignorant and designing empiricism. If it were consistent with the plan of this treatise, I could relate histories of the distress thus experienced in all ranks

and almost every occupation of life during long series of years, with such effects upon mind and body as to suggest the inquiry how far character and conduct may often have depended upon a complaint so strictly local and easily remediable.

Patients labouring under this tendency to protrusion generally suffer more or less from derangement of the digestive organs, attended with various unpleasant symptoms, for which they are wont to require the aid of physic; and as some temporary benefit may be derived from this source, the evil is allowed to pursue its course under a system of imperfect palliation. Such cases afford a fruitful field for the practices of those unprincipled quacks who thrive on the foolish credulity of the upper or affluent classes of society, which leads to entrusting the charge of life and health, not through careful inquiry into professional character, but by blindly following the fashion of the day. These persons constantly impress upon the patient that removal of the local disease would be attended with “the utmost danger;” and so it would,—but to no other interest than that of their own pockets. In the whole course of my practice I never met with an unfavourable result, either immediate or remote, from the operation, when properly performed; and I there-

fore feel no hesitation in recommending the method of treatment which has been explained, as no less safe than perfectly effectual.

It is in this form of the disease that the various plans of treatment for removing *prolapsus ani* by operation proposed by Hey of Leeds, Dupuytren, &c. have been applied. The essential part of all these procedures consists in removing, or otherwise destroying, a portion of the relaxed integuments which surround the anus. In some cases this may prove sufficient, but it is always attended with the double risk of affording only partial relief, and of causing a painful attack of inflammation in the morbid texture allowed to remain; while complete removal of the whole diseased part, as I have advised, by the combined employment of ligature and scissors, while hardly more severe at the time, effectually precludes the occurrence of painful consequences, and the danger of relapse.

Prolapsus from Irritation.

This form of the disease is nearly confined to the period of infancy and childhood. It is not limited in extent to a small part of the gut, but affects so large a portion of it as to occasion a complete invagination of the bowel, and to establish a similar con-

dition to that which, taking place within the abdomen, is named Intussusception. The tumour that appears externally varies in size, but generally resembles an egg or small orange, though sometimes cylindrical in its form.

The descent is usually excited by straining at stool, or vehement crying; and these causes are, for the most part, called into action by some influence of an irritating nature, such as a stone in the bladder, teething, intestinal worms, or chronic inflammation of the mucous membrane of the bowels.

The treatment of prolapsus resolves itself into the means required for replacing the intestine, and those employed for preventing a return of the complaint. In order to attain the first of these objects, the patient should be laid horizontally on his side or back, with the limbs bent on the pelvis, and desired not to hold his breath, which, by compressing the abdominal viscera, opposes the ascent of the gut. The surgeon then grasps the tumour, having previously lubricated its surface with oil, and, gently but steadily compressing its neck with his fingers, while at the same time he urges on the body of the swelling, gradually pushes the protruded parts within the sphincter. In most cases this reduction is easily accomplished. But when it has existed for several

days or longer, the coats of the bowel become so much thickened and painful, that the manipulation requires to be conducted with great care and patience. A compress and T bandage will be proper, should the protruding tendency continue in operation.

The prevention of relapse may be accomplished variously, according to the circumstances of the case. If local irritation be the exciting cause, it must of course be removed; and for this purpose different means will be required, according to its seat and nature. If the source of disturbance is a stone in the bladder, it must be cut out; if ascarides in the rectum, they must be expelled by proper medicines; if dentition, the gum must be scarified, and the ordinary soothing means employed; if an unhealthy state of the mucous membrane, astringents, anodynes, and gentle stimulants of a proper secreting action, together with regulation of diet and regimen, will be necessary. While attempts are thus made to withdraw the source of irritation, the patient should be prevented, as far as possible, from voluntary straining, which is apt to continue through habit. With this view, the bowels ought not to be evacuated in the crouching posture usually assumed by children in doing so, as it renders

the pressure of the diaphragm most direct upon the contents of the pelvis; and the patient should sit upon a chair so high as may prevent his feet from reaching the ground, to keep the trunk erect, and moderate the force of the expulsive efforts. Care also should be taken to prevent him from sitting too long or too frequently at stool.

Prolapsus from Weakness.

The protrusion lastly to be considered is nearly confined to old people, especially of the female sex, but may occur at any period of life. It depends upon want of retaining power in the sphincter; and this may proceed from general debility, affections of the nervous system producing paralysis, or a deficiency of strength in the muscle itself. The tumour is usually of a large size, and if it has been permitted to remain long unreduced, so that the coats of the bowel become thickened and unyielding, considerable difficulty may be experienced in the replacement. After this has been accomplished, through the means mentioned above, the patient should remain in the horizontal posture, with a compress and T bandage carefully applied to prevent removal of the dressings. In other respects the treatment must be varied ac-

according to the circumstances of particular cases, with the view of removing or lessening the want of resistance, on whatever it depends ; and if relief cannot be obtained in this way, the mechanical support of a bandage may perhaps prove useful.

CHAPTER FOURTH.

POLYPUS OF THE RECTUM.

THE rectum is sometimes, though very rarely, the seat of morbid growths from the mucous membrane, to which the title of polypus has been applied, rather on account of their form and origin than from similarity of texture to the growths so designated in other parts of the body. The extreme rarity of this disease may be estimated from the statement of Sir A. Cooper, that in the whole course of his experience he met with only ten cases of it.* He says that it generally occurs in children, and very rarely in adults, and that the most advanced age at which he has met with it was twenty-two. Most of the cases that have fallen under my own observation were in persons who had attained or passed the middle period of life. In five, which once, by a curious coincidence, came

* Surgical Lectures.

under my care, in the course of little more than a fortnight, two were in adults and two in children.

The disease presents itself in three different forms, of which one usually occurs in childhood, and does not appear much beyond puberty. A gentleman now established in practice, not far from Edinburgh, when attending my lectures,—then I suppose about 18 or 19 years of age,—applied to me for the removal of a polypus, such as is met with in early life; but, with this exception, I never met with it beyond the 9th or 10th year. It is extremely soft and vascular, of a florid red colour, and assumes the form either of a worm from two to four inches in length, or of a strawberry with a connecting foot-stalk two or three inches long. This tumour seldom protrudes except when the bowels are evacuated, and then admits of ready replacement, though not without occasional and considerable hemorrhage. The vascularity of this growth, and its attachment above the sphincter, made me averse from removing it by excision; and Sir A. Cooper has mentioned the alarm that was on one occasion excited in his practice by doing so. I have always employed the ligature; and though the soft texture readily gives way when the thread is drawn, bleeding has never occurred in a single instance, or any other symptom in the least degree dis-

agreeable resulted from this mode of removal : I am therefore induced to regard it as the best that can be employed.

In adults the disease appears in two very distinct forms. In one of these, the growth is soft, vascular, prone to bleed, lobulated or shreddy, and malignant-looking, but possesses a peduncle or foot-stalk, sometimes capable of sound cicatrization after being divided. The profuse, frequent, and protracted bleeding which proceeds from this sort of growth, renders its removal an object of great consequence ; and this may be effected very easily, with perfect safety, by transfixing the radical cord of connection with a double ligature, tying the threads so as to include a half of it in each, and then cutting it across a little below the constricted part. In a patient of Mr Craig of Ratho, who detected the disease from the great hemorrhage it occasioned, I could not accomplish protrusion of the tumour, but guided a ligature on my finger, and tied it on the neck within the rectum. It is more satisfactory to force or draw the swelling beyond the sphincter, so that the sound and morbid parts may be distinguished with certainty, and this can usually be done with great facility, although the growth has attained a large size. In a hospital case recommended by Mr Anderson of Castle-Douglas,

I brought into view and removed a tumour not less than an orange, which had a most malignant aspect, and had nearly exhausted the patient by hemorrhage.

In the other form which polypus of the rectum assumes in adults, the tumour is of a firmer consistence, smoother surface, and more regularly spherical or oval form. The symptoms resulting from this simple swelling are rather annoying than seriously alarming; and the patient, therefore, is apt to delay requiring assistance for a long while. In the case of an old lady, whom I saw with Mr Hilson of Jedburgh, the tumour was about the size of a cherry, with a long stalk, and we were assured had protruded every time the bowels moved for twenty years. In another case, a gentleman whom I saw with Dr Johnston of Cumnock, the tumour was nearly as large as an egg, had a cuticular covering, and appeared to have existed for a period equally long. I have always removed these growths in the way that has been already described, and never met with the slightest consequence of a disagreeable kind.

While this sheet is passing through the press, I have under my care a patient who came from the country on account of a *fistula in ano*, which had been twice cut, under the impression that it did not communicate with the gut. Having found an internal

opening in the usual situation, I divided the septum, and filled the cavity with lint. Upon visiting the patient a few days afterwards I was surprised to see a lobulated tumour nearly the size of a pullet's egg protruding from the wound, and then learnt that for twelve or thirteen years there had been occasionally a partial protrusion of this swelling, but not to the full extent which had resulted from the additional freedom afforded by the incision. Ligatures were immediately applied, and the patient now seems to be completely relieved from his complaint.

CHAPTER FIFTH.

STRICTURE OF THE RECTUM.

THE rectum, like the œsophagus, which it resembles in many other points of structure, function, and morbid derangement, is liable to stricture of two different kinds. In one of these there is merely contraction of the coats, with thickening and induration of their texture. But in the other there exists a morbid growth, attended with the symptoms, and prone to the changes, which characterize malignant degenerations of structure. Want of attention to this very obvious and necessary distinction has led to great misapprehension in regard to the nature of the disease, and serious errors of practice in its treatment. By some it has been looked upon as always admitting of remedy at an early stage, and by others it has been considered always incurable; while the good effect of introducing bougies in cases of the simple or non-malignant kind has encouraged those

who supposed the stricture to be constantly of a carcinomatous nature, to expect benefit from the employment of pressure in the treatment of cancer occurring in other parts of the body.

Simple Stricture of the Rectum.

The simple stricture is seated very near the lower extremity of the rectum, a little within the sphincter, about two inches or rather more from the anus. It is here that the gut changes the direction of its course, and after following the curvature of the sacrum, makes a sudden turn outwards to its termination. There is thus formed a sort of angular projection by the posterior surface of the bowel, which may be supposed likely to increase when subjected to continued irritation of any kind, and at length to constitute an inconvenient degree of contraction. It has been maintained that this is not the sole seat of stricture in the rectum, and that the disease frequently occurs farther up the canal, especially at the distance of five or six inches from the anus. Indeed, some have gone so far as to profess their ability not only to recognise, but to treat it successfully when seated beyond the rectum altogether, in the sigmoid flexure of the colon. That contractions of the great intestine may occur in any part of its course, I do not

mean to question. But that the thickening and induration of its coats are in such cases usually confined to the narrow limits which constitute a stricture in the ordinary acceptation of this term, or that the strictured part when so situated can ever be accurately ascertained, and efficiently dilated by the use of instruments, I have no hesitation in expressing my unqualified disbelief.

It is very natural for persons suffering from constipation to suppose that obstruction of the bowel is the cause of their complaint; and they are consequently ready to believe in the existence of stricture, when it is intimated to them by their medical attendant, especially if, at the same time, hopes of relief are held out from the employment of mechanical treatment by dilatation. There is too much reason to fear that unprincipled practitioners have taken advantage of this facility in the disposition of their patients to promote their own unworthy views. But I should be sorry to allege, that either the supposed discovery or the treatment of strictures high up the rectum necessarily implied a want of good faith; since the practitioner is hardly less exposed to deception than the patient; and if he examine the rectum, under an impression that there is a stricture existing in it, he will be very apt to believe that he

has found one. In the feeble and unhealthy persons who are usually suspected to labour under the disease, the coats of the rectum are so thin and relaxed as readily to catch the point of the bougie employed for exploring the cavity, and thus impede its progress, which is also apt to be arrested by the promontory of the sacrum. As an instance of this, I may mention the case of an elderly lady whom I saw with Dr Begbie. She had been supposed to suffer from stricture of the rectum, between five and six inches up the gut, and had been subjected to treatment for it during several years before coming under Dr Begbie's care, by two gentlemen of the highest respectability in this city. Finding that the coats of the rectum, though greatly dilated, were quite smooth, and apparently sound in their texture, so far as my finger could reach, and conceiving that the symptoms of the case denoted a want of tone or proper action, rather than mechanical obstruction of the bowels, I expressed a decided opinion, that there was no stricture in existence. Not many months afterwards the patient died; and when the body was opened not the slightest trace of contraction could be discovered in the rectum, or any other part of the intestinal canal. One of the gentlemen who had been formerly in attendance was present at this exa-

mination ; and wishing to know what had occasioned the deception,—which he said had led to more than *three hundred hours* being spent by himself and colleague in endeavours to dilate the stricture with bougies,—he introduced one as he had been wont to do, and found that, upon arriving at the depth it used to reach, its point rested on the promontory of the sacrum. Other cases might be mentioned to illustrate the uncertainty of information as to the capacity of the higher part of the rectum, obtained by exploring the gut, and to show how far the best-intentioned practitioners may be misled by the sources of fallacy I have endeavoured to explain.

If the symptoms of stricture of the rectum could be traced at an early stage of the disease, difficulty in evacuating the contents of the bowels would probably be their most remarkable feature. But the complaint almost always steals on insensibly, so as not to attract attention until fully formed ; and then the inconveniences experienced are so different from what might be expected, that they tend rather to obscure than to indicate the nature of the complaint, which is therefore seldom suspected by the patient. There was in the hospital here a woman admitted on account of a *fistula in ano*, in whom, on introducing my finger into the rectum, to guide the

knife in dividing the septum, I found a stricture in the ordinary position, so tight as to exclude any thing larger than a moderate-sized urethra bougie; yet she had been quite unconscious of its presence, though the symptoms proceeding from it were extremely severe. The reason of this is, that the effects of a confirmed stricture are in general the frequent, often almost incessant discharge of thin feculent matters, owing to the copious secretion of mucus which results from the irritation of the disease; and that the thin slimy stools, occasionally tinged with blood, attracting more notice than the small indurated masses of feces passed along with them, make the case assume the appearance of diarrhœa. The mistake thus committed not only prevents the proper means of remedy from being employed, but leads to the administration of astringents and anodynes, which must prove hurtful, by checking the process instituted by the system for its own relief. This consists in the copious secretion of fluids into the cavity of the great intestine, which lessens the solidity of the feculent matters, and facilitates their passage through the narrow channel remaining for their escape. Being forced down upon the stricture by the violent efforts to unload the distended bowels, a small

quantity is urged through the stricture, and issues from the anus in a sudden jet, as if propelled by a squirt. The chief character of the disease in its advanced stage, then, is the frequent squirting out of thin feculent matters, containing no solid masses, or only very small ones, and mixed with blood or mucus, accompanied by a sensation of cutting or burning in the rectum. In addition to this the abdomen is distended, partly by retention of its feculent contents, partly by tympanitic swelling, caused by derangement of the bowels. Pain also is felt in the sacrum, extending down the limbs; and abscesses frequently form in the vicinity, so as to lay the foundation of *fistula in ano*. In this case the sinus does not, as has been alleged, open into the gut above the contracted part, but holds its usual position near the anus, and should be regarded rather as an accidental consequence of the neighbouring irritation, than as a direct effect of the stricture.

The disease is met with more frequently in females than males, and generally occurs about the middle period of life. It is extremely distressing, and if not remedied may at length prove fatal, by gradually exhausting the patient's strength, or exciting inflammation of the bowels. Some years ago I attended a gentleman for *fistula in ano* together with stric-

ture of the rectum. Not long afterwards he told me that his wife complained of symptoms similar to those he had suffered from the latter ailment. I proposed an examination of the rectum, which was declined, and I heard no more of the patient, until raised one night by an urgent request to visit her immediately. She was labouring under the symptoms of peritonitis in its advanced stage, and died before the end of many hours. The rectum was contracted almost to obliteration at the usual part. Instead of terminating thus abruptly and violently, the disease more frequently, when it proves fatal, gradually exhausts the strength of the patient, by the continued uneasiness and derangement of the digestive functions which attend it. Extreme emaciation and hectic irritation are thus induced; and unless some other disorder occurs to arrest his sufferings, he at length sinks under the complaint. The progress of such cases is by no means rapid; and the disease after attaining a certain extent often seems to remain stationary; so that there is usually ample opportunity for its discovery and treatment.

From the slow and insidious formation of stricture in the rectum, it is not easy to ascertain the circumstances which give rise to it. The analogy of what happens in other mucous canals would lead to the

supposition that continued irritation of the gut is probably the immediate exciting cause. But the precise way in which this state is occasioned, or why, when its other effects are so common, it should so rarely produce the effect in question, are points that have not yet been satisfactorily made out.

In the treatment of the disease some temporary relief may be derived from injecting tepid water or oil into the rectum, to soothe the irritation of its coats, and facilitate the discharge of its contents. But as the patient cannot be freed from his complaint by such means as these, it is necessary to inquire how the gut may be restored to its natural capacity. Of the means employed to remedy strictures of mucous canals in general, namely, the caustic, the knife, and the bougie, the two last mentioned have alone been resorted to in treating stricture of the rectum. Division of the contracted part with a cutting instrument, notwithstanding the obvious risk of hemorrhage and inflammation incurred by doing so, has been occasionally practised; and with such speedy as well as complete relief, that some practical writers regard this method as the one which ought to be preferred. But experience having ascertained that, in certain conditions of a constitutional and local kind, wounds of the rectum, even though of very small extent, are fol-

lowed by serious or fatal consequences ; and as the bougie, though not so speedy in its operation as the knife, being in general equally effectual, and not exposed to the same objection, prudence seems to require that the practice of incision should be either entirely abandoned, or only used in particular cases with extreme caution. The best instrument for the purpose is the blunt-pointed curved bistoury ; and the stricture should be either divided backwards, in the direction of the sacrum, or notched at different parts of its circumference by cuts of smaller extent. A young lady was brought here in a state of great exhaustion from the severe and protracted suffering caused by stricture of the rectum. It had been dilated by bougies without any relief, and when I saw her, had contracted to the size of a quill. Large quantities of mucus were discharged—and a fistulous communication with the vagina had recently taken place. In these circumstances I considered myself warranted to employ incision, and did so with the effect of completely removing the local complaint and restoring the general health.

The use of bougies in removing strictures is a remarkable example of good practice, originating from false principles. It was at first adopted with the view of destroying obstructions of the urethra through the

effect of medicinal substances, which were in this way applied to the contracted part of the canal. And when experience had proved that bougies of the simplest composition, as those constructed of metallic substances, were not less effectual than those of the medicated kind, the process of improvement was next ascribed to the dilatation acting merely mechanically as on a tube of dead matter. Hence it was thought impossible to introduce the instruments too frequently or for too great a length of time. At least once a day was thought essential; and they were permitted to remain for hours at a time. But the contracted canal is not composed of dead substance, and the stricture depends upon a peculiar morbid action of the living texture. The beneficial effect of the bougie, therefore, must consist in the excitement of another action opposed to the one formerly in operation, and capable of restoring the gut to its natural state.

It is the effusion of organizable matter into the cellular texture of the part that causes the stricture, and it is the absorption of this deposit which removes the disease. The bougie by effecting pressure excites the action of absorption. And if the pressure be too great, too long continued, or too frequently repeated, there will be a risk of causing more than sufficient irritation for the purpose; and of inducing

again the very condition it is employed to counteract, the consequences of which must be a confirmation and increase of the disease. The perfection of treatment by means of the bougie may thus be considered to consist in using it merely to the extent requisite for producing its beneficial effects; and this is now fully ascertained to be much less than might at first view have appeared possible. Instead of requiring to be introduced daily, and to remain in the passage for hours, it appears that the bougie causes a sufficient degree of excitement if used every third or fourth day, and withdrawn immediately after being passed through the stricture. Under this system the improvement not only advances at least as quickly as when the operation is performed more frequently, but it is likewise much more sure in its progress, and much less apt to be interrupted by an undue irritation of the part concerned. These principles now regulate the treatment of stricture in all the mucous canals which are subject to it, namely, the urethra, œsophagus and rectum.

Rectum bougies are constructed of various materials; and from the facility of guiding them through the stricture, owing to its position in the vicinity of the anus, the composition of the instrument is of less consequence, than when the disease is seated in the

urethra or œsophagus. Metals, wood, glass, and cloth made up with plaster or elastic gum may be employed. But, on the whole, those formed of iron and elastic gum are the most convenient. The former are cheap and imperishable, the latter are more expensive and liable to decay, but perhaps more easily introduced and less hurtful to the feelings of the patient.

When the operation is to be performed the patient should be placed upon his side, and then the surgeon, having in the first place satisfied himself as to the precise position of the stricture, by feeling it with his finger, passes a bougie lubricated with oil or lard up to the obstruction, and presses against it steadily but gently. If the resistance cannot be overcome without using force or causing pain, he withdraws the bougie, and tries a smaller one in the same way, thus proceeding until he gets one to pass through the contraction, immediately after which he withdraws it, and concludes the process for that time. If necessary some soothing means, such as an opiate injection, or the hip-bath, may be employed to allay any undue irritation that has been excited even by this cautious proceeding. At the end of three or four days, or a longer interval, if the patient continues to suffer from the former operation, the bougie

which was introduced upon that occasion is again passed, and followed up by another of larger size ; and thus the treatment is carried on until the disease ceases to occasion any inconvenience, and a full-sized bougie can be introduced with ease.

Malignant Stricture of the Rectum.

There has been some difference of opinion as to the comparative frequency of simple and malignant stricture of the rectum ; but from my own observation, I should say that the latter is, out of all proportion, more often met with than the former. It generally occurs in the same part of the gut as the simple stricture, but is not so limited or regular in its extent. The diseased growth is sometimes confined to one side of the gut, at others it affects the whole circumference ; and it is only in the latter case that there is stricture properly speaking, though it is usual to designate by this title all morbid growths occurring in the coats of the rectum. The swelling is usually of a very irregular form, and seldom extends less than several inches along the gut. Occasionally it descends quite to the anus, or even shows itself externally, so as to simulate a pile, for which I have often known it mistaken and treated ; but more frequently it leaves the coats of the intestine

free for an inch or two within the sphincter. The morbid growth generally possesses a moderate degree of firmness, and exhibits characters intermediate between those of carcinoma and medullary sarcoma. It encroaches on the cavity of the rectum so as to impede more or less the evacuation of the bowels, and being attended with the symptoms which are wont to proceed from degenerations of a malignant kind, occasions great and almost unceasing distress. The patient complains of a shooting or fixed dull pain in the back, at the upper part of the sacrum, and extending down the limbs, together with a sense of weight and uneasiness in the part affected, especially after evacuation of the bowels, or the operation of any circumstances causing irritation of the disease. He passes blood and purulent matter along with his stools, which are thin and frequent; and though in the early stage of the disease difficulty may be experienced in passing them through the thickened coats of the gut, there is for the most part ultimately rather an inability of retention from the action of the sphincter being impeded by the progress of the disease. His countenance displays the greenish-yellow complexion characteristic of malignant disposition in the system, and he loses flesh as well as strength. On examination the gut is found not only contracted, but thickened

and irregular on the surface. The coats at the affected part are hard and unyielding, and the morbid growth is felt projecting into the cavity, sometimes in the form of rounded tubercles, at others rough with ulcerated depressions. As these changes, judging from touch alone, do not differ except in degree from those which attend the simple stricture, it would often be difficult to determine the nature of the complaint merely by local examination. But the symptoms which accompany it are so well marked, that the disease can hardly be either overlooked or mistaken. In its progress the patient becomes generally exhausted, and falls into a hectic state, which is soon followed by dissolution.

In common with other malignant affections, carcinomatous stricture of the rectum does not admit of being remedied by any kind of treatment directed with the view of restoring the diseased part to its natural state; and its situation forbids any prospect of benefit from removal by the knife or any other means.

In these circumstances, palliation is all that can be reasonably attempted; and for this purpose opiate injections with the hip bath are very useful. The patient should be enjoined to abstain from every kind of stimulating food and drink, and also to avoid

any exertion of body likely to aggravate the complaint, resting as much as possible in the horizontal posture. The introduction of bougies, and all other operations not only can do no good, but must ever produce an injurious effect, by increasing the irritation of the disease, and accelerating its progress. It appears that a considerable portion of the rectum, even to the extent of a couple of inches, may be cut out without any very serious bad consequences in the first instance. But the patient can experience no benefit from this being done, and, in addition to the pain of the operation, must have an impulse given to the morbid action. And if there are any cases in which this excision of the rectum has been followed by a permanent cure, the disease could not have been of a malignant nature. It may seem unlikely that so severe a proceeding should ever be resorted to except in cases the most hopelessly incurable by other means. But, so far from this, however startling and incredible it may appear, the fact is, that removal of the extremity of the rectum has been taught and practised in this city, as the best mode of treating those hemorrhoidal affections which are generally comprehended under the title of *prolapsus ani*. That a complaint which, as has been shown above, may be certainly remedied

with little pain, no danger, and without any injury to the natural structure, should be thought to require an operation so dreadful in its performance and effects, as cutting out the end of the bowel, together with its sphincter, is to be deeply regretted, as well for the credit of surgery as the good of humanity. It is needless to say that, after this extirpation has been performed, the healing of the wound is attended with an extreme contraction, I have heard even obliteration of the gut ; and the patient must consequently, like the victim of the ancient operation for fistula, suffer from the united miseries of constipation and incontinence.

It is possible that cancer may occur at the verge of the anus, as it does in the somewhat similar texture of the lip, and then excision may be practised without any impropriety. But cases of this kind are extremely rare, and should be carefully distinguished from those in which the coats of the bowel are implicated, where the knife can never be prudently or beneficially applied.

CHAPTER SIXTH.

FISSURE OF THE ANUS.

THERE is probably no disease of the human body that gives rise to so much uneasiness in proportion to its extent, or admits of remedy with so much certainty and upon so easy terms as the one now to be considered. Although well described nearly half a century ago by the distinguished French surgeon, M. Boyer, it has only of late years attracted much notice in this country; and is still by no means so familiarly known either as to its diagnosis or treatment as might be desired.

The disease is usually met with in people between 20 and 50 years of age. It consists of a small ulcer scarcely exceeding half an inch in length and about a line in breadth, seated between the folds of the skin which surrounds the orifice of the rectum. The morbid surface being of such limited extent and lurking so deeply it cannot be brought into view except by expanding the anus. In ordinary circum-

stances this may be done without any difficulty, but when a fissure exists it is impeded by two very embarrassing obstacles. For, in the first place, the superficial fibres of the sphincter are strongly contracted by the irritation of the ulcer, so that the orifice, instead of presenting a conical hollow leading to it, appears like a minute perforation on a flat surface; and secondly, there is generally a small firm red coloured pile, like a pea in size and form, at the base or outward extremity of the fissure. It tends not only to conceal the sore, but to render its exposure more painful. To a practised eye, indeed, the peculiar form, consistence, and colour of this little swelling afford a good guide to the seat of annoyance; but it much more frequently misleads to the idea that there is no local complaint, or only an external hemorrhoid. In some rare cases the ulcer is seated altogether within the sphincter, and then can be recognised only by means of a speculum or experienced finger, which detects it by the same sort of feeling that would be found by placing the finger upon a button hole, from the base and margin being always thickened and indurated, so as to render the form distinctly perceptible notwithstanding the small extent of surface.

In both of these situations, the disease gives rise to nearly the same symptoms. There is always acute

sensibility of pressure, which renders every attempt at examination extremely painful,—in irritable persons causing an approach to syncope or convulsion, and upon all occasions distressing expressions of intense suffering. Evacuation of the bowels is attended with pain, generally not so severe at the time as a short while afterwards, when it becomes very distressing and acute for half an hour or more. There is frequently a discharge of blood and mucus along with the purulent matter, but not in any large quantity. Sitting is painful, and the patient may be noticed to rest with one hip on the corner of his chair, so as to protect the anus from pressure. Uneasy sensations are often experienced at a distance from the part affected; especially shooting down the limbs, so as to simulate sciatica or rheumatism, and causing symptoms of urinary irritation so strongly marked as to remove all suspicion of the rectum being the seat of disturbance. In many of the cases that have fallen within my observation, the disease had thus escaped detection; and I have met with patients who, during a long course of years, had sought in vain for relief throughout the great cities of Europe—being treated for irritation of the bladder or urethra, while their complaint depended upon fissure of the anus, or ulcer of the rectum. There are few occa-

sions on which the exercise of surgical art is more satisfactory than the instantaneous and complete recovery of such cases by the simple and gentle means immediately to be mentioned.

The causes concerned in the production of fissure are very obscure. It seems most probable that some accidental laceration or abrasion of the lining membrane lays a foundation for the disease; and that such may be the mode of production is proved by the occurrence, very rare, it is true, of fissures presenting the most characteristic features after operation for the removal of hemorrhoids. But whether a mechanical lesion be essential as an exciting cause, or only partially and occasionally concerned in their establishment, remains to be ascertained.

In the treatment of fissure all sorts of applications, whether soothing or irritating, have been found unavailing, and from Boyer downwards it has been a settled principle that incision affords the only effectual remedy. But the extent of incision really requisite is very different from that hitherto recommended. Boyer supposing that the spasmodic contraction of the sphincter was the obstacle to recovery, considered complete division of the muscle necessary. After suitable preparation of the patient he guided a straight bistoury upon his finger into the rectum

and then cut through "the coats of the intestine, the sphincter, cellular texture, and integuments." The wound was stuffed and not dressed again for several days. It healed, he says, generally by the end of a month or six weeks, but sometimes required two or three months before cicatrization was perfectly effected. Instead of this very severe procedure, I am warranted by ample experience to state that it is sufficient to cut through the fissure in its long direction, and as the ulcer does not affect any other texture than the mucous membrane, thus limit the incision to this membrane. The best instrument for this purpose is a sharp-pointed curved bistoury, and the most certain mode of employing it to attain the object in view, without cutting more than enough, is to transfix the base of the ulcer, so as to cut through it inwards upon the finger previously introduced as a guide. This little operation is neither difficult nor painful. It does not cause the loss of more than a few drops of blood, and the wound, as it requires no dressing, heals in the course of a few days.

CHAPTER SEVENTH.

SPASMODIC STRICTURE OF THE ANUS.

THE derangement known under this title, which is perhaps not very correctly applied, consists in a permanently contracted state of the sphincter, or rather the external part of this muscle which lies immediately below the integuments. The skin surrounding the orifice is in consequence so drawn together, that, as I have mentioned with regard to the condition connected with the presence of a fissure, there is no longer the conical hollow usually perceptible as a sort of vestibule leading to the bowel, when the nates are held aside; but in its stead a flat surface, having in the centre a small perforation, of which the thin lip is firmly closed. If the finger by gentle efforts be gradually insinuated through the anus thus altered, it feels a strong compression in the seat of the external sphincter, as if enclosed in a ring of India rubber on the stretch—and in addition to this permanent force an occasional increase

of tightness from spasmodic action of the muscle, the patient at the same time complaining of excessive pain.

If the contraction exists, as it generally does, along with fissure of the anus, it aggravates the symptoms of that complaint by causing pressure on the ulcerated surface. But if it is not thus complicated, the principal inconvenience sustained is difficulty in effecting evacuation of the bowels, which, when felt by the patient as if about to be accomplished, is all at once prevented by an insuperable resistance. By means of injections into the rectum, if they can be introduced, which is not always the case, and the use of medicines that produce watery stools, some degree of benefit may be obtained, but there is of course no complete relief so long as the constriction remains.

This contracted state of the sphincter is so generally associated with fissure of the anus, that it has usually been regarded either as the same or an effect of that disease. The latter of these views seems the more reasonable of the two, and agrees with the important fact, that when the morbid conditions in question exist together, curing the fissure relieves the stricture. But the muscular contraction is sometimes though rarely met with independently of any other ailment, and must therefore admit of being

established without the influence of local irritation. After the operation for hemorrhoids, spasmodic stricture sometimes occurs in its most perfect form, even when there has been formerly very large protrusions, and apparently an almost complete want of muscular power, and it is therefore necessary to beware of treating with inattention any complaints suggesting such a change having taken place, however unlikely it may seem to be.

Dilatation of the contracted sphincter is extremely painful, and if carried on by the persevering use of bougies or other means, does not afford the slightest relief; as the muscular ring, however much expanded when freed from the distending influence, immediately resumes its former straitness. While the ordinary treatment of stricture proves thus inefficient, it is fortunate that another mode of proceeding affords instant and complete relief. This consists in dividing the contracted fibres of the muscle, which may be done most easily by introducing a sheathed bistoury into the anus, and withdrawing it after expanding the blades. The incision requires to be of very moderate extent, hardly exceeding an inch either externally or internally, and should be made at one side, towards the tuberosity of the ischium. A piece of dry lint may be inserted between the edges of the

wound to prevent bleeding, and then any simple dressing applied to the surface will be sufficient until cicatrization is completed. A bistoury introduced upon the point of the finger, and carried outwards to a sufficient distance, will also attain the object in view. And if the operator feels doubtful of being able in this way to regulate the incision within the proper limit, he may, after introducing his finger so as to distend the contracted ring, divide it by inserting the knife beyond its outer edge and cutting inwards.

THE END.

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