III.

A Practical Treatise on Hemorrhoids or Piles, Strictures, and other important Diseases of the Rectum and Anus: Being, with some additions, a Treatise, to which the Jacksonian Prize was adjudged by the Royal College of Surgeons. By George Calvert, Member of the Royal College of Surgeons of London, and of the Medico-Chirurgical Society, &c. London, printed for Callow and Wilson, Prince's Street, Soho. 1824.

This is a particularly disagreeable book, either for the purpose of reviewing, or giving an account of its contents. Distinguished neither by remarkable excellencies nor by gross faults, it is written in that happy style of mediocrity which is said to be endured neither by gods nor by men.

"Too bad for a blessing, too good for a curse, I wish from my heart you were better or worse."

Communicating information neither absolutely new, nor entirely unworthy of being known;—written neither with careless ignorance, nor with a proper display of elaborate research;—adorned neither by any original theory, or remarkable novelty of practice, it is extremely difficult to fix on any one circumstance as a leading character of the work. Books however of this description are sometimes useful, and the present is not a bad example. It collects into one body all the information which is diffused among the pages of some half a score of surgical and medical authors, concentrates whatever useful matter is to be found on the subject in the writings of Stahl, Cullen, Wiseman, Morgagni, Abernethy, Chaussier, De Larroque, Dessault, Pott, Ware, Charles Bell, Copeland, White, and even Howship; and endeavours to deduce from them whatever is sound in theory, and expedient and useful in practice.

The subject is Diseases of the Rectum and Anus; and the author discusses it in seven Chapters, under the following heads;—Hemorrhoids, Strictures of the Rectum, Morbid Contraction of the Anus, Prolapsus Ani, Fistula in Ano, Ulcers of the Rectum, and Excrescences, &c. about the Anus and within the Rectum. Each Chapter is subdivided into a certain number of Sections, more or fewer according to the importance of the subject,—in which, after premising sundry general observations, the author describes the symptoms, unfolds the pathology, and delivers the treatment of each disorder. The ar-
rangement is distinct, and, upon the whole, is tolerably well observed; but the minuteness of the subdivision makes the book appear longer and more complicated than it actually is; and the author's mode of writing, which is somewhat diffuse, does not tend to counteract this effect. Perhaps the greatest fault of the work is want of condensation.

It is not our intention to follow Mr Calvert through all the devious windings of each Chapter; and we shall account our duty as passably well performed, if we glance merely at the most essential parts of his treatise, and if we attempt to communicate some general idea of the manner in which he treats of the several subjects which come successively under review.

To form a distinct and adequate notion of the diseases incident to the rectum, it is requisite to remember three circumstances; first, that the inner or free surface of that bowel is a mucous membrane, liberally supplied with blood-vessels from three large arterial trunks; secondly, that its outer or attached surface is connected to the contiguous parts by a peculiar cellular tissue which is described as very loose and very extensible, and which, even in the most slender subjects, is copiously supplied near its lower extremity with fat; and thirdly,—that the lower extremity or termination of the gut is furnished with two muscular organs, one of which retains it constantly closed, unless at those times when its power is overcome by the superior resistance of the diaphragm and abdominal muscle, while to the other is allotted the function of occasionally raising the extremity of the bowel, or drawing it, as it were, within its own cylinder. This arrangement of parts, with the several properties which belong to each component tissue, impresses on the diseases of the bowel and its lower extremity, that diversity of character and modification of symptom, which renders them at one time the subject of attention to the physician, at another to the surgeon, and not unfrequently demands for their successful removal the simultaneous cooperation of general and of local treatment. Thus the mucous membrane is the seat of disease in piles, in stricture, and in ulcers of the rectum; fistula ani always originates in disease of the surrounding cellular substance; morbid contraction of the anus appears in most cases to be the joint result of the muscular structure, and the inflammatory susceptibility of the lower extremity of the bowel in certain habits; and prolapse is very often dependent on a morbid state of the mucous surface acting on the muscular tissue and loose cellular membrane; while excrescences may be the result of primary morbid states, either of the mucous membrane or of the skin with which it is continuous. These considerations would
have suggested to Mr Calvert a more natural and not less convenient arrangement than that which he has adopted; and would have enabled him to furnish a delineation in which the reader would have been led by a gradual transition from one part to another of his subject. In this manner the sixth chapter, on ulcers of the bowel, would have succeeded the first, or at most the second; the fifth chapter would have with more propriety have become the fourth; while the third and fourth would have then followed in order, if not as a suitable introduction to the seventh, at least as a proper termination to the previous chapters. In our subsequent remarks, we adhere to this arrangement.

Hemorrhoids, or Piles, the first subject treated by Mr Calvert, occupies a large proportion of his attention; and in this we shall not imitate his example closely. The history and pathology of this disease, especially in its active form, has been so completely and so successfully explained by Cullen, that it is almost in vain to think of adding to it with the hope of improvement. Accordingly, we find little on this subject which can reasonably be termed new. An erroneous physiological system, and ignorance of the actual fact, gave rise to the opinion, that the hemorrhoidal discharge proceeded from certain veins, which the same physiological system termed hemorrhoidal. Mr Calvert adopts what is the more correct opinion, that this blood issues from the exhalants, or minute capillaries of the mucous membrane of the bowel;—an inference which is confirmed, not only by the phenomena exhibited by the bowel in this morbid state, but by what pathological anatomy teaches in regard to the hemorrhages of mucous membranes in general.

It is somewhat different with hemorrhoidal tumors. These Mr Calvert properly represents as of two kinds; first, the firm fleshy tubercular masses which form the proper and genuine piles; and, secondly, the dilated vein, or hemorrhoidal varix; and though both have been confounded and considered identical by several practical writers, our author shows that their morbid structure is essentially different, and that there are just grounds for distinguishing them.

The opinion, that hemorrhoidal swellings depend invariably on an enlarged or varicose state of the veins of the bowel, appears to have been entertained not only in former times by Wiseman and Morgagni, but has been recently supported by Baillie, Sir Everard Home, and Mr Charles Bell,—the last of whom represents the hemorrhoidal tumor as "a firm fleshy excrescence, resulting from deposition of lymph and thickening of venous coats, with the extremity of the vein concealed within;"
and which, bursting from time to time, discharges blood when the gut is subjected to any considerable distention. This condition, however, though it occurs in a few instances, is by no means general. Mr Calvert quotes, after Montegre, the authority of Le Dran, to prove that the structure of the common piles is spongy or cellular, and of Richter and Cullen, to show that effusion of blood in the cellular tissue was concerned in their formation. The list might have been considerably enlarged, by referring to the works of Latta, * Benjamian Bell, † Professor Callisen, † Monteggia, § Delpach, || and other modern authors,—all of whom agree in representing the hemorrhoidal tumour as consisting chiefly of extravasated blood. The authority of Chaussier and Larroque is then adduced, to show that these bodies consist chiefly of a reddish homogeneous parenchyma, which discharges, when pressed, pure bloody serum, or limpid serous fluid, and which may be rendered white by washing or maceration.

"It should be remarked," says Larroque, "that even in cases where there are varicose veins, this cellular parenchyma is never wanting; so true it is, that to its development the formation of hemorrhoidal tumours must be attributed. In general, wherever veins are discovered, they are placed between the exterior and this organized tissue, and are lost in very minute ramifications. This ge-

* "The hardness of the large blind piles already mentioned, is occasioned by an effusion of blood into the cellular substance which surrounds the veins of those parts; for though, in the beginning of the disease, the veins certainly do dilate without bursting, yet this cannot be the case where they have attained to any very considerable size; and in general we may always conclude, that unless when the hemorrhoids are soft and easily compressible, there is undoubtedly an effusion of blood into the surrounding cellular substance."—A Practical System of Surgery. By James Latta, Surgeon in Edinburgh. Edinburgh, 1795. Vol. ii. Chap. iv. p. 34.

† "These tumors have commonly been supposed to proceed from a mere dilatation of the hemorrhoidal veins. In the incipient state of the disease, while they remain small and circumscribed, this may frequently be the case; but whenever they become large, they will almost constantly be found to be connected with an effusion of blood into the contiguous cellular substance."—A System of Surgery. By Benjamin Bell, Member of the Royal College of Surgeons of Edinburgh, &c. &c. Edinburgh, 1801. Vol. vi. 7th Edition. Chapter xxxiv. p. 324.

‡ Henrici Callisen, Systema Chirurgiae Hodiernae, Hafniae, 1817. Vol. ii. Edito 4ta. "Hujus morbi principium est expansio varicosas vasorum hemorrhoidalium in cavam vel mesaraicam venam se exonerantium, vel etiam sanguinis in telam vicinam effusio; neque arteriae vicinae ab loco morbo plane immunes sunt, e quibus ab auco impulso sanguinis cruro transudare et vel in cellulosa vicina accumularente potest, vel sanguifluxum inducere." Vol. ii. clxvii. p. 126.

§ Istituzione Chirurgiche. Di G. B. Monteggia. Milano, 1816. Volume viii. Capo xv. 389. p. 198.

|| Precis Elementaire des Maladies reputées Chirurgicales. Par J. Delpach, Conseiller Chirurgien du Roi, &c. &c. Paris, 1816. Tome iième. Section viii. Chap. i. § ii. p. 262.
neral disposition of the veins is an additional proof that these hemorroidal tumours do not proceed from varices, for in that case they would be found distributed in the body of the tumour, and not upon their surface." p. 33.

This differs not materially from the opinion of the author, who describes the interior of these tumours in the following manner:

"These tumours very often contain a central cavity, filled with fluid, or coagulated blood, which is of a brighter or darker red according to the length of time it has been effused. The lining of the cyst is either smooth or granulated; and by the assistance of the microscope in the dead subject, after having forced into the arteries by which they are supplied with blood some fine and coloured injection, a few minute vessels may be traced, through which the fluid gradually exudes into the above-mentioned cavity; but there is evidently no connection whatever with any of the larger vessels.

"This cavity is usually small, not exceeding the size of a pea, but it is sometimes large enough to contain several drachms of blood.

"More generally, however, there is no regular cyst, but the substance of the tumour is infiltrated with blood, which eventually becomes dark and coagulated. This blood does not appear to be the result of common extravasation, since it is not generally diffused, as in ecchymosis, but confined in separate patches of different shades, presenting a variegated aspect when the tumour is cut into; on closer examination it appears as if it were contained in dilated vessels, which traverse the tissue in the direction of the long axis of the rectum, so that, if the tumid part be divided longitudinally, they present numerous dark streaks through the substance, but, if the section be made transversely, small roundish specks only appear." pp. 23, 24.

The truth is, that these tumours consist partly of blood not exactly extravasated, but rather accumulated and stagnating in enlarged and distended bloodvessels,—partly of coagulable lymph—and partly of minute bloodvessels, either newly developed, or the ordinary capillaries of the mucous membrane greatly enlarged. When the ordinary hemorrhoidal attack has recurred repeatedly so as to form tumours, the mucous membrane of the rectum is at once extruded and elongated, its vessels increase in size and become more numerous, and if they burst, may discharge blood into the submucous cellular tissue; but it is almost invariable that lymph is effused; and this undergoing coagulation, and afterwards a degree of organization, gives the tumour the firm fleshy character by which it is distinguished. It is in the newly developed vessels that the blood is situate, which is described by Mr C. and M. Montegre as not resembling ecchymosis, but disposed in regular and isolated patches; and it is the effusion of lymph, which so thoroughly counteracts that general
extravasation through the cells, which M. Montegre has justly remarked, is never observed in the genuine hemorrhoidal tumour.

From these tumours blood may be discharged in two ways; either by exhalation from the mucous coat of the rectum, by which they are partially enveloped;—or when, during a false or natural effort, the tumours are forced down and grasped by the sphincter, by a small quantity of pure florid blood issuing in a fine stream from one or more small orifices, which may be distinguished on the body of the tumour. The occasional occurrence of these hemorrhages is always followed by reduction of the size of the tumours, which become flaccid and less painful, until, after some time from the operation of the same causes, local and constitutional, they become large, tense, and as painful as before. This course of events is repeated many times, until the tumours are either converted into a hard, solid, tuberculated ring, causing much pain, and almost incessant prolapse of the bowel,—or inflame, suppurate, and form bad and tedious sores, with considerable destruction of the contiguous parts.

These tumours, in their acute state, further present a difference in the living body and in the dead subject, so remarkable, that Mr Calvert, who has studied it with attention, regards it as worthy of particular notice to the pathologist. He remarks, that, after death, we almost invariably find that tumours within the anus contain either distended veins, or condensed cellular tissue; but rarely present, unless where death has taken place suddenly, that moist spongy substance, which is observed during life, and which proceeds from infiltration of fluids and the distended state of the capillaries; and he naturally enough ascribes this infiltration and distension to the vital processes causing an accumulation of fluids in parts disposed to receive them.

"In the dead subject, these tumours, which, during the haemorrhoidal paroxysm, were fully distended, are found more or less collapsed, and the veins, which, prior to death, constituted but a small part of the swelling, and ramified chiefly between the body and envelopement, now occupy the centre, and are, both from their colour and size, the first objects that arrest the attention, when the latter part is removed for the purpose of investigating their nature. Hence it is, that, even in cases where the above-mentioned swellings were formed during life by a congestion in the capillary vessels, the veins on dissection are often found enlarged, forming, together with the fine skin of the anus, or the villous coat of the rectum, the chief parts of the tumour.

"In other cases, where these tumours have been of long standing, a new substance is formed, the interstices are filled up from repeated
accretions of inflammation, by which the parietes of the minute ves-
sels are strengthened and elongated, and new matter deposited. 
Under these circumstances, the volume of the tumours, not being 
very materially increased by the accession of circulating fluids, con-
tinues nearly stationary after the phenomena of vitality have ceased." 
pp. 35–37.

The second sort of hemorrhoidal tumours, termed varices, are 
much less frequent. They are generally of a dark or bluish 
colour, soft and elastic to the touch, resembling the ripe grape, 
yielding to pressure, but returning to their former state when 
the pressure is withdrawn. They are rounder and broader at 
the base than the true hemorrhoidal tumour, distributed some-
times in irregular and ill-defined clusters like similar affections 
of the saphene veins, betraying no disposition to bleed unless 
when ruptured or cut into; and, when once formed, increasing 
gradually, or remaining almost stationary through life. Though 
they are usually found at the extremity of the rectum, yet they 
may generally be traced to some extent up the bowel, whereas 
the true hemorrhoidal tumour is generally external, and almost 
invariably within reach of the finger. Valsalva, Morgagni, and 
Richerand, had described examples of this morbid state of the 
intestinal veins; and Mr Calvert gives the following description 
of their condition in the body of an old man, who had for sev-
eral years suffered great inconvenience from what had been term-
ed piles, and who had died of disease of the prostate gland.

"The appearance of the rectum was very irregular, from the en-
ormous distention of the hemorrhoidal veins, forming large tumours, 
or rather swellings in some parts, and producing in other parts an 
undulating appearance of the mucous membrane. On puncturing 
the largest of these swellings, which was situate immediately above 
the sphincter, and equal in size to a pigeon's egg, a quantity of coa-
gulated blood was forced out by pressure; and water, which was in-
jected through the aperture with the common syringe, passed readily 
through the whole chain of tumours, which, during life, must have 
filled up nearly the whole of the rectum." pp. 41–42.

"This disposition of the hæmorrhoidal veins to become enlarged, 
as demonstrated by dissection, shows how necessary it is to ascertain 
the true nature of all tumours about the rectum or anus previous to 
employing the knife for their removal, since the hæmorrhage must 
necessarily be always dangerous, or may even be fatal. Fatal cases 
have also been recorded from a rupture of the parietes of these ves-
sels; and the degree of hæmorrhage may be computed when we 
consider, that, according to some authors, these swellings have been 
found nearly as large as the fist." p. 44.

The genuine hemorrhoidal tumour, we have already stated, 
is liable to inflammation, and its usual consequences. This
accident forms the subject of the seventh section; in which he has recorded a case of its occurrence.

In the eighth section, on the causes of hemorrhoids, the opinions of Stahl and Cullen are canvassed; and the justice of those principles, which ascribe the formation of this disease to national habits or national peculiarities, is brought under consideration. The author is disposed to confirm, by personal observation, during a residence of some months in Greece and Turkey, the remark of Boerhaave, that it is more frequent among the Eastern nations than elsewhere; and he ascribes its prevalence among the Turks to the sedentary habits, improper food, and amorous propensities of the votaries of Islamism; but, in contradiction to the statement of Schulzius, he asserts, that the inhabitants of Poland are not more subject to the complaint than those of any other country in Europe. Derangement of the digestive organs, he is disposed with Mr Abernethy to regard as a fertile source of local diseases, and especially of those of the rectum, in which he thinks the irregularities of action, which result either from intemperance or original organic weakness, are very likely to induce actual disease. Nor is a very low diet or habitual abstemiousness less injurious; and, in Italy and other Catholic countries, where, from motives of penance, or the religious observance of seasons of fast, many individuals restrain themselves to poor and scanty diet, the torpid and constipated state of the bowels which ensues, is said to be favourable to the formation of piles.

"Morgagni," he remarks, "illustrates this fact by referring to the life of Sarpi, who, when a young man, having taken little food, and drank nothing for several days, was affected with obstinate costiveness, which produced piles, and a troublesome prolapsus of the anus." p. 66.

Considerable weight is also given to the general opinion of the injurious effect of the irritating and drastic purgatives. Thus aloes and colocynth are both accused of exercising a very hemorrhagic influence on the lower part of the colon; and even rhubarb, after the example of Frederic Hildebrandt, is not spared. It is not easy to say how far the inference which derives such formidable effects from medicines in so common and frequent use is well founded. That colocynth, scammony, hedge-hysop (gratiola officinalis), and other acrid substances, are capable of producing bloody stools, is admitted by all toxicological writers; and all drastic purgatives are liable to produce prolapse of the bowel, and some degree of strangulation by the sphincter; but it is well known to practitioners, that many persons are for years, nay, sometimes for a whole life, in
the habitual use of medicines containing invariably aloes; and often colocynth or scammony, or both, without suffering any thing like hemorrhoidal symptoms; and perhaps nothing short of an induction of facts somewhat copious, could warrant the conclusion that rhubarb is in any circumstance capable of producing such results. With the same propriety Mr Calvert might have added sulphate of soda from the same authority; and no purgative medicine will be entirely blameless, or safe to be used.

In all inferences regarding the hemorrhagic effect of purgative medicines, a great source of fallacy consists in the fact, that the same sort of subjects who require their frequent administration, are most liable to attacks of vascular congestion and hemorrhage from the colic mucous membrane. Costiveness is admitted by all to be a general cause of hemorrhoidal disease; and it is not difficult to see how it should operate in deranging the circulation of the lower extremity of the bowel. It is precisely by such subjects that medicines of the kind condemned by Mr Calvert in common with other authors, are most frequently used; and whenever they are attacked with a hemorrhoidal paroxysm, the occurrence of the disease is forthwith ascribed to the circumstance which is most obvious, and which requires least trouble of observation or inquiry. The logical rule of "post hoc, ergo propter hoc," is admitted by such reasoners in its fullest extent and most unreserved application. Yet there is no rule which is liable to a greater number of exceptions in its application to medical inquiries; and none which the medical reasoner should adopt with greater caution in tracing the causes concerned in the production of disease. In short, the opinions and the facts which one author after another has repeated on this subject for years, are so vague and so imperfectly established, that they scarcely deserve attention; and ought not, unless after precise inductive investigation, to be admitted among principles that are ascertained.

The treatment is divided by our author into general and local. Under the former head the ordinary plan of medical management is distinctly explained; and, while the danger of sudden or injudicious repression of the hemorrhoidal discharge receives proper attention, the influence of suitable diet and regimen is not forgotten. Though Mr Calvert does not entertain such extreme apprehensions of the sudden suppression of the attack either by topical applications or other means, as actuated the practice of the Stahlian school, he is not entirely a disbeliever, and he is prepared with practical measures accordingly.

"In cases," he remarks, "in which the suppression of the attack
is followed by violent pains in the abdomen, by hemorrhage from the lungs or stomach, or, in fact, by any affection that appears to be associated with it, it is generally advisable, not only to employ such means as the urgency of the case may require, but, if possible, to produce a revulsion to the vessels of the rectum. Warm stimulating fluids should be injected into the rectum, and the patient should sit over the steam of hot water. If these means fail, leeches should then be applied around the anus, or recourse may be had to electricity for the same purpose. The latter method is strongly recommended by Desault, who states that he has derived great advantage from it, both for himself and others.” p. 83–84.

Though this method may do in some instances, it will in many be found too tame, and utterly inefficient; and the practitioner will find his interest in treating a case of tense headache, or coma, or of pain in the chest or belly after suppression of the hemorrhoidal discharge, with a full bleeding until the urgent symptoms disappear, precisely as he would do, had they not been preceded by such suppression.

Local treatment is not in all instances of hemorrhoids requisite. If, under the general remedies, aided by proper diet and regimen, the hemorrhage has ceased, it may be presumed that the congestive or inflammatory stage of the disorder has subsided, and that the mucous membrane of the bowel will speedily recover its natural state; when local applications are unnecessary. But if, either from the inefficiency of the general remedies, or after repeated attacks of the disease, the extremity of the rectum becomes puckered into several firm tumours somewhat painful, then it is incumbent on the practitioner to attempt their removal by local measures. These may be included, according to our author, under,—first, the application of particular substances, chiefly those possessing astringent properties; secondly, compression; and, thirdly, operation either by knife or ligature.

The tumours of the first kind, the genuine hemorrhoidal swellings, if attended to early, are generally capable of being removed by the first of these methods; for example, strong solutions of sulphate of zinc, decoctions of oak bark, with sulphuric acid, applied as lotions, or the gall-ointment as a permanent application. In Italy, our author saw the internal part of gourds and other fruit employed topically,—a practice which he ascribes to the example of Albertini as reported by Morgagni (Lib. XXX.); but he might have added, that saturnine lotions and infusions of mallow, or pellitory, cataplasms of baked apples, and oily applications, are frequently used. * Local detraction of blood by leeches, or puncture by the lancet, has long been

* Monteggia, Istituzione Chirurgiche, tom viii. p. 200.
practised, both in this country and on the Continent, as a means of alleviating the pain, and reducing the size of hemorrhoidal tumours. The former practice is commended by Schmucker and Ware, we add by Monteggia* and Callisen,† the latter by Petit and others, as Delpech; while the application of leeches to piles is opposed by Richter and Montegre, on the ground that the leech-bite generally irritates the tumour considerably. The author, after this example and that of Wiseman, recommends the use of leeches only when the discharge has been suppressed, and trusts to cupping from the loins, and cold washes and injections.

Compression is suited chiefly to those cases where there are several tumours within the anus, which become united at the sides by a degree of adhesion, so as to obliterate a portion of the cavity of the bowel. The author saw a case of this kind cured in one of the Italian hospitals by frequent emollient glysters and gentle pressure from a bougie. M. Dupuytren, on the contrary, destroys them by the actual cautery, so as to produce sloughing and suppuration.

On the same principle of compression, various mechanical contrivances have been employed to prevent the descent of the bowel and its consequent strangulation by the sphincter. The author disapproves of all the means used by most of the French and German surgeons, and thinks the only serviceable plan is that of Professor Chaussier, which consists in placing together layers of wet lint, until the surface of the compress is nearly on a level with the buttocks, its apex being directed towards the anus. Benjamin Bell was in the habit of recommending for suppressing bleeding within the rectum, a piece of sheep's gut tied at one extremity, to be introduced into the bowel and distended with water, till sufficient pressure was made on the rectum to accomplish the purpose.‡ We have successfully used this contrivance, not for the suppression of bleeding from the rectum, but to prevent its protrusion, and also in the female to prevent prolapse of the womb; and we are disposed to think, that, in the generality of cases, it will give less uneasiness, and be more effectual than the method of Chaussier.

On the comparative merits of the ligature and of the knife, Mr Calvert quotes various authorities, ancient and recent. Wise-man was in the habit of cutting over hemorrhoidal tumours freely by the knife or scissors; and more recently Mr Abernethy has for many years followed the same practice. Latta

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* Monteggia, Istituzione Chirurgiche, tom. viii. p. 200.
† Systema Chirurgiae Hodierne, vol. ii. p. 129.
‡ System of Surgery, Vol. vi. chap. xxxiv. p. 120.
recommends the scalpel as a general remedy, and prefers it on all occasions to the ligature. Benjamin Bell, though he admits the application of ligatures to tumours with broad or narrow base indiscriminately, and more especially if there is reason to think that the blood-vessels are large, is however favourable to the knife; and Monteggia and Delpech both recommend excision. The objections to the ligature consist in the serious symptoms which in some cases have followed its application; pain and tenderness of the belly, sickness and vomiting, general irritation and sometimes convulsive motions; in short, all the symptoms of severe intestinal inflammation with nervous commotion are liable to supervene; and instances have been known in which the termination was fatal to the patient. For these reasons, Mr Calvert follows Copeland in dissuading the surgeon from the use of the ligature, and thinks the general practice of surgeons and the effects of excision, show evidently that it is the safest practice for the removal of the genuine pile. The line of distinction for the respective use of these two methods, is, in our mind, easily drawn. The bad symptoms which result from the application of the ligature to hemorrhoidal tumours, unquestionably depend on the circumstance of a portion of the bowel being included; and the injury done to one point of its mucous surface, speedily excites inflammation, as in strangulated hernia, over a considerable extent. Wherever, therefore, the covering of the hemorrhoidal tumour consists chiefly or entirely of the mucous membrane of the rectum, the ligature must on no account be employed, or at least this part must not be included. Wherever, on the contrary, this covering consists of the loose skin near the anus, it may be tied with impunity. It is not always easy for the surgeon to make this distinction in the mass of disease, which piles requiring operation present; and the knife is in all circumstances the safest remedy.

Mr Calvert thinks the two fatal cases recorded by Petit and Gottlieb were varices, which he says ought not to be opened under any circumstances.

On stricture of the rectum, which is considered in the second chapter, the information of our author is neither novel nor extensive. The subject, as far as it is known, has been nearly exhausted by Home, Copeland, Charles Bell, and White; and it is chiefly from the writings of the last three that Mr Calvert has collected his information. After speaking of a form of stricture resulting from spasmodic contraction of the transverse muscular fibres of the bowel, he makes the following observations.

"In some cases the contraction is chiefly owing to a thickened and indurated state of the mucous membrane, arising from inflamma-
tion, or some chronic alteration of texture. When inflammation does not proceed to any great extent, coagulable lymph is deposited between the coats of the rectum, or upon its internal surface; this becoming organized, produces a permanent thickening, with a proportionate diminution of the cavity of the gut, and a gradual contraction of the muscular tunic. Indeed, whenever the mucous membrane of the intestines is constantly irritated at any particular part, which, in the present instance, must necessarily be the case, from the mechanical effects of the feces upon the part which projects within; or when it puts on any chronic action; there is always more or less disposition in the muscular coat to contract gradually upon it. Hence, whenever strictures of the rectum have existed for any considerable time, the mucous, cellular, and muscular coats become more or less affected, so that, on dissection, it is often impossible to determine in which the disease originally commenced." pp. 126-127.

There is great truth in this account; for perhaps in nineteen out of twenty cases, the contraction which takes place in a canal lined by a mucous membrane, is the result of inflammation of one kind or other in that membrane; and, though the practice of surgery makes us most familiar with this phenomenon in canals which are narrow, as the lachrymal duct and male urethra, and the upper and lower extremities of the oesophagus in both sexes, yet the same cause may be followed with the same effects in any mucous canal of the human body. Hence it is that dysentery, especially in its tropical form, is so often succeeded by permanent contractions of the colon and rectum; and even in those instances in which the approach of the disease is slow and gradual, its origin can generally be traced to some sensations of pain and unusual suffering, referred to the inner membrane of the bowel.

On that form of stricture which depends on the growth of tubercular masses, from the mucous or submucous tissue, the authority of Morgagni, Dessault, and Mr White, is adduced. A good instance might have been added from the Clinical and Anatomical Observations of Dr Stark,—the unfortunate victim of his own experiments.* Cancerous stricture, as a cause of contraction, is known to all; of the contraction ascribed by some to the venereal poison, Mr Calvert justly doubts the existence.

In the treatment the bougie is recommended; but its consistency must be accommodated to the size and firmness of the stricture. When the bougie, however soft, cannot be borne, tents consisting of slips of linen, dipped into ointment or cerate, or a portion of prepared gut, may be employed. When the stricture

* The Works of the late William Stark, M.D. London, 1788. 4to. p. 7, 8, &c.
consists of a narrow hardened septum, within reach of the finger, and the bougie is either too tedious or does not agree, division by a probe-pointed bistoury is the most effectual mode of removing the obstruction. The subsequent use of a tent, however, is requisite. Where the disease is cancerous, the treatment can be only palliative. The Section is concluded with some observations on obstruction of the rectum from concretions, accumulation of hardened excrement; and the formation of tumours in the vicinity.

The subject of Ulcers of the Rectum, which is treated in the Sixth, comes next in the natural order of affairs. The portion of our author's remarks which chiefly deserve commemoration, are the following on the chronic form of the process.

"In many cases it appears to take place subsequent to or in conjunction with chronic inflammation of the mucous membrane, when the situation and extent of the disease is not difficult to ascertain (if brought into view), in consequence of the dry and dusky red appearance of the former. This state of the parts is usually accompanied with a dry constive state of the bowels, and impaired appetite, and other symptoms arising from a torpid state of the intestines. In general there is not much pain in the gut: and although the patient is often troubled with tenesmus in a certain degree, yet this, in general, is by no means so troublesome as might be expected from the extent of the ulceration. Fig. 2. is a sketch of this disease, taken from the body of an elderly female, to whom in conjunction with other causes, it had proved fatal. The mucous membrane, to a considerable extent, presented a dryish and deep red appearance; and the ulcerations shining and imbued with a whitish matter, were very conspicuous; but owing to the want of colouring, the sketch conveys but an imperfect idea of what it is intended to represent." pp. 327-323.

Another form of the disease is thus described:

"Ulceration of the rectum not unfrequently puts on a more severe character than the preceding; the surface of the sore is deeper, the edges hard and irregular; it spreads with more rapidity, and the surrounding parts of the mucous membrane are affected with an erysipelatous inflammation, which sometimes extends without the anus. In this case there is much more constitutional irritation, and all the local symptoms, as well as such as are called into action by the peculiar sympathies with the adjacent parts, are aggravated. This, which may be termed the phagedenic sore, I am inclined to think, generally proceeds from an acrid state of the biliary and other secretions, in conjunction with more general causes; indeed I have remarked, that all ill-conditioned ulcers are more or less connected with an unsteady condition of the bowels, and an impaired habit of body, existing prior to their formation." pp. 328-329.

He also believes in ulceration of this bowel, independent of previous inflammation, and quotes two cases in elderly men,
whose health appeared broken by intemperance, in whom, after death, the inner surface of the gut, though in other respects natural, was studded with small deep ulcers; covered with a dirty yellowish matter;—in some parts of which cicatrization had taken place. This is not conclusive. The rest of the section is more rational, and may be perused with advantage.

The treatment of ulcers in this part of the mucous system, is to be conducted on the general principles which regulate the treatment of ulcers in mucous membranes in general. Where they do not cause much constitutional disturbance, the local application of astringent and sedative remedies will in general be adequate to the cure. Mr Calvert recommends lint steeped in moderately strong solutions of blue vitriol, or the nitrate of silver; and, if the sores are visible by means of the speculum, the application of the caustic in substance. The white vitriol, or common alum solution, will also be useful; and during the intervals, either of the zinc ointments, the calamine cerate, or the white zinc ointment, may be applied with advantage. Where the sores are attended with much pain, opiate suppositories have been followed with the best effects. Mr Calvert has seen the acetate of morphia very soothing, even in cases of cancerous ulceration; but it is needless to say, that nothing can be expected to cure in such circumstances. The general treatment delivered by the author is on the whole rational; but we do not approve of the blue pill.

The subject of Fistula Ani could not fail to awaken the remembrance of Pott, whose happy talent of description, and clear method of viewing diseases, divested of the complicated technicalities of the elder surgeons, long ago rendered this disease and its treatment familiar to the English student; and the fifth chapter is accordingly begun with an acknowledgment of the benefit derived from his writings; and an expression of regret, that the practice occasionally pursued in this enlightened country, too often betrays ignorance, or neglect of the principles laid down by this great surgeon. The chapter is short, and avowedly takes a rapid and rather imperfect view of the subject. Every fistula is the result of inflammation of the cellular substance surrounding the rectum and anus; and it is impossible to understand either the formation or the nature of this disorder, without a previous knowledge of the forms of inflammation to which this cellular substance is liable. In the first section, the author considers these forms of inflammation under the head of simple phlegmonous abscess, gangrenous abscess, and those chronic collections of matter that take place from ulceration near the lower end of the gut, or that are connected
with other diseases. The description of each form is tolerably accurate. The section on Treatment is more elaborate; and the author unfolds the principles, and lays down the measures of cure, distinctly and judiciously. As he proceeds, he shows in what manner mere phlegmonic inflammation may terminate in the formation of sinus and fistula, and what management the pathological nature of each particularly requires. Dwelling strongly on the connexion of these disorders with the state of the general health, and on the degree of integrity enjoyed by the digestive organs, he inculcates on the surgeon the necessity of attending diligently to their condition, and of regulating all his measures of local treatment accordingly.

A knowledge of the course of the fistula, which is requisite previous to operation, can be obtained only by examination of each case by the probe. Mr Calvert, however, adduces the authority of Dr Ribes of Paris to show, that the upper part of the sinus is usually on a line with the internal opening, which is almost invariably either immediately within the anus, or just above the limit of the internal sphincter muscle. In seventy-five subjects which Dr Ribes has examined during the last twenty-five years, he found the internal orifice situate most frequently a little above the place where the union takes place between the skin and the mucous membrane of the rectum; in several it was not more than three or four lines above this point; and in no instance did its situation exceed five or six inches. The opening was ragged or torn in all; in the greater number it was soft; but in a few it was hard. The exact course of the fistula, traced in the same subjects, was variable; but, in most cases it appears, after proceeding from the bowel, through the contiguous cellular substance, to have passed either between the mucous membrane and the internal sphincter muscle, or through the fibres of this muscle, then between it and the longitudinal fibres of the gut, and lastly, through the fibres of the external sphincter, when it penetrated the skin at a greater or less distance from the lower end of the bowel. From these researches Dr Ribes infers, rather inconclusively, that, "in nearly all cases, the fistula is effected in a pile, and that its passage is sometimes determined by some vein of the hemorrhoidal plexus." This does not agree with the observation of other pathologists.

In the business of operation, though Mr Calvert prefers the knife, yet he does not exclude the ligature entirely. In this country, the majority of good surgeons have justly relinquished the use of the ligature; and both reason and experience would regard a clean incision by a sharp instrument as greatly superior
to the tedious process of contusion and ulceration, either by the silken skein or the leaden wire.

The chapter on Morbid Contraction is long and elaborate. The author enumerates and discusses the various causes of this organic change with research and attention; and the result of his inquiries may be referred to the following heads:—Adhesive inflammation of hemorrhoidal tumours; thickening and consolidation of the fine skin of the anus, and of the adjacent cellular membrane, in consequence of chronic inflammation; the growth of tubercles on the inner or mucous membrane of the anus; the effects of the venereal poison according to Delpech; cartilaginous induration of the inner membrane of the anus and part of the rectum; spasmodic contraction of the fibres, either of the sphincter or of the rectum; and carcinomatous induration of the lower end of the bowel.

The chapter on Prolapse of the Anus, which is discussed in chapter fourth, is the effect of various morbid states of the bowel, its lower end, or its component parts. Rarely a primary affection, it occurs as a symptom, or an effect of many morbid states either of the intestinal canal, or of the textures which compose its lower extremity. The mechanism of the protrusion is well explained by Mr Calvert.

"It should be remembered, that a considerable portion of the rectum is not covered by the peritoneum; that this portion is connected by a loose cellular tissue to the lower part of the sacrum, and anteriorly to the urinary bladder or the vagina, according to the sex; but in such a manner, that when this tissue is relaxed, it is capable of considerable motion in every direction. That portion of the gut, which is immediately above the upper limit of the internal sphincter muscle, is much wider than the rest. The inner membrane of the rectum is also much thicker, more vascular than that in the other parts of alimentary canal, and when the gut is not distended, it forms numerous folds, that project more or less into the cavity, and which, from their usual position, are generally termed the longitudinal and transverse columns of the rectum. Their formation is evidently owing to the natural structure of the inner membrane, which cannot adapt itself to the excessive degree of extension and collapse to which it is unavoidably exposed; and when it is infiltrated with fluids, or much relaxed, these folds are very conspicuous.

"The inferior portion of the gut, to the extent of an inch and a half, is inclosed by the internal sphincter muscle, which with its fellow close the orifice: whilst protrusion is prevented from taking place,
partly by the natural connection of the peritoneum above, and the surrounding organs, but more especially by the joint action of the levatores ani and sphincter muscles. The termination, however, of the mucous membrane of the rectum, constituting the fine skin within the anus, is naturally rather loose, so that even in a healthy state it is often in some degree protruded when at stool; a contrivance that materially facilitates the transit of the excrement when the bowels are constipated, and prevents also the verge of the anus from being excoriated, which would often be the case, if this part were susceptible only of being dilated, without yielding in other respects.

"With this view of the structure and physical properties of these organs, and their relative position and connection with the adjacent parts, it is easy to perceive, that the force of the diaphragm and abdominal muscles, in the effort to expel the feces, or when forcibly called into action by any other cause, must necessarily be in a great measure directed against the rectum and anus, as occupying the most dependent part of the pelvic cavity, and being the only parts that, when the abdominal muscles contract, are susceptible of yielding to the pressure of the viscera. Now so long as the parietes of the rectum and anus, together with the levatores ani and sphincter muscles, continue in a healthy state, no displacement whatever can take place without extreme violence, the efforts of bearing down being directed from these parts to the contents of the intestine, and which are therefore expelled; but when the resistance afforded in the natural and healthy state of these parts is weakened, whilst the parietes of the gut and the muscles that contribute to support them are mutually relaxed, and the compression and straining is unusually great, or when, which frequently happens, these causes act conjointly, either a partial or more complete prolapsus may very easily take place." pp. 240—243.

The rest of the section on the causes, which may concur to produce this protrusion, or to render it permanent, shows an intimate acquaintance with the complaint; and in the section on the treatment, and on the management of intus-susception, we have a proof that the author is familiar with all the accidents and inconveniences which combine to perplex and disappoint the surgeon in his efforts to cure this painful and disagreeable disorder.

Of the last chapter, on Excrescences within the Rectum, or about the Anus, we need not speak at large. These bodies are so various, and proceed from so many different causes, that they defy arrangement; and the names given them are so numerous (fici, thyimi, condylomata, crista, &c.), that it is impossible with any advantage to attempt even enumeration, much less distinction. Mr C. treats of Warts, Fleshy Excrescences, Red Nipple-like Excrescences, Polypi, &c.; and the treatment respectively adapted to each.
We have thus shortly glanced at the principal contents of this volume, and attempted to communicate some idea of the manner in which the author has discussed his various subjects. It is manifest, that the chief sin of the work is that it is too diffuse; and that the substantial information which it conveys, is not reduced into that narrow compass within which it might have been comprised. It is, perhaps, scarcely a palliation of this error, that the treatise of Mr Calvert was a successful Prize Essay before the London College of Surgeons; for when the author determined on publication, it was his duty to retrench whatever was found in other authors, unless in so far as that was requisite to incorporate with the results of his own observation and research. Notwithstanding these defects, however, it is a book which the practitioner will peruse not without advantage.

IV.

Review of the Elements of Operative Midwifery, with a Description of certain New and Improved Powers for assisting Difficult and Dangerous Labours; illustrated by Plates. With Cautionary Strictures on the improper use of Instruments. By David D. Davis, M. D. &c. &c. and Lecturer on Midwifery, London. pp. 345. 4to. London, 1825.

From the nature of the profession of Midwifery, and the number of medical men of acknowledged talents engaged in its practice, it is a matter of some surprise that so little has been done for the advancement of the operative department of the art, and the improvement in the construction of instruments. To these subjects, the whole of the extensive and handsome volume before us is devoted.

In publishing this work, Dr Davis has thought it necessary to guard himself against the imputation which might have been raised against him, of a fondness for the use of instruments in the ordinary practice of midwifery. But we are persuaded that the contents of this volume will be amply sufficient to exonerate the author from such a charge. To use the author's words, we are sure it will be seen, "that there are no inducements held out in the present publication for rash experiments on human life; and that the few additional or improved powers which it professes to furnish for the art, are not recommended to be employed, except by persons of ample competence both to