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Contributors

Howship, John, 1781-1841.
University of Leeds. Library

Publication/Creation

London : Printed for Longman, Hurst, Rees, Orme, and Brown, 1820.

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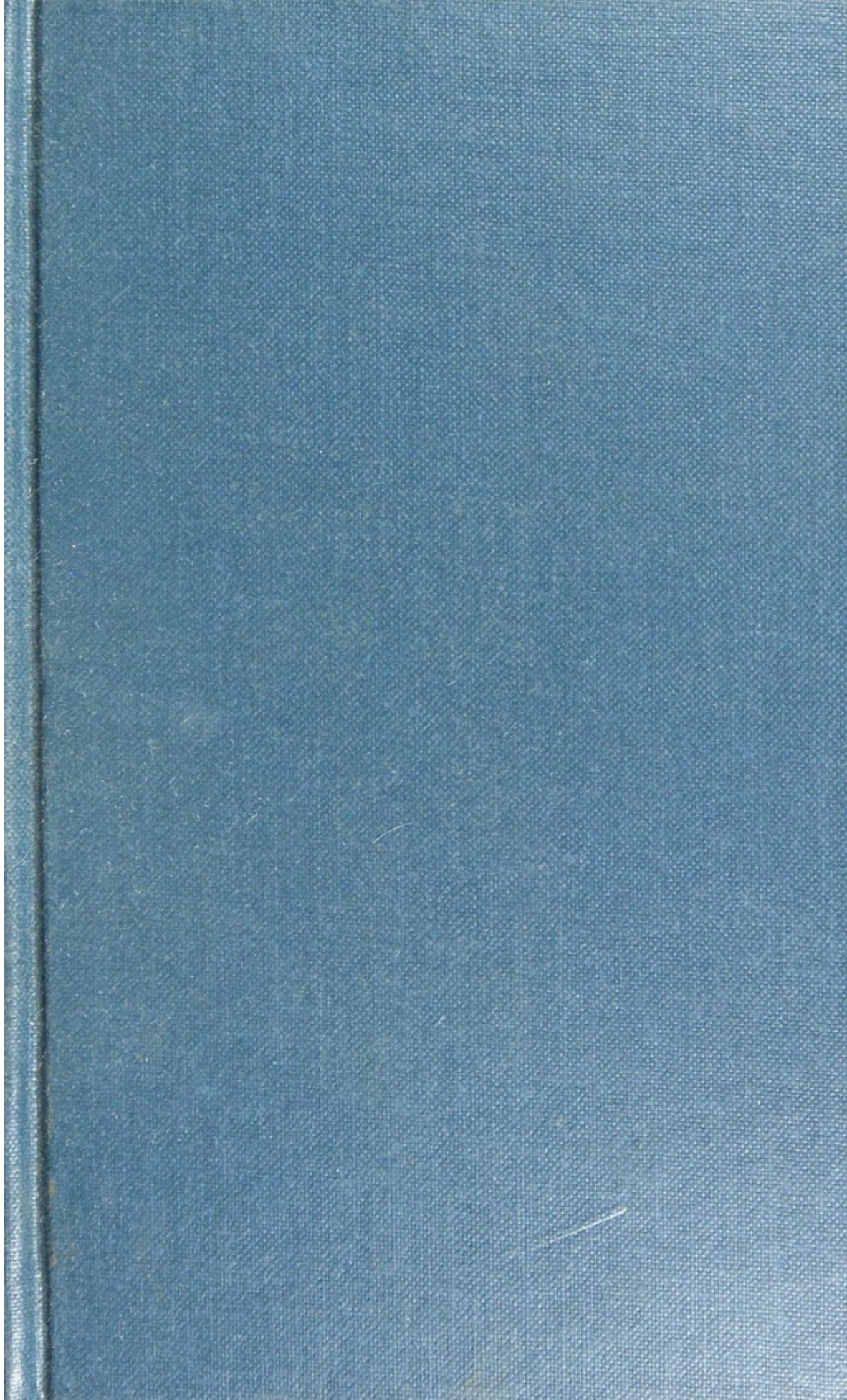
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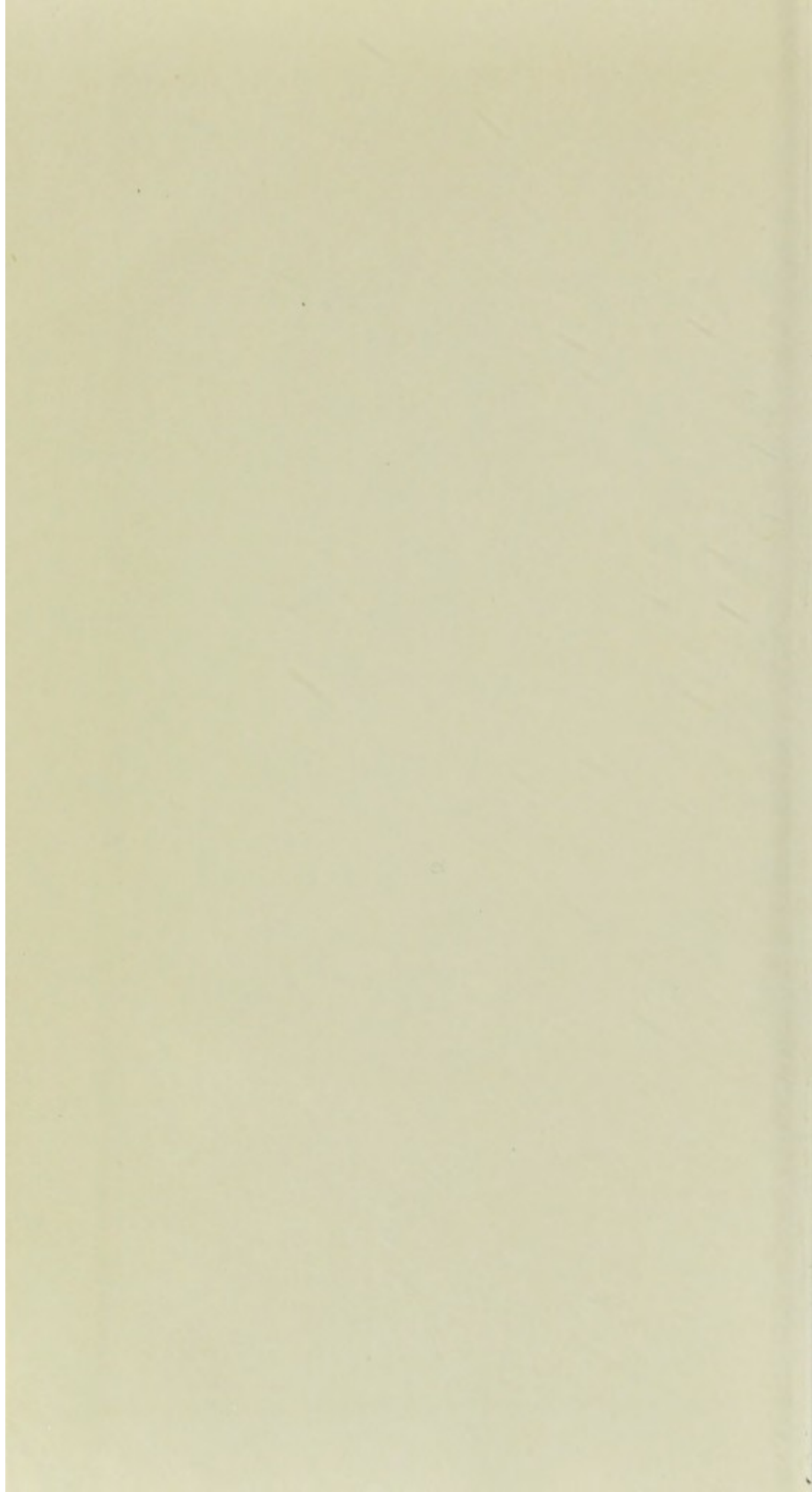
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THE HISTORY OF THE

REIGN OF
HIS MAJESTY
GEORGE THE THIRD

FROM HIS MAJESTY'S
ACCESSION TO THE THRONE

TO THE PRESENT TIME
IN TWO VOLUMES
BY
JAMES OBERLIN

LONDON
Printed by J. OBERLIN

1783
Printed by J. OBERLIN
In the Strand
Opposite the Theatre Royal

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PRACTICAL
OBSERVATIONS

ON THE
SYMPTOMS, DISCRIMINATION, AND TREATMENT,
OF SOME OF THE MOST COMMON
DISEASES

OF THE
Lower Intestines, and Anus.

PARTICULARLY INCLUDING
THOSE AFFECTIONS PRODUCED BY STRICTURE, ULCERATION, AND
TUMOUR, WITHIN THE CAVITY OF THE RECTUM;
AND PILES, FISTULÆ, AND EXCRESCENCES, FORMED AT
ITS EXTERNAL OPENING.

ILLUSTRATED BY CASES.

TO WHICH ARE ADDED,
SOME SUGGESTIONS UPON A NEW AND SUCCESSFUL MODE
OF
CORRECTING HABITUAL CONFINEMENT IN THE BOWELS,
TO ENSURE THEIR REGULAR ACTION WITHOUT THE AID OF PURGATIVES;
ON A PRINCIPLE ESSENTIALLY CONDUCTIVE TO THE PREVENTION
OF THE ABOVE DISEASES.

By JOHN HOWSHIP,

MEMBER OF THE ROYAL COLLEGE OF SURGEONS, IN LONDON; OF THE SOCIÉTÉ
MÉDICALE D'ÉMULATION, IN PARIS; AND OF THE MEDICO-CHIRURGICAL
SOCIETY, LONDON: AUTHOR OF PRACTICAL OBSERVATIONS IN SURGERY, AND
MORBID ANATOMY; AND OF PRACTICAL OBSERVATIONS ON THE DISEASES OF
THE URINARY ORGANS.

LONDON:
PRINTED FOR LONGMAN, HURST, REES, ORME, AND BROWN,
PATERNOSTER-ROW.

1820.

THE
OBSERVATIONS

ON THE DISSEMINATION AND TREATMENT

OF SOME OF THE MOST COMMON

DISEASES

OF THE

THROAT, BRONCHITIS, AND LUNGS.

BY

JOHN HENRY, M.D. F.R.S. &c.

PHYSICIAN TO THE ROYAL COLLEGE OF PHYSICIANS.

AND FELLOW OF THE SOCIETY OF PHYSICIANS.

OF THE UNIVERSITY OF LONDON.

ILLUSTRATED BY CASES

OF WHICH ARE GIVEN

THE RESULTS OF THE TREATMENT.

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Printers-Street, London.

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TO

ROBERT HOOPER, M.D. F.L.S.

BACHELOR OF PHYSIC, OF THE UNIVERSITY OF OXFORD;

MEMBER OF THE ROYAL COLLEGE OF PHYSICIANS;

PHYSICIAN TO THE MARYLEBONE INFIRMARY;

&c. &c. &c.

MY DEAR SIR,

FROM the earliest commencement of my professional studies down to the present hour, it has been my good fortune to derive much assistance from your valuable precepts, but much more from the influence of your example, in the unwearied industry, and singular success, with which at various periods you have prosecuted some of the most arduous, and most difficult researches in Pathology; without allowing them to interfere with the punctual and most humane fulfilment of the

more active duties necessarily connected with a very extensive practice.

To you I am desirous of dedicating the following Essay, not as an offering of any value, but as a small tribute of gratitude; which, if it should possess any merit, is sure of finding with you its full weight of estimation, and through your name and patronage, a much more favourable reception with the public at large.

Permit me, at the same time, to express the pleasure I feel in this and in every opportunity of acknowledging the numerous marks of favour with which you have been pleased to honour me, as well on the score of professional good opinion, as on that of personal friendship.

Believe me to remain,

Dear Sir,

Ever Yours faithfully,

JOHN HOWSHIP.

Great George Street, Hanover Square.

April 14. 1820.

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INTRODUCTION.

THE following observations relate to a very important branch of surgery. The principal reasons for bringing them forward are, on the one hand, the having devoted a considerable share of my time to the study of these complaints, and on the other, having had considerable opportunities for seeing them ; and perhaps I may also add, rather considerable success either in relieving or removing them.

The functions assigned to the alimentary canal are various and interesting. This canal may be represented as a very extended tube, in some parts larger, in others smaller ; in a certain portion endowed with a power of digesting its contents, but through its whole extent capable of contraction.

This power of contraction is of so much importance, as to be in fact indispensable ; the continual necessity for it being shown in the changes produced by digestion, which is the process appointed for the selection of the useful, and rejection of the useless parts of the food.

The contractile power of the intestines resides in what has been termed the muscular coat, which coat is lined internally by a mucous membrane, and externally by a fine smooth membrane, that completes the structure of the tube ; and as each of these expansions or coats is gifted with peculiar functions in health, so is each subject to peculiar complaints when placed under the influence of disease.

In the natural state, the internal membrane of the bowels secretes a limpid fluid, which tends to regulate the due consistence of the mass of contents, and facilitate their transit ; this membrane also answers a purpose of essential importance in the economy, by absorbing or taking up the nutritive particles from the digested matter, which thence passes by the lacteal vessels into the general volume of the circulating blood.

In disease, this membrane is subject to all the effects of inflammation, particularly ulceration.

In the natural state, the circular fibres of the muscular coat of the bowels have the power of lessening the diameter of the intestine, and the longitudinal fibres of diminishing the length of any part of the canal ; but in health these actions are altogether transitory and progressive, no portion of the tube ever remaining contracted, or dilated, permanently. Under disease, however, it is otherwise ; from the influence of irritation any part of the ca-

nal may be subjected to spasm, and should this connect itself with inflammation, the effusion of new matter may lay the foundation for some permanent disease.

The natural state of the external coat of the intestines, is that of a fine transparent and smooth membrane, which, like most of the other textures in the body, is ultimately cellular, highly elastic, and moistened by a secretion of limpid fluid. From inflammation and other causes this membrane also is liable to become thickened, and otherwise diseased.

The following observations relate to the discrimination and management of those diseases to which the inferior parts of the alimentary canal are more particularly subject; diseases which are all of them important, all more or less distressing, some of them extremely painful, and many of them, if misunderstood or neglected, eventually fatal.

Almost every deviation from health, either in the functions or structure of the bowels, may be considered as connected with one of two states, for almost every case will manifest either excess, or deficiency, in tone, or power of action; the first state favouring the production of inflammation, contraction or stricture, ulceration, abscess, and fistulæ; the second inducing hæmorrhoidal tumours, hæmorrhages, and prolapsus.

In no department of surgery is the safety of the patient more immediately concerned, or the discernment of the practitioner more promptly required, than in ascertaining the early approach of some of these complaints; and no adequate series of observations upon this interesting branch of surgery having yet appeared, the opinions of several of my professional friends have operated as an additional inducement in bringing forward some of the results of my own experience.

For the possession of most of the opportunities I have enjoyed, and for the various facilities that have rendered them more valuable, I cannot forget that I stand principally indebted to Mr. HEAVISIDE, who, on various occasions, has given me much assistance, by the communication of observations that have occurred within the more immediate circle of his own practice.

It will be observed that I have been careful, particularly with regard to morbid structure, to distinguish what I have seen and examined with my own hand, from what has been derived from the authority of others. This care seems necessary, having found that in circumstances relating even to the leading principles of pathology, error has crept in; and mere fancy, through the medium of generally received opinion, has at length assumed all the importance of fact.

With regard to some circumstances contained in the following pages, it may perhaps be objected that the writer has wandered from his subject in adverting to complaints, the seat of which must evidently have been the superior parts of the alimentary canal. Upon this point the only apology he can offer is, that he was desirous of making these observations as really useful as possible, by rendering them practically so ; and that he preferred the chance of censure for mentioning some particulars not precisely in order, to the omission of a single circumstance at all connected with the subject, which, being made known, may prove seriously important at the bed-side.

With regard to a very desirable object, the obtaining a regular habit of action in the bowels, which is rather a preventive than a curative measure, the author has ventured to propose and recommend a principle of treatment, that, as far as his reading extends, appears to have been little, if at all distinctly, held in view by others. All that he can say in its favour is, that he has adopted it in a great number of instances; and that, by little variations in the mode of its application, it has proved, with few exceptions, perfectly successful.

Upon some points it will be seen, that he has not hesitated to express opinions more or less at variance with those of surgeons of reputation and celebrity. If, however, this has been done with

due regard to good manners, no apology can be necessary. It is by the collision of opinion that truth is elicited; and it will afford him infinite pleasure, should the present essay be considered in the least degree conducive to its developement.

PRACTICAL

OBSERVATIONS, &c.

CHAPTER I.

ON CONTRACTION, OR STRICTURE, IN THE RECTUM.

SECT. 1.

On the Causes of the Disease.

1. STRICTURE in the rectum may take place under various circumstances. Any accidental source of irritation in the bowels, any acrimonious secretion poured into the alimentary canal, or any extraneous substance detained in the lower part of the rectum, may, through the medium of inflammation, lay the foundation for this disease.

2. Where inflammation results from acrimonious matters in the bowels, its extent will usually be greater, and its consequences more serious, than when excited by the presence of an extraneous body.

I have in one case known a fish-bone lodged in the lower part of the rectum excite a very circumscribed spot of inflammation at the point most favourable for its escape near the verge of the

anus; the ulcerated passage, upon the escape of the irritating cause, healing without any inconvenience to the future actions of the bowel.

I have also in many instances, while on service with the army, seen the most severe attacks of inflammation brought on, not only in the rectum, but along the superior part of the great intestine also, from the sudden accession of cholera morbus.

3. When from any of the above causes inflammation in the bowel takes place, the natural texture being soft and vascular, the cavity of the affected part of the canal is apt to become diminished, and the thickness of its sides increased; and should the excitement principally affect the mucous membrane, coagulable lymph may be effused into the cavity of the bowel; this latter circumstance becoming in its turn a new cause of disturbance to the functions of the gut. If the attack should prove violent, the above consequences may connect themselves with ulceration of the inner membrane of the bowel.

4. It has been believed by some surgeons, that stricture in the rectum may occur as the consequence of the venereal disease; but this opinion seems to rest on no better foundation than that of its having occasionally been met with in those who either had the misfortune to labour under both these complaints at the same time, or who had at least suffered from venereal disease at some former period.

5. The repulsion of eruptive complaints has been mentioned as a cause of this complaint, particularly by M. DESAULT, who relates two instances of it; I have seen several of a similar description.

6. It is probable that a disposition to contraction in the rectum may in some instances connect itself with hæmorrhoidal or fistulous complaints, and that the means adopted for the cure of the external disorder may appear to favour the subsequent advance of that which is internal, which had previously escaped without notice, or perhaps had not existed at all. My opinion upon this point is, that no operation for the cure either of hæmorrhoidal tumours, or fistulæ, ever did, or ever will, tend to the production of stricture or other disease of the gut, provided the operation is rightly performed, and that proper attention is afterward paid to the general health of the patient. The utter neglect of this latter circumstance I have very often seen bring on much inconvenience; and I know of a few instances in which it has cost the patient his life. We must not, however, discredit surgery by imputing to it those events justly attributable to the neglect or the ignorance of some few who practise it.

7. Stricture in the rectum sometimes occurs spontaneously, where it seems, notwithstanding, unfair to impute it to constitutional disease, as it comes forward alone, and yields readily to treat-

ment, provided that treatment is properly directed, and taken up in time.

8. The most serious, and indeed the only truly formidable shape in which this disease appears, is that in which it is commonly connected with some similar affection elsewhere, exciting symptoms, and exhibiting characters, that belong only to scirrhus disease : from which circumstance this particular variety of the complaint has been termed the malignant, scirrhus, or cancerous stricture of the rectum.

An interesting case of fatal stricture in the rectum, originating in cancerous disease of the womb, is related by Mr. WILMOT, in the second volume of that excellent work, the Transactions of the Irish College of Physicians.

9. M. DESAULT states that stricture in the rectum occurs less frequently in men than women, and this appears to be true, although I have not seen it in the proportion he has mentioned, of only one to ten.

10. Much inconvenience has sometimes arisen from a mere excess in the action of the sphincter muscle. M. DELPECH speaks of this circumstance as “ un spasme fixe du muscle sphincter externe de l’anus, accompagné et peut-être produit par une ou plusieurs gerçures placées dans les rides rayonnantes de cette ouverture.”* One occasional con-

* *Precis.* tom. i. p. 598.

sequence of spasm of this muscle will be mentioned presently (149.); and in a retention of urine which lately obliged me to puncture the bladder from the rectum, I found very considerable difficulty in passing my finger through the sphincter, preparatory to making the puncture. It appeared that this spasm partly arose from the extreme pain and irritation from the over-distended bladder; particularly as in a preceding case in which I performed the same operation upon a gentleman then under my care for stricture, the introduction of the finger brought on great aggravation of the spasmodic pains in the bladder, which repeatedly excited evident and distressing spasms in the sphincter.

SECT. 2.

On the Symptoms and Appearances of the Disease.

11. INFLAMMATION in the rectum, excited by the presence of acrimonious matters within its cavity, is attended with feverish symptoms common to other local inflammations. In these affections I have often observed tenesmus to be one of the most troublesome and constant sources of inquietude; particularly distressing, because the efforts to obtain relief are generally unavailing.

A very usual, and sometimes strongly marked symptom, during inflammatory action in the lower

part of the bowels, is a peculiar but decided sense of heat in the part affected.

12. Inflammation once produced, may vary in its progress and consequences. In strong and healthy constitutions, one of the most common ill effects is a degree of permanent thickening in the coats of the intestine, from serous fluid and coagulable lymph being poured out, either externally, internally, or into the cellular texture of the bowel. These events frequently end in the production of stricture, and sometimes in the formation of adhesions within the cavity of the gut.

13. I have repeatedly known stricture in the rectum arise from coagulable lymph effused from inflammation connected with an abscess formed external to the gut. In one instance (Case 5.) the band of adhesive matter could be felt very distinctly, in examining the bowel.

14. In the weak and irritable, though inflammation may end in effusion, the affection is more apt to run on to ulceration of the mucous membrane; and unless the probable state of the disease is accurately estimated, and the turn of constitution diligently attended to, the consequences will generally be serious, and the event fatal. Under these circumstances it commonly happens that the patient at first harassed, is at last exhausted, by the combined influence of excessive secretion of purulent matter, constant uneasiness, great pain, and incessant irritation.

15. Where a fragment of bone or other sharp extraneous body has found its way into the rectum, unless favourably situated for escaping by the sphincter, it usually excites inflammation and ulceration, by the aid of which it sometimes makes its way out ; in other instances, however, this does not happen.

M. LE DRAN mentions the laying open a fistulous sinus of many months duration. In performing the operation, the surgeon, introducing his finger into the bottom of the wound, detected a small piece of bone with sharp edges, lodged very near the neck of the bladder. This was extracted, and the wound healed in two months. *

In one case, the jaw of a whiting was found at the bottom of an abscess near the anus, in a complaint previously supposed to be piles. It had subsisted more than a twelvemonth ; but, on the removal of the cause, the abscess healed presently. †

In another case, an ivory bodkin, accidentally swallowed by a female, made its way from the intestines partially into the bladder ; from whence, not without considerable difficulty, it was extracted, nine weeks afterward, by making an opening into the bladder above the pubis. ‡

* Observations de Chirurgie, Obs. 86.

† Phil. Trans. No. 453.

‡ Phil. Trans. No. 260.

Where an extraneous body is low down in the rectum, the patient is generally sensible of a sharp prickling pain in the part, previous to the formation of matter, aggravated during the passage of a motion: should he apply for assistance at this period, there may be no difficulty in preventing the inflammation, or abscess, that otherwise must take place, by the timely removal of the irritating substance (37.).

16. Inflammation, then, may be followed by permanent contraction, or stricture, in the rectum. The inflammation removed, the coagulable lymph effused either between the coats, or into the cavity of the bowel, remains; and new-formed vessels shooting into its substance, enable it to assume the characters of organized matter. The activity of circulation established in some of these newly-formed parts is such, that, instead of merely preserving their original form, they undergo a gradual increase, or growth; and, provided the seat of the deposit was the cellular texture, the thickness of the sides of the bowel will increase, the aperture through the canal diminishing in the same proportion.

17. The attention of the patient is at length called to the state of the part affected. He suffers inconvenience or pain in passing a confined motion; he feels an irksome sense of weight, or

bearing down ; or, perhaps, first observes the appearance of a mucous discharge from the anus.

As the complaint increases, occasional difficulty, or pain, when at the water-closet, is succeeded by a progressive and evident change in the form of every figured stool, which never fails, sooner or later, to point out the nature of the disease. The contents of the bowels have, in their appearance, been compared to thin flattened cords, or earth-worms.

18. By examining the bowel in the earliest or inflammatory stage, we ascertain the existence of extreme irritability, or severe pain, in the seat of the affection (Case 2.); the intestine feeling soft and pulpy, and the inner membrane thrown into folds.

19. When the complaint has continued some time, and the sides of the gut are much thickened, in connection, perhaps, with effusion of coagulable lymph into the cavity, such thickening is more readily ascertained under examination. The lymph poured out into the canal may vary as to quantity and disposition ; and, while recent, the adherent mass, whether divided into bands, or attached to one part only, may be peeled off and separated by the end of the finger ; or, if more perfectly organized, there are still other means by which its quantity may be lessened, or the inconveniences resulting from its presence removed.

Occasionally there are only a few small membranous septa passing across the canal, or a rough

membranous surface, the extent of which may be determined by passing the finger on to the more perfectly smooth and elastic texture of the mucous membrane.

20. When inflammation proceeds to ulcerate, the ulcerated surface will usually be very painful to the touch, and apt to bleed, unless indeed the cellular membrane has become sloughy. Should ulceration not have taken place, the thickening and consequent contraction in the coats of the canal will pass forward to the more advanced state of stricture, so as to prevent the introduction of the smallest bougie, and rendering the intestine at last impervious.

21. Where stricture in this part has been ascribed to the venereal disease, the complaint takes place in the manner above-mentioned. The sides of the gut become thicker, and more firm than natural, lessening the diameter of the canal. It has been supposed that in this particular affection the mucous membrane of the bowel labours under an excitement similar to that which exists in the urethra in gonorrhœa; and to this circumstance the French writers have attributed the copious mucous discharges that occasionally attend the disease. I have, however, met with no fact in support of this opinion.

Should the disease have arisen from translation, or retrocession of cutaneous eruption, or should it

be conceived to originate in hæmorrhoidal or fistulous complaints, it will in either case observe the same course, and exhibit the same appearances that have been described already.

22. The latter stages of strictured rectum, where it has no malignant tendency, are extremely distressing. The aperture of the stricture diminishing, the increased efforts required to expel the fæces become not only violent, but at length unavailing; while the urgent straining tends only to aggravate the irritation of the diseased parts, exposing the patient to a degree of misery and torment almost beyond description. Happily, even in these circumstances, the disease admits not only of being relieved, but cured.

23. When the difficulties of the disease increase, it occasionally happens that abscess takes place in the vicinity, which abscess extending to the cavity of the intestine above the stricture, and opening externally also, allows the escape of at least some part of the contents of the overloaded intestines, a circumstance I had lately the opportunity of witnessing in a poor person, who, under much distress from this complaint, could not be prevailed on to allow the proper means to be used for her relief, and consequently fell a sacrifice to the disease.

24. Of the malignant, scirrhus, or cancerous stricture, the early course frequently passes by without notice: it sometimes proceeds very slowly. In

one case, the first symptom was an occasional uneasiness, and frequent darting pain in passing a motion. In two other cases, one of which is published, the first symptom was an irritation at the neck of the bladder (Case 6.). The more early symptoms are succeeded by those local inconveniences consequent to obstruction to the passage through the bowel.

25. The distinction between scirrhus stricture and contraction of any other kind, is always important, but not always easy; much assistance, however, may in general be derived from a careful attention to the history.

It has been observed, that the firmness or induration in the feel of the stricture, and the apparently considerable extent of the affection, conveying the idea of a large mass fixed in the pelvis, is a criterion of its nature. This was once my opinion; but I have lately traced the same character in diseases from which, by proper care, the patients have perfectly recovered.

26. The symptoms I think most clear, are either a peculiar sharp pain darting through the seat of the disease, or a more constant sense of glowing warmth or heat in the part. These symptoms, as far as I have seen, attend only the malignant, or scirrhus stricture. The means of relief also, as far as they relate to mechanical pressure, while they relieve other kinds of stricture, cannot be

endured in this; in which they only tend to aggravate the symptoms, and hasten the progress of the disease.

27. The foregoing remarks relate to strictures so low down, as to be within the reach of operative surgery. Contraction of the bowels, however, may take place higher up, where no operation can avail. With regard to these cases, we have much to learn, as to the power of determining the seats and causes of disease, that we may be the better enabled to alleviate those sufferings which may not admit of being entirely removed. In one remarkable case, stricture in the colon followed from a blow (Case 8.); and within the last four months, I have had the care of an accident in which a similar consequence would most probably have followed from a kick upon the abdomen, producing violent spasmodic and inflammatory pains in the situation of the transverse arch of the colon, and a copious as well as continued effusion of blood into the cavity of the intestine, with fever. By adopting the plan laid down for the treatment of inflammation (31.), the consequences of the accident were progressively removed, the patient felt relieved from the pain, the local tenderness, and lastly the difficulty in preserving an erect position; and in a few weeks considered himself in every respect perfectly recovered, giving reason to believe that the early attention paid to the injury was the means of preventing

those more serious consequences which delay might have incurred.

28. Authors have attempted to distinguish the kind of stricture, by the state of the inner membrane. M. DELPECH states, that in the venereal stricture, the inner membrane becomes tubercular; but the only instances in which I have found this membrane so changed, were clearly cases of scirrhus. M. DESAULT, more guarded, says that the inner membrane of the bowel occasionally acquires a surface more or less distinctly tubercular, whatever may be the nature of the stricture. The fact is, this tubercular state of the internal or mucous lining of the gut, arises, as far as I have examined the disease, partly from the membrane becoming thickened, vascular, and pulpy from œdema; and partly from the contraction of the space within which it is confined, throwing it into numberless short, convoluted folds, and presenting a surface which the finger cannot well distinguish from a collection of soft tubercles.

29. The scirrhus stricture exhibits on dissection great and extensive thickening and consolidation, as well as confusion, of parts. The disease, not confined to the coats of the intestine, is continued more or less extensively into the cellular membrane beneath the peritoneum reflected over the sacrum, and bones of the pelvis. The firm, yet elastic, feel of this disease is peculiar, much resembling that of cartilage.

On opening the cavity of the bowel, the canal is found nearly or entirely closed, the section presenting so few traces of original structure as to render it difficult to say in what particular texture the disease originates. It appears to me to commence in the cellular membrane, connecting the coats of the intestine, an opinion not only rendered probable from the appearance of the parts, but from the evident facility with which the disease extends itself in the cellular tissue; it might also be argued from the tendency I have frequently remarked in scirrhus disease of the breast, to spread backwards, between the fibres of the pectoral muscle, which can only happen by its affecting the cellular texture.

SECT. 3.

On the Treatment.

30. STRICTURE in the rectum may generally be prevented by an early and judicious attention to any inflammatory attack, to which this, no less than the other parts of the alimentary canal, is occasionally subjected.

31. Where inflammation is dependent upon acrimonious matters, plentiful dilution, by drinking copiously of light broths, or farinaceous decoctions, with repeated injections of warm water, will essen-

tially tend to the relief of the patient, especially if assisted by the exhibition of gentle aperients, neutral salines, and other diaphoretic medicines; together with the warm bath, if required (68.).

The necessity or propriety of blood-letting will depend on the constitution of the patient, and the state of the pulse, as well as on the other symptoms. The pulse, although quick and hard, may not be sufficiently full to require, or to warrant, the abstraction of blood.

32. It is much to be lamented that in the treatment of internal diseases, their probable remote consequences are so little adverted to. The tendency of inflammation to produce effusion and contraction when it affects the urethra is now well known, but notwithstanding the other membranous and muscular canals are subject to the same law, it is not recognised; for when those events take place which almost invariably pave the way to the future production of stricture in the rectum, they are most commonly taken up on a wrong ground, or if present symptoms are relieved, no further precaution or enquiry is suggested, for none is thought of; although the readiness with which inflammation deposits coagulable lymph, and produces stricture in the urethra, has been repeatedly explained, and particularly in the valuable work of Sir EVERARD HOME on that subject.

33. Regarding the consequences of inflamma-

tion in the urethra, and in the rectum, as producing stricture, one material difference appears to be, the more frequent effusion of coagulable lymph into the cavity of the canal in the latter, than in the former case.

Where adventitious adhesions have taken place in the rectum, their division ought to be effected, if within reach, but always with the least possible violence. If recent, the finger alone will be sufficient for separating them, without injury to the surface of the bowel. Where, however, force or violence is necessary, the division had better be made with a probe-pointed bistoury, or with scissors; the instrument being cautiously introduced upon the finger, without being suffered to pass beyond the reach of that best of all directors.

34. The occasional necessity for the aid of instruments, in dividing these adhesions, will be apparent, when it is recollected, that although coagulable lymph is easily separated or torn when it occurs as a recent deposit, its condition changes, it becomes organized, and the strength it may ultimately acquire is scarcely to be believed. In my practical observations in surgery, a case is related, in which the usual symptoms of hernia were produced by adhesions formed within the abdomen, strangling a part of the intestinal tube. It is difficult to conceive that any cord or band, the merely accidental result of effusion, should be capable of

bringing about so serious a consequence. I was, however, lately requested to open the body of a young woman, in which examination I found the abdominal viscera in general much incommoded, and the omentum diseased, from inflammation, which had deposited various cords of coagulable lymph, connecting the bowels in various parts to each other, and to the pelvis. One of these cords, attached at one end to the anterior parietes of the abdomen, and by the other to the small intestines and thence indirectly to the spine, was scarcely thicker than a crow-quill, yet so strong, that raising it upon the fingers of both my hands, I found it strong enough to enable me to lift the body almost entirely from the table.

The great importance of being vigilant and prompt, with a view to the prevention of inflammation in the bowels, is more serious than is generally supposed. I have recently witnessed an instance in which adhesions from preceding inflammation caused infinite distress, and after six years incessant suffering terminated fatally. (Case 7.)

35. Considered practically, it is sometimes difficult to determine the precise extent, the seat, or even the actual presence of inflammation in the bowels. A degree of spasm will occasionally produce appearances and symptoms so closely resembling those of inflammatory action, that the distinction is almost impossible. The primary object, however, of these

observations being to point out the means by which particular kinds of obstruction in the bowels may be effectually relieved, I think it right to mention my favourable opinion of a very powerful remedy, which I have known remove the most alarming degree of obstruction, where spasm presumably has been the cause. I have thrice had the opportunity of seeing its effects. They were cases in which the patients had suffered extreme pain in the region of the bowels, in which the prescriptions of physicians had availed nothing, and in which consequently Mr. HEAVISIDE's opinion and assistance had been requested; who, finding that the stomach had rejected every thing taken, and that stimulating clysters produced no favourable effect in spite of bleeding, warm bath, and almost every other means, desired me to try the fume of tobacco, injected cautiously, by the proper apparatus, into the bowels. The usual effect of this application on the constitution is considerable lassitude and faintness, the pulse becoming much softer and often irregular; it tends, of course, most powerfully to relax any spasm in those parts to which it is most immediately applied; and it is curious that while it removes any excess of contraction in the intestines, it manifestly excites a moderate diffused activity, producing a peculiar and remarkable disturbance, a general commotion and rumbling noise in the bowels, which in each of the three cases to

which I allude was soon followed by copious evacuations of faecal matter, and was evidently the efficient means of saving the life of the patient.

It may be objected that in the above cases the obstruction might not have been the consequence of spasm alone, but probably a degree of intus-susception in some part of the bowels. To this it is only necessary to reply, that the obstruction being complete, the removal of it became not only necessary, but essential to life, and that by the means employed the passage was restored, the pain removed, the feverish symptoms relieved, and the patient's life preserved.

A case of fatal obstruction in the bowels is recorded in the *Philosophical Transactions**, in which the habitual difficulty in procuring stools was discovered, after death, to have originated in the lower end of the colon, folded back upon itself at a very acute angle, having formed a close adhesion for several inches along the line of contact.

36. In considering the symptoms of inflammation in the rectum, it has been observed that the probable consequences will much depend on the habit of the patient, and that, notwithstanding the effects already noticed, will commonly occur in strong constitutions, the weak and irritable will be more liable to suffer from another consequence, that of ulceration within the bowel. The probability of this

* No. 275.

event must be estimated by the small and deficient, though quick or even rapid pulse ; by the state of the tongue varying towards the appearance observed in low typhoid fever ; and by other characters of weakness and irritation. Examination of the bowel conveys some information ; there is little disposition to contraction, combined with great local irritability.

37.. Of inflammation from local irritation, I have known two instances in which a fish-bone escaping into the throat has through inflammation produced stricture in the œsophagus, creating much inconvenience to the patient: although in one of these I know it did not shorten life, as the patient lived many years afterwards, and then died from some other cause. In one case, I have found a small bone passed through the intestines give rise to very unpleasant consequences in the rectum, producing an abscess, which, although it eventually allowed the escape of the irritating substance, left an unhealthy state of parts, that required time and attention to remove.

A gentleman applied to me with uneasiness and pain in the rectum, which he could not explain: suspecting some local irritation, I examined, and found the sharp edge of rather a large fragment of bone pressing against the sides of the bowel. He was requested to return home, and remain quiet in bed, where, with the assistance of some sponge-

tent, I succeeded in relaxing the sphincter sufficiently to introduce two of my fingers. By this means the extraneous body, which had already excited much irritation, was safely removed, and further mischief prevented.

38. The treatment of stricture in the rectum cannot be taken up too early. The contracted part, provided the mischief has not proceeded far, may admit the finger to pass freely through, without giving any distinct impression of coagulable lymph within the cavity, nor of ulceration of the mucous membrane.

In this state, the common wax bougie, or perhaps, in preference, one of elastic gum, of moderate size, may be introduced through the stricture, and allowed to remain or not, according to circumstances. If the parts are irritable, they must be quieted and humoured; if otherwise, they may be treated with less reserve.

39. The frequency of passing an instrument must be regulated by the state of the parts; the operation may usually be repeated at least every few days. It will require some knowledge of these complaints to determine whether the complaint is in a state that is favourable for the use of the bougie. Where the least tendency to inflammatory action exists, I have known the symptoms much aggravated by a single application of this kind; whereas, had due attention and discernment been

shown regarding the previous state of the parts, they might, by the direction of proper medicines, have been easily brought into a state more favourable for operating, saving the surgeon much loss of time, and the patient much unnecessary pain.

40. Where contraction from inflammation becomes established, or rather makes a slow and steady progress, the necessary treatment may prove tedious, but the event, under proper management, is almost sure of being favourable. The introduction of the bougie may be required every day, or it may be necessary to increase its diameter more quickly than common, in order to gain upon the disease: or it may be expedient, with a view to excite absorption of the newly deposited matter, that the operation be so conducted as to produce, and keep up, a certain degree of pain, or at least uneasiness, during the continuance of the pressure.

41. All these circumstances must be regulated by the discretion and judgment of the practitioner; one point being so balanced against another as may afford the best prospect of ultimate success, by promoting absorption, and favouring relaxation. That absorption may reasonably be expected to take place, by adoption of the plan proposed, is sufficiently proved by the frequency with which we see it excited by the agency of pressure, under other circumstances. At all events, it is most true, that I have in many cases found the thicken-

ing diminish, the induration decrease, the aperture of the stricture enlarge, and the patient made most happy, without any other assistance than that which the judicious application of the bougie has afforded.

42. Stricture in the rectum, when supposed to be connected with venereal complaints, has exhibited no distinct or peculiar symptoms; and those who have advocated such connection have admitted that the only mode of determining the point is by placing the patient under the influence of mercury, which, say they, if the complaint is venereal, will effect a cure.

43. Should the disease advance, the aperture through the stricture becomes progressively lessened, till at length the mechanical obstruction, at first occasional, is now constant, with aggravated suffering, and increased distress. The frequency of desire to pass a motion, the difficulty in effecting its passage, and the degree of pain brought on by the attempt, become almost insupportable. The treatment, however, is to be still conducted upon the principles already laid down.

44. In dilating strictures of this kind, M. DESAULT was in the habit of introducing a slip of lint, passed upon a probe through the strictured part, and allowed to remain there some time. In the course of the treatment, the quantity of lint thus introduced was increased, so as to answer the same

purpose as a series of bougies ; and the plan consequently proved as successful as that of introducing the bougie. I have repeatedly tried both modes, and certainly prefer the bougie : this instrument presents a more perfectly smooth surface, gives much less pain in the introduction, and, as far as my experience goes, has answered the purpose better than the other method.

45. The disease now under consideration, it might naturally be concluded, could not, in any instance, pass through all its stages without exciting attention ; but the degree of indifference manifested in some instances regarding health is scarcely credible. I was, some months back, shown a disease just removed by a medical friend from the body of a lady fifty years of age, who died in the country. She had never applied for any opinion upon her case till a week previous to her decease, when, complaining of confined bowels, she requested her apothecary to send her some medicine. Large doses of the sub-muriate of mercury, and other powerful purgatives, were given without effect : injections were administered, but could not be made to pass. Violent pains soon came on in the bowels, and continued till she died. On opening the body, part of the small and the whole of the large intestines were found loaded with fluid and fæcal matter, and very much inflamed. The cause of the obstruction was discovered low down

in the pelvis, near the termination of the rectum, where the gut had become so nearly impervious from stricture, as to prevent the introduction of any but the smallest sized probe.

46. Abscess in the vicinity of the stricture usually allows the escape of a part of the contents of the bowels. When, however, the stricture is relieved, and the natural passage partially restored, the fistulous channel generally assumes a healthy disposition, and soon closes up, similar to what happens in fistula in perinæo, from stricture in the urethra. Where, on the other hand, the removal of the obstruction in the bowel is not followed by the healing up of the fistulous passage, the partial or complete division of it will be all that is required for perfecting the cure.

47. In scirrhus stricture, it has been already observed, that pressure does harm; and, as the application of the bougie is therefore out of question, we are obliged to rest upon those palliative measures which consist in the direction of proper medicines; these, under judicious regulation, will often afford relief and comfort, although they may leave us in uncertainty as to the event of the disease.

48. M. DELPECH says, that where the advanced state of the disease precludes the passage of the fæces, it has been proposed to divide the strictured gut, to secure the escape of the contents of the

bowels, the confinement of which must, of course, produce extreme distress and danger. He adds, that the carrying up a cutting instrument into the midst of a cancerous disease must be expected to produce ulceration, and, in this way, hasten the destruction of the patient; but that, in cases of this kind, every thing that can be proposed is subject to objection. His words are: “ On a proposé de faire
“ alors la section de l’un de ces points interme-
“ diares, afin d’assurer le passage des matières.
“ Ce parti a de grande inconvéniens sans doute.
“ Porter l’instrument tranchant au milieu ou tout
“ près d’une affection cancéreuse, c’est hâter
“ l’ulcération, qui doit consommer la ruine du
“ malade; mais dans des cas de cette nature, on
“ ne peut rien entreprendre que de très dé-
“ fectueux.”* Upon this point I must take the liberty to observe, it appears to me that operative surgery should rarely, if ever, be recommended, unless where the chances are decidedly in favour of its success; and if this opinion is right, it must unquestionably be wrong to advise an operation in a disease of inevitably fatal event. It can only tend to bring discredit upon that branch of surgical practice, which, from the positive good that, under proper direction, it is capable of conferring, lays the fairest claim to the regard and confidence of mankind.

* Précis Elémentaire, tom. iii. p. 559.

49. From its known power of allaying irritation, opium, in the latter stages of the disease, becomes our chief dependance, and the principal means of relief, assisted occasionally by other medicines of the same class. The distressing sensations experienced in the parts may sometimes be alleviated by the introduction of suppositories, made of the extract of opium, of conium, or of hyoscyamus, singly or combined, according to circumstances. One advantage attributed to suppositories is, that the application made in a solid form dissolves slowly, and thus operates more in the way of a permanent remedy. In one patient, however, whom I some time since attended, a suppository of opium directed to be introduced with this view gave much additional uneasiness, and that repeatedly; but the same quantity of opium, dissolved in a warm injection, had an excellent effect, and was always productive of much relief and temporary comfort.

50. The treatment of contraction from spasm of the sphincter, must be regulated by circumstances. In the cases mentioned by M. DELPECH, the attempts made to dilate the parts increased the distress, and did harm. But the description given certainly implies the existence of some venereal taint in the habit, to remove which should have been the first step. That gentleman, however, advises that the stricture be removed, by carrying a free

incision through the fibres of the muscle, taking care so to heal the wound as to prevent the reunion of the divided parts. This operation, I confess, I have never seen performed, and, as a matter of opinion, should think very rarely necessary.

CASE 1.

Inflammation of the Rectum.

A stout young woman, aged twenty-two, complained of heat and pain about the rectum and anus, April 3. She said, that an anxiety to keep her place had induced her to conceal her ill health as long as she could. Her bowels were confined, her pulse quickened, and her skin hot; she complained of constant burning heat internally, extending from the fundament several inches along the bowel; connected with which, there was heat and tumour in the perineum. She was ordered some opening medicine, but neglected taking it; and on the following day was ordered fomentations, being much worse.

April 5. I was requested to see her. She complained principally of the great heat and constant sense of burning, extending several inches along the intestines, connected with so much external swelling and inflammation below the right labium,

as to preclude more particular examination. With a very white tongue, and a hot and dry skin, she had much thirst, and a pulse at 120.

The fomentations were continued, and four large leeches applied to the perineum; but the pain not being at all relieved, eight ounces of blood were extracted by cupping as near the part as possible. By these means, the internal sense of heat and pain in the rectum immediately gave way, and in a few hours was quite gone; the external heat, pain, and swelling remained, for which fomentations, rest, and low diet, were directed.

On the following day (the 6th) she took castor oil, which brought away several highly offensive stools, to her great relief; the fomentations were continued.

April 7. In the course of the afternoon, the abscess in the perineum broke, the discharge from which was intolerably foetid. She found immediate relief, and by the next day was quite easy, but very weak. As the fever now left her, she took bark, and within a fortnight the abscess was healed, and she was perfectly recovered.

CASE 2.

Inflammation of the Rectum.

Jan. 12. 1819. I was consulted by a gentleman of delicate habit, for a complaint in the rectum. He said that about five weeks before, he had contracted a very slight gonorrhœa; that being confined in his bowels, he a few days afterward felt pain in passing his motions, which complaint had now become very distressing. The pains were occasional and acute, either confined to the bowel, near the anus, or shooting thence upwards to the loins. There was a constant, though variable sense of heat in the part; the passing a motion was extremely painful, especially just afterward, exciting tenesmus, and irritation at the neck of the bladder. The examination of the rectum gave excessive pain, exciting the most violent nervous agitation; the feel of the bowel was that of an irritable and thickened, but at the same time a spongy and relaxed part; the temperature was evidently raised above the natural standard; there was nothing amiss with the prostate, but gentle pressure towards the sacrum instantly brought on the peculiar pain in the loins of which he had complained, as if the state of the bowel had connected itself with some affection of the sacral nerves: the

tongue was white; the pulse at 90, small but hard. There was a trifling appearance of discharge from the urethra, but an elastic gum bougie passed with freedom, and without pain. He was directed to keep quiet, live low, and take gentle aperients to procure three or four motions daily. From this plan he experienced some relief.

Jan. 15. He had been very poorly, with constant irritation and distress about the loins and rectum. He was ordered some castor oil, which, with other medicines, procured several copious stools, and so much relief, that by the next morning he was easy and comfortable.

Jan. 17. He was not quite so well, the tongue still covered with a thick white crust; the pulse still at 90; the skin hot, and thirst considerable. The apparent state of the bowel, on examination, much the same: pressure externally, above the pubes, gave no uneasiness. I now directed the saline draught, with tincture of opium, to be taken every four hours.

Jan. 19. By the assistance of aperients, copious fæcal evacuations were obtained, and the symptoms much relieved. The tongue became cleaner, and the pulse soft, and reduced to 80. The medicines were continued.

Jan. 23. His complaint had quite left him, but he was very weak. It was, however, considered prudent to allow him to recover his strength slowly;

the aperient medicines therefore were continued, but he was directed to take light nourishment more freely than before. Under this plan he soon entirely recovered.

Feb. 12. On examination, the bowel was ascertained to be in every respect restored to its natural state.

CASE 3.

Stricture of the Rectum, from Inflammation.

L. R., aged thirty, had inflammation and abscess at the side of the rectum in the year 1809, followed by two years' ill health, and two operations for fistula. At the close of this period, she felt increased pain in going to stool, and had a considerable mucous discharge from the rectum and vagina. Medical assistance improved her general health, but she requested admission into St. George's Infirmary, in December, 1811. On examination, I found a contraction like a thin membranous circle, about two inches within the anus, which appeared to me an affection of the mucous membrane alone. It seemed a very fair case for the application of the *argentum nitratum*, which I have no doubt would have cured her, but she objected to it. Repeated trials having proved that

the irritability of the parts was too great to admit of her deriving benefit from the unarmed bougie, she left the house. A more particular detail of this case is given in the Surgical Observations.

CASE 4.

Stricture in the Rectum.

In Nov. 1811, I operated for fistula in ano upon a lady aged twenty-eight; the wound healed readily. In February following, I was again consulted for a difficulty occasionally observed in passing her motions. This complaint was inconvenient or distressing, according to the state of her bowels.

On examination the intestine was found contracted, but so high up, that the part where the stricture was greatest, was beyond the reach of the finger. The gut was not apparently much thickened, nor at all confined laterally: these points were favourable, although the strictured part was extremely irritable. The examination gave much pain, exciting great nervous agitation. She was advised to allow a bougie to be passed, and two days afterwards this was done: a wax bougie of moderate size, curved to the course of the bowel, was introduced. It was with some difficulty, and very severe pain, that the instrument passed the

seat of the contraction ; allowed to remain, the pain became easier, but was increased by the withdrawing the bougie, the stricture grasping it very closely. A composing draught was directed to be taken immediately.

The same instrument passed twice a week, for six weeks, so essentially relieved the complaint, (the bougie passing with so much less resistance, and the motions with so much more ease and freedom,) that it was proposed to introduce one that was a size larger ; but as the patient now found herself perfectly free from all the symptoms to which the stricture had given rise, she preferred waiting to see whether she might not remain well, without further assistance.

Since the above period, there has been no return of the complaint.

CASE 5.

Stricture, from Inflammation of the Rectum.

J. W., a servant, aged thirty-two, in October, 1818, slipped in descending some steps, and received a violent contusion upon the perineum. Severe pain and inflammation followed, she however continued to do her work.

In the course of a month, no longer able to move,

she kept her bed, mentioned the accident, and was advised to poultice and foment; soon after which, the extreme heat, pain, and swelling were relieved by something breaking, as she thought, into the bowel; and the opinion was confirmed by the flow of a copious purulent discharge from the anus: the same kind of matter was after this passed constantly with her motions.

Dec. 1. She came into the St. George's Infirmary; fomentations and poultices were continued till January 2., when the abscess opened externally, near the anus. The same treatment was still continued.

In examining the parts, January 23., I found on the left of the sphincter some extent of integument detached, perforated in several places, and discharging pus. The verge of the anus was concealed by what seemed hæmorrhoidal tumours, but by their puffy flaccid feel, they were perceived to be only an œdema of the cellular membrane. Passing the finger per anum, I found that what she said as to difficulty in voiding her motions was correct. For an inch and a half, the bowel was unaltered; above this an obstruction existed. It was a defined circular ring, formed within the intestine, not at all resembling the feel of the smooth, soft, inner membrane. It firmly adhered to the cavity, and had a contracted central opening, through which, with some little pressure, and com-

plaint of pain, I passed my finger, perceiving at the instant a partial laceration of its substance. The stricture was thus ascertained to be not quite two inches in extent, beyond which the bowel was healthy.

The feel of this adventitious substance was very different from that of any originally formed structure : it was peculiarly rough, spongy, somewhat fragile, and capable of being partially detached. A probe, introduced by one of the external openings, discovered a sinus, leading near five inches along the outside of the intestine ; the stricture, however, prevented my being able distinctly to feel the point of the probe.

Jan. 26. She said she had been able to pass her stools better since the examination. As a first step in ascertaining the exact tone of the parts, a bougie of tallow was passed through the stricture, and allowed to waste, by the warmth and action of the surrounding parts, a plan that Mr. HEAVISIDE is partial to, as possessing several advantages. It certainly determines the present measure of irritability very accurately, without the risk of increasing it, as the wasting of the bougie is in effect equivalent to its removal, without the disturbance incident to its being withdrawn.

Jan. 30. The same application was repeated.

Feb. 2. A bougie of wax, rather less than the former, covered with oiled lint, was passed through

the stricture. This produced increased pain, appearing to depend more on the roughness of surface, than the size of the instrument. It was expected this circumstance might prove an advantage, but it seemed to operate rather unfavourably, creating too much pain and disturbance.

Feb. 6. and 9. The same bougie alone was passed; the operation was much less distressing, and apparently more beneficial, by allowing the parts to remain quiet.

Feb. 15. A bougie of larger size, of elastic gum, was introduced; it passed with great facility, although, from dilating the stricture, it excited an aching pain during the half hour it was allowed to remain. On the 17th and 19th the operation was repeated. On the 23d, I laid open the sinus leading up by the side of the intestine, dressing it with lint, as in the operation for fistula.

March 9. With copious suppuration, and more pain, a slight attack of erysipelatous inflammation came upon the perineum, with tremors, and feverish heat. The rectum, on examination, was found heated, but the circular band of coagulable lymph, though somewhat more contracted, was not perceptibly more firm than before; the bowel beyond the stricture was still in its natural and healthy state.

For these complaints she was directed to foment, and take the bark with sulphuric acid. These

means were continued till April 8., when, being quite recovered from the attack of inflammation, and much improved in strength, she was recommended to try the cold bath, the discharge being still rather considerable. The cold bath proved rather too powerful, and it was therefore repeated locally only. The internal use of tonics, and the regular introduction of the bougie, were now continued on to the 20th of April, when a very large sized bougie passed with perfect ease, and the discharge had nearly ceased. She now felt herself sufficiently recovered to propose leaving the Infirmary and returning to service, since which she has remained well.

CASE 6.

Scirrhus Stricture in the Rectum.

A labouring man, aged fifty-two, with much pain in the loins, became subject to irritation at the neck of the bladder. The urine flowed freely, but was followed by pain and straining, which in a few weeks became very violent. His bowels were confined, so as frequently to require physic. After three months he applied to St. George's Infirmary, and I was requested to see him, in February, 1810. He had then severe pains in the back and loins,

with lameness of one thigh. There was no appearance of ill health about the limb, but as the bowels were costive, some opening medicine was directed.

The distress in making water increased, the urine depositing a thick white sediment. The irritation in the bladder allowed him no rest, frequently inducing irresistible desire, though with fruitless efforts, to pass a motion. Bougies passed into the urethra threw no light upon the case; I therefore examined by the rectum, which was firmly contracted just within reach of the finger.

Extreme irritability rendering the common bougie objectionable, a curved wax taper was introduced, and allowed to remain half an hour; and, after some days, the operation was repeated. The wax bougie was then exchanged for one of tallow: this proved to be the only tolerable mode of operating by pressure. To the finger, the inner membrane of the bowel felt as if puckered up into small short ridges, or folds; the other coats of the intestine were evidently much thickened, as well as contracted. The disease was firmly attached to the sacrum.

He soon became subject to severe spasmodic darting pains in the strictured part, all the symptoms gaining ground, till any further attempt at relief by the use of the bougie was given up. Worn down by extreme irritation and pain, with drop-

sical effusion into the abdomen, he sunk, and died, April 10. 1810.

On opening the body, a very extensive scirrhus disease was found in the omentum and stomach; but the largest mass was formed by the rectum. At the upper part of the pelvis this intestine was firmly fixed to the spine and sacrum, by an extensive thickening of parts around the gut, the coats of which had undergone a very complete conversion into the true scirrhus structure.

Removed from the pelvis, the anterior line of the intestine was laid open, from the anus upwards, dividing through the stricture. The contraction had commenced several inches above the sphincter, extending thence upwards and downwards. The section of the disease, from the margin of the vilous coat to that of the peritoneal covering, measured three quarters of an inch in thickness.

The urinary bladder, in structure undiseased, was exceedingly contracted, and consequently thickened, the effect of long-continued irritation, from sympathy. The cavity would scarcely contain a table-spoonful; the inner membrane was exceedingly vascular. *

* A coloured engraving of the appearance of the bladder is given in my *Observations on the Diseases of the Urinary Organs*.

CASE 7.

Inflammation of the Colon, terminating in Effusion.

The subject of the following case was a lady, whose complaints had, by various practitioners, been attributed to disease in the liver; upon which presumption she had, in the early part of her illness, been repeatedly subjected to the influence of mercury, without benefit. Of several who had seen and attended her, Dr. HOOPER was the only physician who could never be persuaded to believe her complaints hepatic, notwithstanding constant local uneasiness, frequently severe pain, and a degree of tumour below the cartilages of the ribs on the right side, with occasional pain at the shoulder. The action of the bowels was irregular: sometimes there were twenty-four stools in as many hours; at others, strong purgatives were required to be frequently given for days together, without effect.

A variety of medicines were directed; but opiates only, when powerful, gave much relief. In the latter period of her illness, I was desired to see her on account of dropsy. She went through the operation of tapping four times, and on each of these occasions I drew off, on the average, four gallons of fluid. She died February 12. 1820.

On examination, I found a thickened, dis-

coloured, soft and elastic tumour lying across the upper part of the abdomen, a circumscribed portion of which tumour had visibly raised the external parietes, previous to their being laid aside. From the right extremity of this tumour several strong adhesions passed off to the adjacent surface of the parietes; from its anterior part also several short thick cords, the result of adhesion, were firmly attached to the peritoneum, just within the scrobiculus cordis. The tumour itself turned out to be the stomach, and transverse arch of the colon, closely and completely adherent to each other; the former viscus much discoloured, the latter much diseased, so altered in texture, and so much thickened, as to have entirely lost its natural characters.

The tumour, which during life had given an additional cast of ambiguity to the case, proved to be merely a part of the stomach, that comparatively, from the adhesions by which at most other points it was confined, had occasionally formed a tender, irritable, and painful point, externally.

The adhesions just mentioned were exceedingly strong, and all proceeded from the colon, which had evidently been the seat of the primary inflammation. The bands attached to the scrobiculus cordis clearly explained the distressing sense of gnawing, or burning, or glowing heat, with the occasional sense of pulling, or drawing at that part, from which she was never altogether free.

The ascites proved to have been merely the consequence of the derangement in the function of absorption, resulting from the first inflammation; for the liver was healthy in structure, although its peritoneal covering was somewhat thickened.

CASE 8.

*Inflammation in the Colon, followed by Stricture.**

For as many as seven or eight years before his death, the Rev. Dr. M—Y had usually about twenty purging stools in the course of the twenty-four hours, from a complaint in his bowels, which he believed originated in a blow previously received upon the side of the belly. The principal seat of this complaint he always pointed out so exactly in his emaciated state, that it was observed at the time it must be in the colon, where it passes down on the outside of the left kidney. It was thought probable there might be some contraction or ulceration at that place.

About three years before his death he had a fistula in ano, for which he was successfully cut, and, from the time of the inflammation that led to the fistula, he was sensible that the lower part of

* Extracted from the MS. in Mr. HEAVISIDE'S museum, where the diseased parts are preserved.

the rectum remained in an awkward uneasy state, rendering it painful and difficult to introduce the tube, in giving an injection.

Subsequent to this period his medical friends were of opinion that no more could be done than to palliate, and procure sleep. He was directed to have recourse to opiates, and was at times, by these means, much refreshed and comforted. He latterly became exceedingly emaciated, from the ill state of his health, added to close application to the duties of his profession, which, notwithstanding pain and sickness, he never willingly neglected. Before he died, his legs became dropsical, and swelled very much.

On examining the body, the opinion formed of the disorder proved to be correct. The small intestines were healthy ; the cœcum, and beginning of the colon, much inflated, but not inflamed. The transverse arch of the colon was also much inflated, but it had likewise the appearance of inflammation. The distended part of the colon terminated opposite the lower end of the left kidney, where there was an annular stricture of the gut. At this part the contracted intestine had the feel of firm flesh, and had evidently suffered previous inflammation. The diseased intestine being slit up, was internally inflamed, and superficially ulcerated, particularly towards the seat of the stricture. At the stricture the passage was very small, winding irregularly

through an inch and a half of compact but ulcerated substance. Below this, where the colon passes over the psoas and iliac vessels, it was in its natural state. The rectum had suffered much from disease, and, for a finger's length to within two inches of the anus, was contracted almost to the size of a goose-quill, and of a livid colour. The lower two inches of the rectum were not so much contracted, but of the same livid colour. The inner surface of this part of the gut was traversed by many short flattened bands, somewhat resembling the fasciculated structure within the heart. This latter appearance was the effect, no doubt, of inflammation, at the time when the abscess formed, near the side of the gut.

CHAPTER II.

ON ULCERATION OF THE INTERNAL SURFACE OF
THE INTESTINE.

SECT. 1.

On the Causes of the Disease.

51. THE variety of effects produced by sympathetic affections, and the irregularity of symptoms, frequently make it difficult to ascertain the causes of disease. We know that inflammation so generally precedes ulceration, that we are naturally led to conclude these two actions necessarily connected together, as cause and effect, and that the latter must be invariably preceded by the former. The certainty of this point, however, may, I think, be doubted.

52. In some late researches into the minute appearances of disease in the bones*, I have unquestionably detected absorption, or in other words ulceration, unconnected with any character of preceding inflammation; and in the dissection of those

* Published in the Transactions of the Medico-Chirurgical Society.

who have died from disease in the alimentary canal, I have in various instances found so little trace of inflammatory action around spots of apparently recent ulceration, that I cannot help believing that, under some circumstances, irritation arising in the bowels, may establish a degree of excitement sufficient to induce ulceration, without any distinct sign of inflammatory action.

53. In considering the occasional causes of irritation in the bowels, it has often appeared to me that the functions of the liver, and consequently the properties of the bile, are very much influenced by external circumstances; and that those who are but little exposed to the inclemency of weather, are nevertheless liable to suffer from an acrimony in the bilious secretion, as a consequence of common cold, an effect quite distinct from the increased quantity of thin mucous fluid excreted from the bowels in dysenteric diarrhoea; the first exciting a distressing sense of heat, and even excoriation about the anus; the second passing off without any such irritation, although they are both occasionally attended with an irksome sense of weight, and bearing down in the rectum. These observations, which I have very repeatedly had the opportunity of making when abroad with the army, have lately been set in a correct, though conspicuous point of view, in the valuable works of Dr. JOHNSON, on "Atmospheric Influence," and on the "Diseases of Tropical Climates."

54. Inflammation alone may produce ulceration of the mucous membrane of the bowels, but I have most commonly observed this change occur where inflammatory action has evidently operated in connection with irritation, from the presence of acrimonious matters in the intestines. In one instance I have found irritation from the long-continued passage of the urine through the rectum, in a case of diseased urethra and prostate gland, produce ulceration of the bowel, inducing a very irksome and distressing tenesmus, from which the patient could never be effectually relieved.

SECT. 2.

On the Symptoms and Appearances of the Disease.

55. ULCERATION in the bowels will, in its commencement, generally be connected with pain in some part of the abdominal region, usually acute, and more or less intense, dependent on the turn of constitution favouring either phlegmonous or erysipelatous action.

56. Obstinate costiveness, extreme tenderness or severe pain in the belly, heat of skin, thirst, and white tongue, hard and quick pulse, will sometimes lead to a suspicion of acute inflammation, requiring diligent attention, and the most active treatment;

while in other cases with heat of skin, thirst, foul tongue, and local pain, the pulse, although quickened, will not be remarkably hard.

57. Where, consequent to some of the above signs of inflammation, ulceration follows, it will be either circumscribed, or diffused. When this process is circumscribed, I think the danger greatest, for in these cases principally I have found the ulcer penetrate through the muscular and external coats of the intestine, an event almost uniformly fatal. Where, on the other hand, the ulceration is diffused over a surface of considerable extent, the intensity of the preceding inflammation may be presumed to have been less, at least I have in various instances found a great extent of bowel thus affected, without its having penetrated beyond the internal or mucous membrane of the gut.

58. Should ulceration make its way quickly through all the coats of the bowel, the escape of its contents into the general cavity of the abdomen immediately follows; an event productive of the most distressing pain, and extreme tenderness of the belly, with increase of fever, from peritoneal inflammation, which under these circumstances is, I believe, invariably fatal.

59. In some cases, inflammation affects all the coats of the bowel at the same time, a circumstance that frequently is the means of saving the life of the patient. Coagulable lymph is poured out upon

the bowel, producing adhesion either to the external parietes of the abdomen, or to some other part of the intestinal tube, by which assistance the ulcerative action making its way through the mass of lymph, produces an outlet for the contained matters through the external integuments, or effects a passage out of one into another part of the intestinal canal; in either case preventing the mischief that would arise from the contents of the bowels escaping into the general cavity of the belly. Sometimes the adhesive process puts an entire stop to the further progress of mischief. The symptoms and appearances connected with this tendency are strongly illustrated in the 86th case, in the Surgical Observations.

An instance, showing that the process of adhesion, though a salutary effort of nature, is not always to be depended upon, may be found in an interesting case, where it may be taken for granted there had been ulceration of the mucous membrane of the colon, although in examination after death no remaining trace of inflammation appeared. It is related by Dr. STOKER, in the Transactions of the Irish College of Physicians. In this instance, irritation from the perpetual load of contents had brought on ulceration; although the accidental bursting of the weakest part of the over-distended bowel proved the immediate cause of death.

60. Provided the ulceration is merely superficial, every thing may go on smoothly, and end well. The constitutional symptoms under proper treatment giving way, the ulcerated parts may become clean, and assume healthy actions; suppuration be succeeded by cicatrization, and as the extent of exposed surface diminishes, the strength will improve, the constitutional sympathy evinced by the foul tongue, heat of skin, and disturbed pulse, will decrease, and at length entirely vanish.

61. The preceding observations more immediately regard primary affections of the bowels; but it is of equal importance in a practical point of view, to recollect that the intestinal canal is sometimes affected secondarily, under circumstances which nevertheless may concern the safety as well as comfort of the patient. Inflammation may come on, and abscess follow in some part of the abdomen, attended with fever, local tumour, and pain, where every thing will depend no less upon the watchfulness than the discernment of the practitioner.

62. The probability of matter having formed, must be judged of by the diminished hardness of the pulse, and the decline of the other feverish symptoms; by the cool and relaxed skin, the decrease of local pain, and generally, also, by the occurrence of rigors, or chilliness. The favourable view here, is the hope that the abscess may,

through the medium of adhesion, attach itself to some part of the bowels, and in this way find an outlet consistent with the safety of the patient. In this event, the ulcerated opening in the bowel, abstractedly, is of no real importance, it merely allows the escape of matter, as long as necessary; when the abscess has contracted and closed, it readily heals up. (Case 9.)

63. The appearance of blood in the stools, independent of piles, has been held to be a criterion of ulceration in the bowels. Upon this evidence, however, I place no reliance. It is true, that in dysenteric complaints, when the urgency and straining to pass a motion is perpetual or violent, blood is frequently voided, and it is reasonable to believe it proceeds from the ulcerated parts of the bowels, where these are low down; but ulceration frequently exists in the superior parts of the great intestine, where these irksome symptoms can have little influence; and this circumstance may explain why in some cases the stools have never been tinged with blood, notwithstanding ulceration of the mucous membrane of the bowels has been found to exist after death.

In point of fact, the motions being free from blood, is no proof that the bowels are free from ulceration; neither does the presence of blood in the stools prove ulceration to have taken place.

64. I have in several instances attended persons

attacked with severe pains and relaxation in the bowels, the evacuations having more or less the appearance of pure blood; in two of these cases the same kind of matter was repeatedly rejected by vomiting. The attack has continued some time, the fluids passed sometimes resembling thick, dark, bilious stools, at others appearing like grumous unhealthy blood. In these complaints, the fits of griping pain have occurred after the manner of spasm, being presently succeeded by a free evacuation, from which the patient has experienced temporary relief. The quantity of this fluid matter passed at one time has been frequently equal to one, two, or even three pints.

The real nature of this disorder has been hitherto but little investigated. In one case, however, in which a second attack terminated fatally, with permission of the physician who had attended, I availed myself of the opportunity for ascertaining the seat and cause of the hæmorrhage, and I think of the disease also. The bleeding had taken place from the capillary or exhalent arteries upon the internal surface of the great intestine, and although it was evident that every part of the bowel had been a bleeding surface, no part had suffered ulceration, nor was any part inflamed, though the whole was very red. *

* Practical Observations in Surgery, Case 83.

On comparing the symptoms that attended in the above case with what I had previously seen of a similar kind, I was convinced that this disorder is a consequence of a particular stage of the scorbutic diathesis ; although it is not always attended with the spongy state of gums, which is one of the strongest general characters of that disease. Taking it upon this ground, I have since been enabled to succeed in curing the complaint. The opinion that the fluid usually voided in this disorder is principally blood, was that of an eminent and excellent professor of the Edinburgh school. *

65. The appearances that occur upon dissection, in ulcerated bowels, will vary. In the early progress, the blush of increased vascularity will be more extensive, but as certain points of intense action become established, the excitement upon the intermediate space declines, till at length ulceration takes place. When the cellular membrane is once exposed, it may fall into a sloughy state, from the debility incident to previous excess of action, or from the presence of acrimonious matters in the bowels, now brought into immediate contact with it. Should the constitutional health be good, this may not occur ; healthy suppuration may take place, and the excitement being moderate, a granulating surface forms, soon beginning to heal

* Dr. HOME. Clinical Experiments.

over, and eventually covered with a cicatrix of a fine smooth texture.

66. The new surface thus produced, is not to be supposed in all respects equal to the original structure. On the contrary, it is destitute of the power of absorption, one of the functions of the natural mucous membrane; it is also found to resemble other newly formed parts, in being more irritable than the original surface of the intestines. From these two circumstances are derived the only permanent inconveniences I know of, resulting from ulceration in the bowels, where the complaint ends favourably; and they generally escape observation, unless where the disease has been severe. Should, however, a large extent of intestine have been so affected, the diminished quantity of support derived to the system by absorption, and the constant tendency to diarrhœa, from extreme irritability, have arrested the progress of recovery after the ulcerated parts had healed, and have subsequently proved fatal, in spite of every effort that could be made to counteract their influence. A striking and singular demonstration of these curious facts is brought forward in another place. *

* Practical Observations in Surgery, Case 77.

SECT. 3.

On the Treatment.

67. THE symptoms that lead to a suspicion of inflammatory action in the bowels, ought in every instance to be watched with the closest attention ; for it frequently happens, that pains, at first occasional and spasmodic, will very quickly take on the permanent and serious characters of inflammation.

68. The medical treatment of inflammation must be directed entirely by circumstances (31.). The continued exhibition of mild aperients, in divided doses, will in these complaints frequently operate well by passing through the bowels, although at first they may have been rejected by vomiting. The combination of the neutral salines with the infusion and tincture of senna, are, I think, in general less apt to produce sickness than castor oil, but it will be often necessary to try a variety of medicines before any succeed. With a view to moderate arterial action, it may be also expedient to direct, at intervals, some of the saline diaphoretics. A large and gently laxative enema, if ordered to be carefully and slowly injected, will sometimes by its volume, as well as warmth, assist essentially in promoting salutary action in the bowels.

69. If the patient be young, and the symptoms strongly marked, with much pain and local tenderness, the practitioner will require all his discernment in determining the moment for having recourse to the lancet and warm bath. The benefit to be derived from the former means is well known, and the powerful influence of the latter is sometimes very great. I recollect trying it once to the fullest extent, in the hospital of the 82d regiment. A boy had a most obstinate attack of inflammation on the lungs, resisting very large and repeated bleeding, blistering, and every other means usually employed. The oppression and severe pain in the chest remaining unabated, and the pulse failing so as to render the further abstraction of blood positively unsafe, I determined that at least he should not die of the disease, if I could help it; and therefore directed the hospital serjeant to set him in a warm bath, and keep him there till he fainted away; then to lift him out, and lay him between warm blankets till he revived, when he was to be again immersed in the bath till he fainted a second time. He was directed to continue these successive operations until the boy felt relief in the chest. The experiment succeeded completely, after several immersions the complaint gave way, and the young man recovered perfectly.

70. A very essential, if not the most important point, consists in establishing a free and relaxed

state of the bowels. Till this point is achieved, the patient cannot be considered safe; but this once effected, and febrile action somewhat relieved, the case will, or at least ought, to end well, with the assistance of proper saline or antimonial diaphoretics, and due attention to diet, which, during the season of convalescence, should be of the lightest possible description.

71. Where the symptoms indicate a tendency to erysipelatous action, the abstraction of blood must be directed with caution, the dependence being rather upon diaphoretics and opiates, in small doses, taking great care at the same time to ensure regular action of the bowels, by the occasional use of gentle aperients.

By these means, ill consequences may generally be prevented, the inflammation being subdued without allowing time for the establishment of serious mischief; sometimes, however, it happens otherwise, and ulceration may then ensue.

72. It has been observed (60.) that where ulceration is confined to the mucous membrane, the complaint may be frequently relieved and cured, provided the real nature of the case is known, and the treatment adapted to the state of constitution, as well as to the local affection. That ulceration, when it extends through all the coats of a bowel, must be almost invariably fatal, is proved by the appearances and symptoms in Cases 78. and 79., in the Surgical Observations.

73. The probability of ulceration having made its way through all the coats of the intestine, must be calculated from the duration and degree of the early symptoms, contrasted with those that may subsequently arise, from a sudden attack of peritoneal inflammation, without any obvious external cause. Under such circumstances, every exertion should be made to keep down arterial action, by blood-letting general and local, and by every other means. The possibility of this event, in any case of ulcerated bowels, will point out the necessity for keeping a watchful eye upon the progress of the disease, without exciting unnecessary alarm in the minds of the family, yet with care that the moment new symptoms arise, their probable importance may be so appreciated by the friends of the patient, as not to subject either the discernment or the conduct of the practitioner to unmerited censure.

74. Where there is reason to believe ulceration of the mucous membrane of the bowels has taken place, the most minute attention must be paid to diet, and to every circumstance that can, in any way, influence that curative process, the accomplishment of which rests with the powers of the constitution.

75. A principal object will be to prevent the formation of any acrimonious matter in the bowels, taking care to preserve an easy and regular transmission of their contents. We must observe with

attention, through the pulse and tongue, the ever-varying state of the system, and either raise it carefully when prone to depression, or cautiously moderate any tendency to excess of tone; thus endeavouring to maintain that quietude of balance most conducive to eventual recovery.

76. These observations are the result of experience, and not of reading. I have constantly found that where ulceration in the bowels has once taken place, the least irregularity in diet, the most trifling derangement of stomach, will excite uneasiness, or pain, in the seat of the complaint; and in those cases where, from the ulcer being low down, it could sometimes be partially seen, the nature and cause of these symptoms have been proved by the unfavourable change manifested in the appearance of the ulcerated surface.

77. The indications to be held in view may be occasionally forwarded by the use of mild diaphoretics, but will generally be fulfilled most advantageously by the exhibition of light tonics, combined either with aromatics or opiates; the effect of these means being occasionally regulated either by castor oil, or some other aperient.

78. Where an ulcer is sufficiently low down to be within reach in an examination per anum, it has been supposed that the disposition of the diseased surface may be improved by the injection of astringent fluids into the rectum. Upon any

treatment conducted on this principle I should place but little reliance. Not that I have frequently found it fail, having little experience of the effect of local applications under these circumstances; but well knowing that the habits and structure of all parts of the alimentary canal are very much the same, I am persuaded that the most useful, and in general the only successful, efforts to remove or to relieve the disease, must be made through the medium of the constitution; taking care to prevent the occurrence of local irritation, as already stated.

Where the ulceration has been confined to the sphincter of the anus, I have, in one instance, derived advantage by applying a solution of the *argentum nitratum*. (Case 11.)

79. When an ulcer in the bowels proceeds from an abscess in the neighbourhood, the treatment must be directed to the abscess alone, the ulcerated opening from it being of no comparative importance. In this case, the first attention must be paid to the employment of all the usual modes of depletion, while there is any chance of preventing the more serious consequences of inflammation; when these fail, fomentations and poultice will generally succeed in bringing the abscess forward; and when the contents have made their way into the bowels, the copious discharge of blood and pus will sufficiently explain the state of the case,

and according to circumstances indicate the propriety of having recourse to tonic medicines, and strengthening diet, or the contrary. (Case 9.)

80. The occurrence of large discharges, apparently of blood from the bowels, is generally unconnected with ulceration; and as this particular disorder of the intestinal canal has been but little adverted to, though always serious, and often fatal, I may be excused in making some few practical remarks regarding this kind of hæmorrhage.

In July, 1811, I visited a gentleman, who towards the decline of life was attacked with this disorder. Owing to various circumstances he had long experienced a declension both in health and spirits; when he was suddenly seized with a severe vomiting and purging, which, from the appearance of the stools, seemed at first to resemble cholera morbus. There were frequent spasmodic pains in the bowels, a small weak pulse, and extreme prostration of strength. The excessive debility, and the severity of the pains were such, that when the spasms came on, the accumulated contents of the rectum passed at once away, without any power of restraint. On the third day the vomiting declined, but the stools, although less copious, were now evidently blood, little, if at all, changed by mixture with other fluids. Mr. HEAVISIDE, who was the surgeon in attendance, had little hope of his recovery; but assisted by medicine, and a light nutritious diet, he was eventually, though very slowly, restored to health.

The next case of which I had the opportunity of seeing not only the progress but also the termination, I have formerly adverted to (64.); it was one that I could only view in the light of a scorbutic complaint. Upon several accounts this case excited my particular attention.

In January, 1817, I had again an opportunity of seeing the disease, being consulted by a man aged forty, who for several months had passed, almost daily, blood by the rectum; without my being able to trace any disease in the anus, or in the bowel above it. He some days voided a dessert spoonful, at others half a pint. It generally passed alone, but sometimes with fæces. This case was marked by spongy, but not bleeding gums; but it agreed with the others in extreme constitutional debility, and excessive depression of spirits, and might be clearly traced to a preceding course of low, poor, salted diet. I directed him to eat fresh food and vegetables, and ordered him to take also the juice of four lemons every day, in lemonade, or otherwise. In a fortnight his complaints were better, but the plan was now changed for astringents. The sulphuric acid, tincture of kino, rectified spirit of turpentine, and various aluminous mixtures, were tried in succession, but without success; they produced severe spasmodic pains, costiveness, and sickness at stomach, without in the least checking the hæmorrhage. These medicines laid aside, he was

again ordered the lemon-juice, with the addition of bark and aromatics, the bowels being kept in a state of regularity by castor-oil. Under this treatment his complaints gave way, and by two months' perseverance he found himself entirely recovered; his spirits and strength being essentially improved, and the appearance of blood in his stools quite removed.

81. Where ulcers in the bowels have healed, I have observed (66.) that the new surface is neither capable of absorbing nor of bearing irritation, so well as the original structure. The first of these peculiarities is only felt as an inconvenience where the ulceration has been extensive, but the second is often extremely distressing. The least change in diet, the least degree of cold, will bring on a sudden attack of looseness, with griping pains in the bowels, subjecting the patient to weakness, and temporary exhaustion.

82. Under these circumstances I have found no means of relief comparable to opium, judiciously administered. I say judiciously, because its power of regulating this particular disposition is entirely dependent upon its proper direction, and careful management; if carelessly exhibited, it will presently become so necessary to the patient, that it cannot be laid aside, and it may then be doubted whether the remedy may not prove worse than the disease.

83. Attention should also be paid to the clothing. The habit of constantly wearing flannel next the skin cannot be too strongly recommended, especially in this variable climate. It tends to encourage the insensible perspiration, and renders the patient infinitely less liable to cold from sudden alteration of temperature.

CASE 9.

Ulcerated Opening into the Intestines, from an Abscess.

A. G., aged twenty-two, left her place in January, 1814, with severe pain in the left side of the abdomen, and went into St. George's Hospital, where, by frequent bleedings and much care, she was in four months relieved, and discharged. She attended a family to Lisbon, but frequently felt the old pain in the old spot, with a sense of swelling inwardly, and acute or throbbing pain.

June, 1816, she came into the St. George's Infirmary for venereal eruptions, of which, by mercurial frictions, she was cured. A considerable excitement, on this occasion, produced neither pain nor change in the internal tumour, which seemed to vary in size, but was generally, to her feelings, equal to a large orange. Soon after she

left the house, the swelling enlarged with a burning heat and throbbing, and a flush of inflammation on the corresponding part of the integuments.

In October she again came into the Infirmary, supposed pregnant; but tenderness, local pain, and being perfectly regular, made it improbable. The internal heat and throbbing increased daily, with extreme tenderness, and much pain in taking a deep inspiration.

She was blistered and leeches repeatedly, to no purpose. The blisters having excited excessive irritation, fomentations were applied, and continued till December 30., when, after increased suffering, she became uncommonly easy, felt sick at the stomach, and presently vomited a quantity of blood and pus. The sickness repeatedly returned, and in the course of the day she threw up nearly a quart of the same kind of matter; and also passed several stools, similar to what had been rejected by vomiting.

The occasional returns of vomiting, or purging, or both, brought away frequent and large quantities of offensive purulent matter streaked with blood; and thus continued till July, 1817, when they finally left her, under the use of various tonic medicines, by which she was restored to perfect health. In the following year she became pregnant, and was safely delivered of a large and healthy child.

CASE 10.

*Ulceration of the Colon.**

Sir S. M., in the year 1780, fell from the deck of his ship, and struck his side violently against the edge of a boat lying alongside. By this accident he was confined, and it was many months before he was well enough to stand upright. This difficulty by degrees wore off, but he remained ever after liable to occasional pains in the part. Subsequent to this accident he was for many years before his death subject to gout, weak bowels, depraved appetite, and a winter cough.

In February, 1795, he was much exposed to the cold of a very severe winter, and to use his own words "he felt his bowels chilled;" from this time he was never well. It was thought to be suppressed gout, and he went to Bath for ten weeks, to no purpose. Almost every night he had now great pain in his bowels. From these attacks he was generally relieved upon passing two or three motions, more or less purulent.

Thus he went on, having alternately, as he described them, two kinds of pain; one, a grinding, gnawing, and oppressive pain; the other, (which

* Extracted from the MS. history in Mr. HEAVISIDE'S Museum, where the disease is preserved.

always preceded a motion,) of the common griping kind. Latterly, both these kinds of pain came on in an aggravated degree every second or third day; then, by giving a purge, a great quantity of offensive purulent fæces were brought away, relieving him for a few days till his pains returned. His sufferings increased; he continued to languish only till the following October, when he died.

On examination, the viscera of the abdomen in general were found tolerably healthy; the principal disease being confined to the lower end of the ileum, cæcum, and especially the colon, in that part of its arch directly under the part where the bruise had been received fifteen years before. The whole length of the colon had suffered inflammation, and this had connected itself with ulceration through the whole extent of the mucous membrane of the bowel, the coats of which were three or four times their natural thickness, the diameter of the canal being diminished in the same proportion.

CASE 11.

Ulcer in the Rectum.

A gentleman, aged thirty-two, visited London for advice. He complained of constant pain, and soreness about the anus, with frequent returns of

tenesmus, and bearing down. On examination, I found two small hæmorrhoidal swellings at the side of the anus. At one part the surface was ulcerated, and the ulcer, partly external, extended itself for some distance within the sphincter. His physician directed such medicines as were best suited to improve tone, and restore strength in a weak and irritable constitution. During several weeks various local applications were tried without benefit. Dry lint was then used alone; the surface improved, but did not heal. The lint was now dipped in a solution of five grains of the *argentum nitratum*, in an ounce of water. This produced a smarting pain, but its good effect was soon manifest, for in three days new skin began to form; in a fortnight most of the external ulcer was cicatrized; and in a month more, that part of it within the sphincter was also healed. This might have been presumed, by the relief experienced from irritation and tenesmus, but it was proved by examining the parts when protruded.

CASE 12.

Ulceration with Tumour in the Rectum.

J. Earle, aged sixty-three, after having been several years subject to diarrhoea, for many months

to constant pain in the loins, and still more lately to a severe pain in the rectum, opposite the middle of the sacrum, was admitted, under the physician's care, into the St. George's Infirmary, where he became exceedingly emaciated, and at length died, exhausted by constant pain and irritation. The stools latterly were as frequent as every hour, although he took scarcely any support; the motions were generally fluid, but rarely fæcal. About three months before his death, the rectum had been examined, but nothing particular was ascertained.

Dr. JAMES, who had paid the most humane attention to the poor man through his illness, considering his complaints had not been perfectly understood, requested the body might be opened. The examination was made January 29. 1819. On opening the abdomen, a circumscribed tumour, the size of a hen's egg, was felt within the rectum; the bowel was therefore removed and opened. The lower end of the intestine for the space of five inches above the sphincter was healthy, and consequently the disease could not have been felt in examining per anum.

The disease itself consisted of two flattened tumours, apparently a deposit in the cellular texture, between the inner membrane and the muscular coat, which by pressing the two sides of the gut together, might partially have impeded the

passage of contents, although the bowels were found empty.

The irritation from this disease must have been great, for one of the inner surfaces had ulcerated into a deep cavity, the mucous membrane round the margin of the ulcer being thickened and pulpy, and its texture rendered indeterminate by small specks of blood effused into its substance. The projecting edges of the ulcer lay beyond the basis of the tumour within the intestine. On dividing through the substance of the tumour it was in some parts firm and compact, as if small tubercular deposits of fatty, white-coloured matter had taken place into the cellular membrane. The muscular coat was perfectly healthy.

CHAPTER III.

ON THE GROWTH OF TUMOURS WITHIN THE BOWEL.

SECT. 1.

On the Causes of the Disease.

84. **T**HE formation of tumours within the rectum is not a frequent consequence of disease. When it does occur, it is sometimes beyond the reach of surgery to remove, or even relieve. Occasionally, it is otherwise. I have seen several instances of disease of this kind, of which I have not preserved accurate notes. In one of these, had the patient felt sufficient confidence in the means proposed for his relief, an operation might have been performed with success. The late Mr. HEY of Leeds has published a case of this kind. These remarks will show the importance of considering and discriminating this disease in practice.

85. The determining the particular cause that may have produced any complaint of this description will generally be difficult. In a few in-

stances it would appear to be referrible to some mechanical irritation, disturbing the healthy actions of the part. In one case it followed the operation for fistula in ano; but most commonly it would appear that a latent disposition, either in the part or the constitution, is merely called into action by some local irritation.

86. M. DESAULT considered the formation of tumours and obstructions in the rectum as frequently caused by venereal complaints imperfectly cured. He styles them scirrhus affections; but, I presume, it may be taken for granted that he renders the term rather comprehensive than correct, since he relates, under this title, two cases, both of which were cured by compression only.

That disease of this, or indeed of any other kind, may sometimes occur in those who have formerly had venereal complaints, is so clear, that this circumstance seems to afford a very inconclusive argument in favour of any necessary connection; and even should mercury, under suspicion of venereal taint, have been employed, and that with success, it still appears to me that, considering how frequently the mercurial stimulus has excited absorption in other diseases, there will be much stronger ground for determining that the complaint was not scirrhus, than for asserting that it was venereal.

SECT. 2.

On the Symptoms and Appearances.

87. THE early progress of tumours in the rectum will rarely excite much attention ; particularly as the functions and feelings incident to the bowels are occasionally subject to some variation, even in perfect health.

The first circumstance, perhaps, that may draw the attention, may be a sense of local uneasiness, or pain : but this symptom, as far as I have seen, having been always connected, either with confinement or relaxation of bowels, the inconvenience has been naturally attributed to the only obvious cause ; and the means adopted under this impression succeed at first in relieving, if not removing the complaint.

88. These remarks, however, apply only to tumours formed between the coats of the intestine, and even in these there will be exceptions, where the disease assumes the appearances and follows the usual course of scrophula in other parts.

When a tumour is projected from the inner membrane of the gut, attached by a narrow neck, I have known it reach the size of a large chestnut, without any symptom, except trifling pain in passing a confined motion.

M. DELPECH mentions an instance in which several tumours of this kind, in the rectum, excited tenesmus and frequent griping pains in the bowels. Upon one of these occasions the violent contractions of the intestine ruptured the neck of one of the tumours, which, voided by the anus, led to examination of the parts, and the consequent detection of the disease.

89. In the progress of the complaint, symptoms become more distinct; and, provided the disease is situated between the coats of the intestine, and has, consequently, an intimate connection with the surrounding structure, there will, in some cases, be constant uneasiness, or sense of weight, or occasional paroxysms of pain about the sacrum. When, on the other hand, the patient is only incommoded by occasional obstruction of the passage of the fæces, the tumour will generally be found so attached as to admit of removal by an operation.

90. In the advanced stages, where the disease has been extensively diffused through the cellular membrane, I have seen frequent and sometimes excessive hæmorrhage from the external surface of a soft tubercular mass, the blood not having been effused from an ulcerated part, but poured out by the exhalent arteries disposed upon the surface of the disease. Under these circumstances the blood accumulates in the rectum, till, exciting a painful spasm, it is expelled, and the patient is relieved.

I once examined a person having a tumour in the rectum, attached by a narrow neck, about three inches above the sphincter. It gave no pain under examination, was moderately firm, but appeared to be softest towards the surface, from which there had been repeated bleeding. In this case, although the disease was hæmorrhagic, and had excited tenesmus, it was painless, and might have been safely removed.

91. One of the most distressing symptoms produced by tumours in this situation, is the consequence of irritation from sympathy of parts. Sooner or later an irksome diarrhœa takes place, from the increased quantity of fluids poured into the bowels; a complaint that, while it harasses the patient, diminishes his strength, and eventually renders the stomach irritable, and incapable of its proper functions.

92. The structure of many of these tumours exhibits exactly the appearances that are observed in scirrhus affections in other parts of the body. The scirrhus tumour seated in the coats of the intestine, and projecting into the cavity, I have seen, but believe it to be extremely rare. The soft tumour I have found, in connection with similar disease, either in the bladder in the male, or the uterus in the female.

SECT. 3.

On the Treatment.

93. THE first object in this as in all other diseases, must be to obtain a clear and correct knowledge of all its circumstances. The practitioner, therefore, when from symptoms he is led to suspect the seat of the complaint, must point out the necessity for making more particular enquiry, in the way of examination, as the only means by which a clear idea can be obtained regarding the figure, firmness, irritability, or sensibility of the disease. By these means alone can the information be acquired which is necessary, for the deciding whether the affection is, or is not, of such nature as to admit or require being relieved or removed by an operation.

94. Where a tumour is found to be small in size, of moderately firm texture, and not painful under gentle pressure, benefit may probably be derived from the occasional introduction of an instrument capable of making a degree of pressure. In some circumstances, this purpose may be answered by the elastic gum bougie, in others the mode recommended by M. DESAULT may be preferred, a bougie of lint supported by a concealed probe, being at intervals allowed to remain for a time in

contact with the tumour. Whatever instrument is used, the degree of pressure, and the frequency of its repetition, must be regulated with care, according to the patient's feelings, and the tendency manifested by the disease.

95. The disease may on examination be found to possess the firmness of scirrhus, or it may, on the contrary, have the soft consistence of fungus hæmatodes. In either state the use of bougies will be more likely to aggravate than to arrest the progress of the complaint. In both these forms of disease, the only principle to be kept in view, is that of attending diligently to the daily progress of symptoms, endeavouring to relieve them as they occur, either by the judicious exhibition of opiates, or some other of the means mentioned as appropriate for the treatment of stricture (49.).

96. The soft pulpy tumour generally becomes, sooner or later, subject to hæmorrhage; this is consequently a circumstance that may at any time require attention. The object, however, is merely that of restraining a flux of blood, without expecting the removal of the cause by any thing that can be proposed in the way of treatment. The present loss of blood may be generally arrested, by directing a strong astringent injection to be thrown up. This may, according to circumstances, be an infusion of roses, decoction of oak-bark, of the rind of the pomegranate, or strong infusion of galls; any

of these may be rendered more powerful by the addition of a concentrated aluminous solution.

97. When, from the irritation of the disease, nausea, vomiting, or diarrhœa supervene, medicines must be directed to quiet these complaints. The most useful remedies for this purpose are opiates, and aromatics.

98. The appearance of purulent matter in the stools certainly argues the existence of ulceration ; but whether the ulcerated surface is exposed towards the cavity of the gut, or otherwise, can only be known by an examination per anum, the most satisfactory of all methods of enquiry, where the seat of the affection is within the reach of the finger.

99. Suppose the disease is known to have ulcerated, I am not acquainted with any plan of treatment that has much chance of success ; as, however, it is our duty to attempt something, I should recommend those means that might operate through the medium of the constitution, either with a view to improve strength and moderate excessive action (77.), or diminish excessive irritability, according to circumstances.

Should the tumour be such as to admit of removal by an operation (88.), the ligature may be recommended. Preparatory to its application, it will, however, be right to empty the bowels. As to the particular mode of applying the ligature, no specific direction can be given. When the tumour is

large, or its attachment high up, advantage may be gained in the freedom of operating by dilating the sphincter, by the previous introduction of sponge tent.

In the application of the ligature, the manner which I think best, from having found it most convenient in the extirpation of an exceedingly enlarged tonsil, is that recommended by Ambrose Pare. It is a simple ligature of sufficient strength, with a running noose at one end; this adjusted round the basis of the tumour, the loop is tightened by an instrument with a small ring that runs freely over the line, pushing the knot before it, and consequently diminishing the noose, or tightening the ligature to the degree required. In some circumstances, perhaps the ligature may be better applied by a canula.

100. Any tendency to inflammation previous to the dropping off of the ligature, may be checked or regulated by occasional warm emollient injections, assisted by fomentations externally.

M. DESAULT mentions his having removed by ligature a tumour of this kind the size of a hen's egg; its attachment was near six inches above the anus; the ligature came away on the eighth day, and the patient did well.

101. Where the tumour is within view, M. DESAULT recommends the ligature to be first secured, and the tumour then cut off, to avoid the offence from

its mortifying, and the injury that might arise from excoriation of surrounding parts. These reasons, however, are not of sufficient weight to counterbalance what has always appeared to me objectionable in the practice. It is clear that any living part falling into a state of decay, must be offensive ; but it is to me equally clear, and that from long observation, that when a part is thus destroyed, the perfect mortification of the dead part assists in completing that process of vitality by which the ligature is separated ; and as the application of a ligature now and then excites much constitutional irritation, so is it an object that may regard even the safety of the patient, to attend to every circumstance that may assist in completing that ulceration by which the ligature is to be eventually thrown off.

CHAPTER IV.

ON PROLAPSUS ANI.

SECT. 1.

On the Causes of the Disease.

102. THE verge of the anus, surrounded by a strong band of muscular fibres, and supported in its place by other muscular expansions, is occasionally subject to relaxation; and any circumstance that favours this relaxation may become a cause of prolapsus ani.

103. Disordered states of the bowels are among the most frequent causes of this complaint. Diarrhœa, by weakening the constitution, and particularly the intestinal canal, is sometimes the means of inducing prolapsus ani, although it is more commonly brought on by attacks of cholera morbus, or dysentery. The irritation from worms, or the rough operation of drastic purgatives, will not unfrequently produce it. I have seen several instances of this in children, and was very lately consulted by a young lady, who, when a child, had

been subject to worms, for which her mamma was persuaded to give her a patent worm-medicine: this operated so violently as to produce a prolapsus ani, to which she has ever since remained subject.

101. One of the most formidable instances I ever witnessed of this infirmity was in 1815, in a poor man, forty-one years of age, in whom it was brought on, together with the more common symptoms of colica pictonum, by working at his business as a house-painter.

105. Habitual confinement of bowels, and the occasional straining incident to such state, are frequent causes of prolapsus. The pressure of the gravid uterus, by impeding the functions of the bowels, or any other circumstances that either prevent their regular action, or induce violent efforts, will bring on this complaint. The severe pains of labour favour its production, and especially the straining and tenesmus occasioned by an irritable bladder, whether this is dependent on stricture in the urethra, stone, diseased prostate gland, or any other cause.

SECT. 2.

On the Symptoms and Appearances.

106. THE order of the symptoms is subject to much variation. In some the disease appears

suddenly, in others its approach is almost imperceptible. In young children, who, either from having been too long kept at the breast, or from bad diet, possess a weakened and relaxed fibre, it commonly appears to arise from mere debility in the sphincter, which giving way, allows the bowel to be suddenly protruded, sometimes to a considerable extent. In grown persons, however, I have scarcely ever seen it take place in this manner; it is most commonly produced by slow degrees. In the efforts to relieve the bowels, a fullness is usually first observed about the anus; soon after this, a thin fold of the inner membrane of the gut, generally very vascular, may be perceived to protrude; and this becomes more manifest, till at length a tumour of considerable bulk is formed. This tumour, at first only a production of the inner membrane, subsequently consists of a portion of the entire bowel, protruded completely beyond the verge of the anus. The degree of protrusion may be such as to show that, although the bowel is connected by its peritoneal covering, as well as by its blood-vessels, to the spine, these parts are occasionally capable of great relaxation, where the complaint is gradually formed. I have, in various instances, seen in young children the prolapsed part of the bowel produce a tumour four or five inches in length; and in the adult subject, especially in aged persons, have found the volume of

the protrusion exceed the size of a large orange. A late writer speaks of an extent including several feet of intestine being thus circumstanced * ; but this must be regarded as, at least, a very unusual occurrence.

107. In the examination necessarily connected with the reduction of these tumours, it has frequently appeared to me that the protrusion, although favoured by a relaxed sphincter, has been partly the consequence of relaxation in the coats of the bowel itself. I was very lately able to confirm the accuracy of this opinion by examining the remains of a man who died of apoplexy, and who, for years, had been subject to a prolapsus of the rectum. On opening the body, the intestines in general were not deficient in tone ; the rectum and anus were removed. For near six inches the bowel was enlarged. The superior part of the intestine, contracted and firm, did not exceed the diameter of half an inch ; the inferior, relaxed, flaccid, and unresisting, was nearly three inches in diameter. As the whole of the intestine was empty, the comparative state of its different parts was more readily determined ; and it was evident that, while the upper part had retained its healthy tone, the lower portion had long lost its power of action, or resistance, and was subject to every im-

* DELPECH.

pression, either from contents or surrounding parts. The muscular fibres of the longitudinal bands, perfect upon the contracted, were dispersed and lost on reaching the dilated portion of the intestine. The volume of the relaxed part of the bowel about equalled the quantity I had on one occasion found protruded, when requested to visit him, about five months before his death.

108. In its natural state, the internal surface of the rectum is soft, tender, and moist; but I have, more than once, in persons who were in years, found the protruded part of the gut, by long exposure, very much thickened, of more firm texture, and dry, appearing in fact like a part covered with strong integuments. Where this change has taken place, I have not found reduction always practicable. M. LIEUTAUD seems to have met with this state of parts, which he terms scirrhus: he says, “ La partie du rectum déplacée, devient quelquefois squirrheuse; et l’on a alors beaucoup de peine à la faire rentrer.” *

109. Where the sphincter has not entirely lost its power of action, the constriction may produce either a partial or total arrest of circulation in the prolapsed parts, inducing mortification. The risk of this event forms one of the strongest reasons in

* Précis de la Médecine, tom. iii.

favour of immediate reduction, in most tumours of this description.

110. It now and then happens that complaints similar to the above in external appearance, but of a more complicated nature, fall under observation ; and unless the practitioner is previously aware of the exact relation that the one case bears to the other, he will not discern accurately between them, and will certainly not adopt the curative means that are most likely to succeed.

111. The intestinal canal, a continued tube possessing peculiar powers, may be expected to be subject to peculiar affections. It is susceptible of partial and transitory contraction, is highly elastic, and generally contains air more or less extensively diffused through its cavity. Owing to these and other circumstances, it is occasionally exposed to an accident that cannot occur to any other part of the body. It is liable to have one part of its tube thrust forward, as it were, into that which is immediately before it, in the course of the canal, forming an intus-susception.

112. This accident in young children, while the parts still retain much of their original tone, is sometimes extremely dangerous, and when it produces symptoms, it generally terminates fatally ; but in grown persons I have frequently ascertained its existence in examination after death, without any reason for thinking it had produced incon-

venience, much less danger, owing as I believe to the gradual loss of tone, which very commonly renders the bowels in advanced age indisposed, even to the requisite degree of action in propelling their contents.

The manner in which the small intestine ileum terminates, by insertion into the comparatively large head of the colon, will in some degree explain why the former part is now and then found included within the latter: where the circumstances producing this kind of derangement continue to operate, the displacement may go on increasing to an astonishing extent. I have in several instances found a considerable portion of the colon, together with the cœcum, and part of the ileum, included within the lower end of the colon and rectum. (Case 16.)

113. Should this peculiar state of parts occur, in conjunction with relaxation of the sphincter, there is nothing to prevent the inverted part of the bowel within the rectum protruding outwardly. This protrusion has taken place, and it is very important to know also that it has most frequently been mistaken for a common prolapsus ani. Provided, however, the practitioner has previously formed a clear idea of the two cases, and the exact relation the one bears to the other, there will be no difficulty in at once distinguishing them.

114. In the prolapsus ani, the lower end of the

bowel, or that directly above the sphincter muscle, will be first protruded; it will be inverted, and confine within it a corresponding extent of the un-inverted gut next above it. Now, if in examination a probe be introduced between the circle of the relaxed sphincter and that of the prolapsed bowel, it will of course be prevented passing inward by the position of the parts, the rectum being folded down immediately within the anus.

In intus-susception, on the other hand, the rectum is no further concerned than in having permitted the superior part of the bowel to pass into its cavity, and consequently if the portion of intestine that may have protruded through the anus be examined, a probe may with the utmost ease be passed freely up between the sphincter and internal surface of the rectum, and the supposed surface of the inverted colon, and may also, without the least difficulty, be passed freely round the whole circle of the sphincter, between it and the prolapsed intestine.

This distinction is of much practical importance; the want of it may involve the character of the practitioner, and infinitely diminish the chance of recovery of the patient.

Where intus-susception has taken place to such an extent as to have brought down the small into the large intestine, and particularly where the bowel so circumstanced is protruded beyond the

anus, it constitutes a case of the most serious and critical description, compared with a mere prolapsus of the anus. The difficulty and uncertainty of the event in any attempt at replacement in the first case is infinitely great, while in the second, there is commonly little or no difficulty at all.

SECT. 3.

On the Treatment.

115. THE particular nature of the cause will determine the treatment required for the removal of this complaint. Where it occurs in infancy or early youth, as the result of extreme laxity of fibre from too long suckling, it is scarcely necessary to observe that till the child is weaned, no plan of cure is worth the trial. Should a similar state of constitution have been favoured by a poor and unwholesome diet, this point also must of course be regarded in the treatment. The state of the habit must be corrected by the use of tonics, as bark, steel, and the cold bath, aided by an appropriate diet. Under this plan, with constant attention to preserve regularity in the action of the bowels, the protrusion will often become less considerable, less frequent, and will eventually cease to return at all.

116. Prolapsus now and then occurs under the operation of drastic purgatives, where there is no natural disposition to the complaint, for which the required treatment will be some attention to rest, and more to the avoiding the repetition of the cause, by any immoderate irritation of the bowels.

117. Where prolapsus in the adult has been brought on by diarrhœa, dysentery, or colica pictonum, attention may be required for the local complaint, but no material step can be taken toward its cure, till the disorder of the bowels is removed, or the constitutional state corrected.

118. Prolapsus connected with labour pains is generally of temporary duration; the cause upon which it depends being transitory, the parts generally soon recover themselves.

119. In reducing a prolapsus ani, the application of gentle pressure, the fingers being previously moistened with oil, is usually all that is necessary; it frequently happens that if the patient reclines on a sofa or bed for half an hour, this alone will enable the parts to recover themselves, or should the prolapsus not return spontaneously, it may then be reduced in the manner above-mentioned.

120. When, from neglect or other cause, the quantity of the protrusion has become considerable, its reduction may not prove so easy. The object in operating must then be to return that part first, which was last pushed down, to effect which, one

of the fingers may be gently insinuated into the cavity of the protruded bowel, and may be made very useful in facilitating the reduction of the prolapsus; these endeavours of the operator being assisted by keeping a steady and equal pressure upon the other parts of the tumour.

121. Should inflammation and constriction have taken place, active measures will be necessary for the prevention of serious mischief to the bowel, which, unless relieved, may fall into a state of gangrene. Immersion in the warm bath may here prove useful, it will favour relaxation, and sometimes render reduction practicable. If this should not succeed, leeches or cupping-glasses may be applied in the immediate vicinity of the parts, and the warm bath or fomentations be then repeated. By these means I believe almost every prolapsus of the rectum may be safely returned, at least I have only once seen them fail, and then it was owing to the long neglect of the patient, from which the protruded bowel had become excessively thickened and indurated.

122. Tonic and astringent applications, as fomentations or injections, have been directed by various authors for the relief of prolapsus; but having often tried these means without material advantage, I now very rarely mention them. Instruments for keeping up the parts are almost entirely useless.

123. I shall now point out what I conceive to be the best mode of curing this disease by an operation.

In the year 1802, I assisted Mr. HEAVISIDE in removing some hæmorrhoidal tumours. The patient was a gentleman who had come up from the country for advice. Three ligatures were applied, and the consequent inflammation was considerable. The benefit derived from the operation exceeded expectation, for upon his recovery he mentioned that he had for some time been subject not only to the swellings now removed, but also to a protrusion of the bowel whenever he went to stool, but since the operation, this symptom had entirely disappeared.

124. This circumstance struck my attention, and, on seeing the observations subsequently published by the late Mr. HEY, of Leeds, the conclusion I had formed as to the above case was confirmed. Mr. HEY was consulted for a prolapsus ani; and, finding the sphincter surrounded by a pendulous flap and other protuberances, he determined to remove them, "in the hope that the inflammation caused by the operation would produce a more firm adhesion of the rectum to the surrounding cellular substance," so as to prevent any return of protrusion. His operation was successful, as Mr. HEAVISIDE's had been; for in each the prolapsus was cured. Mr. HEAVISIDE operated with

the ligature, Mr. HEY by excision; each mode gave the same result.

125. Here then we have at once the safest and best principle upon which to operate, for the effectual removal of a prolapsus of the anus, or rectum. The other methods of treatment are palliative; but this may, in every instance, be so modified, as to effect its purpose with security.

126. As to the manner of operating, I prefer using the ligature: because I have known excision fail, but not the ligature; although I have seen it used by Mr. HEAVISIDE, and had recourse to it myself, in very many instances. Previous to operating, the bowels should be emptied by some cooling aperient. Provided, in the operation, any small projection or fold of integuments is found at the verge of the anus, it may be taken up, and will generally answer the purpose: if, on the contrary, the parts around the sphincter are in a perfectly natural state, the tenaculum may be passed through a small extent of the fine integument, at the verge of the anus, carefully avoiding the muscular fibres of the sphincter. The part raised is then to be encircled with a ligature, which being tightened completes the operation.

127. It is necessary that the patient be kept quiet for a few days, while the effect of the operation is attended to. If little inflammation takes place, it need not be lessened; if too much,

fomentations and the other proper means will moderate its violence.

128. Where hæmorrhoidal tumours exist, in conjunction with prolapsus ani, the operation that cures the one, if properly performed, removes the other also.

129. From what I have seen, I may venture to assert, that whenever, in early youth, the bowels have been for many days obstinately confined, notwithstanding proper medicines, there will be reason to suspect the existence of intus-susception. This is a fact that cannot be too extensively known to parents as well as practitioners. Every medical person whatever considers himself competent to direct for what appears to be mere confinement of bowels; and, as the number is not small of those who apprehend no ill until either the evil itself, or its fatal consequences, stare them in the face, the above caution may not be without its use.

It is not always a pleasant duty to point out the expediency of taking a second opinion, yet it sometimes is a duty; for in the few cases I have examined of this disease, the patient has, in every instance, died without any suspicion as to the real state of things; while it may be presumed that, had the timely assistance been requested of some surgeon who had seriously applied himself to the subject, life might have been saved, or, at least,

some exertion have been made to secure so desirable an object.

130. In some remarks annexed to a case of intussusception, published some years since, in a truly valuable work *, I suggested, that perhaps the cautious introduction of a large-sized bougie might prove useful in restoring the bowel to its proper situation; but, from one examination I have since made myself, and from another at which I was present, I should now recommend the adoption of other means.

131. The first point is to establish the fact, which, in either of the instances I have seen, could at once have been determined by an examination per anum. The next great and essential object is to remove or diminish the constriction, which, in every case I have seen, has existed at that part where the inversion of the external bowel begins. This object must positively be achieved, even though with some risk. For its accomplishment, the warm bath may be tried, and, by a proper apparatus, the vapour of warm water may be copiously injected into the bowels. The belly must then be gently, but diligently rubbed, in order to produce diffusion of the vapour. If, in the course of this operation, the mass of displaced bowel is found, by examining per anum, to have retired upwards

* Edinburgh Medical and Surgical Journal.

at all, it may be taken for granted that some part of the intestine is already reduced, a conviction that will afford the best encouragement to perseverance. An additional volume of warm vapour must be rather forcibly injected into the rectum, and the frictions upon the abdomen be repeated, until, by perseverance in the use of these means, the intruded bowel can no longer be felt in the rectum by the finger, or a large-sized elastic catheter carefully passed along the bowel; and, in short, till castor-oil, or some other aperient, has produced a clear passage through the intestinal canal.

132. The above mode of operating, if well managed, may sometimes succeed; but should it fail, something more must be done without loss of time, for I have already stated that the constriction is considerable, and must at all events be relaxed; for if this does not happen, the intestine cannot be returned, and consequently the patient must perish. Should then the vapour of warm water, or warm water itself, aided by the other means, fail, I would not hesitate a moment in trying myself, or recommending to others the tobacco fume injection, as by far the most powerful application known, and also as capable of such cautious adoption as to be attended with very little risk, while in fact no other means that I know of, will afford, under these perilous circumstances, the least chance of success.

133. In performing the operation, if the patient be a young child, the tube of the apparatus being secured within the sphincter, one or at the most two compressions of the bellows may be made, and if more inflation be required, it must be completed with common air, care being taken to prevent the escape of the first, while the second is introduced.

If by this operation, followed up by diligent frictions upon the abdomen, some action and rumbling in the bowels in the course of an hour be perceived, without any material impression upon the pulse or skin, one or two more puffs of the fume may be ventured upon, as one or two hundred are sometimes borne without inconvenience by a grown person ; and in this way, by repeating the same series of operations with precaution, and yet with perseverance, there will be every reason to hope for a successful event.

134. I am aware it may be objected, that in some of the few cases that have occurred, neither the nurse nor the practitioner have been able to make an injection pass. That of course is a difficulty ; and if there were no difficulties in the way, the case would be straight forward. The operator must or ought to be a surgeon, prepared to meet and capable of meeting every incident that can occur. A great deal, as relates to the event, will depend on the manner in which the operation is conducted. When the tube of the apparatus is

introduced, pressure round the verge of the anus will frequently prevent or at least impede the escape of the smoke, until it has produced some effect upon the nearest part of the bowel, after which it will be found very capable of making its own way.

135. The above practical suggestions are applicable to those cases in which there is no outward proof of the existence of the complaint: should the protruded bowel have fallen so low as to appear externally, the event of the case will still depend on the relaxation of the constriction in the superior part of the intestines. Under these circumstances the tube of the fume apparatus must be carefully and effectually inserted between the sphincter ani, and the prolapsed bowel, so that the lower part of the rectum may still, as before, be the part inflated. The fume will thus be made to operate where its influence is most wanted, and produce the greatest possible benefit with the least possible risk. Were the injection, on the other hand, made into the orifice of the protruded bowel, instead of being passed up by its side, the fume would go further than is necessary, and its influence on the constriction be diminished in proportion, while the impression upon the system might prove unpleasant or alarming.

CASE 13.

Prolapsus of the Rectum.

M. R. complained in October, 1819, of some painful swellings at the verge of the anus. They first appeared during a very severe cold, from sleeping in a damp bed about a twelvemonth before. In September, 1819, she was exposed to much fatigue from very laborious work, when in straining to pass a costive stool a very painful protrusion of the bowel first took place. The prolapsus generally returned whenever she voided a motion, but most extensively when the bowels were confined; although gentle pressure in the horizontal posture always enabled her to return it again.

October 23. I found on examination, a cluster of common hæmorrhoidal tumours, one of the largest of which was secured in a ligature. The parts fomented, the consequent inflammation was moderate. The ligature fell off on the sixth day, and within three weeks the ulcer left by the ligature was healed, and the complaint, to her great comfort, perfectly cured. She was, however, allowed to remain in the house for several weeks afterward, to ascertain that the complaint was permanently removed.

CASE 14.

Prolapsus of the Rectum.

A. S., aged sixty, was admitted into the St. George's Infirmary the beginning of August, 1819. She said that about a twelvemonth before she had a severe disorder in her bowels ; violent relaxation, with bearing down, and voiding of blood. During this attack, which continued five weeks, the heavy straining first caused a protrusion of the intestine, which suddenly came down to the extent of several inches with distressing pain, and a heavy dragging sensation at the loins. She lay down, and pressed it back as well as she could ; but her motions, frequent as ten or twenty in the day, always brought it down again.

In the following April she had a troublesome diarrhoea, in which almost every kind of food, with sudden griping pains about the navel, past quickly through the bowels, producing much bearing down, and more prolapsus.

For the first fortnight after her admission into the Infirmary, she had frequent thin stools, occasionally tinged with blood. The intestine examined per anum was relaxed, and felt as if the upper had fallen down into the lower part, the whole being thrown into loose folds. On straining to

pass a motion, she voided little else than a thin serous fluid, but complained much of her usual dragging and griping pains. The bowel was now down, and in numerous concentric folds or plaits, formed a tumour as large as half an orange ; it was however easily reduced. She was ordered to take regularly the decoction and tincture of bark ; an injection containing eight ounces of the decoction of oak-bark, with one ounce of alum, was also directed to be thrown up twice a day.

August 18. The pains in the back were much relieved, the bowels more regular, and the appetite improved ; she even thought that the protrusion of the bowel was much diminished. The medicines were continued.

September 14. The disordered state of the bowels greatly relieved, but after a motion had been passed, I found the prolapsus just the same as ever. A part of the inner membrane of the gut, just within the sphincter, was therefore raised by the tenaculum, with the intention of applying a ligature ; but the weak pulpy surface gave way in the attempt. I then passed the instrument through another part of the same membrane, including a small portion of the integument external to the verge of the anus. This was tied firmly, and the patient was put to bed.

Little inflammation followed, and the ligature dropped off on the third day. For a few days her

bowels were relaxed, and a trifling degree of protrusion was perceived ; her bowels after this acted more regularly, and she had no return whatever of the prolapsus.

CASE 15.

Prolapsus Ani.

C. P., aged seventy-eight, had been for two years subject to prolapsus ani, when he was admitted into the St. George's Infirmary, October 4. 1819. The protrusion, which had commenced without any obvious cause, was at first occasional, but soon became more frequent ; latterly it seemed to have induced repeated attacks of looseness, a complaint he never had before.

When admitted, his bowels were relaxed. On examination, several small folds of integument were found at the verge of the anus. The prolapsus, when it occurred to its usual extent, included about four inches of the lower end of the gut.

October 5. The largest of the small folds of skin external to the sphincter was included in a ligature. The operation gave but little pain. On the following day, the surrounding parts were very tumid and heated. When he passed a motion the

protrusion returned, to about one-fourth its usual quantity. Fomentations were directed to be applied.

October 10. The ligature had fallen off, and the tumefaction quite subsided. He had three motions this day; the verge of the anus was just perceptibly prolapsed on one, but on neither of the other occasions.

December 20. There had not been the least recurrence of the prolapsus, the parts having completely and permanently recovered their tone.

CASE 16.

Intus-Susception of the Bowels.

October 13. 1818, I examined the body of a large healthy looking child, who had died the preceding evening, at the age of twelve months, from disordered bowels; and had suckled heartily only an hour previous to his death. For several weeks an apothecary had attended, and directed medicine, at first to remove relaxation, but latterly to relieve costiveness. For a week before his death he suffered constant uneasiness, with so much straining that blood was voided in the fruitless attempts to pass a motion. These symptoms increased, but the child had no more motions, notwithstanding the most active medicines were given, of which

some were retained, but most rejected. Repeated attempts were made to procure relief by throwing up an injection ; but although the tube was fairly introduced, the mixture would not pass, but returned immediately.

On dissection, the bowels were found inflated. The stomach appeared uncommonly large and vigorous, but touched with the finger it instantly subsided. This arose from an extensive disorganization of its substance, a change in which the stomach had been passive ; in colour it was white, as if boiled, and when suspended in water, it was impossible to distinguish the fragments of its coats reduced in different degrees from the bilious and half-digested milk contained within its cavity. This unexpected state was the consequence of the digestive action having seized upon the viscus itself, almost before it could be said to have lost its vital principle.

On further examination, an intus-susception of the whole extent of the colon was discovered to have been the cause of death. The load of contents within the rectum was very great, and extended downwards quite to the sphincter of the anus. This state of parts had commenced by the lower end of the ileum being pushed down into the larger cavity of the colon ; this protrusion having next inverted the head of the colon, and progressively the whole of the remaining part of the in-

testine, which was thus dragged gradually down through the rectum till it had reached the perineum.

The present dissection afforded the clearest proof that the fatal constriction exists at the upper extremity of the intus-susception, as already stated. At this part the ileum was received, and another portion of small intestine, the latter having been drawn in by the mesentery attached to the ileum, that had passed down before it.

The displaced parts consequently included the whole of the colon, the cœcum with the appendix cœci, the lower part of the ileum, with a part of another convolution of the small intestine; the inverted head of the colon being the part which must have appeared externally, had the tumour pushed through the anus.

The inverted colon, divided longitudinally, exhibited, in a remarkable degree, the occasional effect of strangulation. It was considerably thickened, and of a dark colour, the section demonstrating that these circumstances were owing to a layer of extravasated blood, deposited in the cellular texture between the mucous and muscular coats of the bowel. Some little threads of coagulum were still attached to the openings of the overloaded capillary vessels, whence the bleeding had taken place, upon the mucous surface of the inverted and strangulated colon, just within the anus.

I lately had an opportunity of examining a preparation from the collection of Mr. C. BELL, showing a very curious and singular consequence of what I conceive must have originated in a state of intus-susception. A young man, in Feb. 1818, after labouring under all the severe symptoms of true ileus, with great danger to his life for eleven days, passed by stool a large mass of a solid substance, which proved to be a portion of intestine, partly inverted, measuring nearly thirty inches in length; after which the patient perfectly recovered.

The separated portion of bowel, which appears to be the lower part of the ileum, has evidently been cut off by ulceration at each end, a process that must have taken place at that part where the inversion commenced, in conjunction with the adhesive inflammation that fortunately succeeded in securing the remaining parts of the bowels in their newly-acquired relations.

CHAPTER V.

ON HÆMORRHOIDAL TUMOURS, OR PILES.

SECT. 1.

On the Causes.

136. **T**HE external integument, or skin, immediately encircling the verge of the anus, is liable to be distended by a deposit of fluids in the cellular membrane, connecting it with the parts beneath. This distension, which may be produced by an effusion either of blood or serous fluid, or both, constitutes the hæmorrhoidal tumour.

137. This kind of tumour, sometimes much inflamed, and often excessively painful, may arise from any irritation in or near the lower part of the rectum: it most commonly depends on some obstruction in the circulation through the hæmorrhoidal veins. Habitual neglect of the bowels, favouring the accumulation of hardened fæces in the rectum; straining to void a confined stool; the pressure of the gravid uterus, or of any preternatural tumour; a sedentary life; sudden and

violent exertion; lifting heavy weights; have, in their turn, been the means of bringing on this disease, and may be considered some of its most frequent causes.

SECT. 2.

On the Symptoms and Appearances.

138. THE first appearance of hæmorrhoidal tumour is generally connected with pain and inflammation. The patient usually complains of an uneasy sense of weight and fulness, as well as of heat, about the parts, particularly severe in passing a motion.

139. It has been already observed that these swellings arise either from a deposit of blood, or of serum, beneath the skin. This distinction appears to me worth pointing out, having learned from experience that the means calculated to remove the one kind will not relieve the other.

140. Hæmorrhoidal tumours may be numerous, or otherwise. Sometimes a single swelling only exists; more frequently there are several surrounding the anus.

141. The sanguineous hæmorrhoidal tumour will be opake, and of a comparatively dark colour, the blood sometimes shining evidently through the

skin; it will usually be of more firm consistence, and more slow formation. The serous hæmorrhoidal tumour, on the other hand, will be pale in colour, almost transparent, highly elastic, easily compressible, and soon produced: the former usually requiring a few days, the latter a few hours only for their production. The sanguineous occur in the strong, the serous are more apt to arise in the weak and irritable. In the sanguineous, the bowels are generally deficient in regularity of action; in the serous this is not so often observed.

142. These complaints, when connected with inflammation, are very painful. The patient can then neither walk, ride, nor sit; the only tolerable state being that of absolute rest in the reclined position. Should he during the continuance of inflammation be obliged to pass a motion, the distress is extreme. With these symptoms there is generally more or less feverish heat and restlessness, now and then delirium.

143. Hæmorrhoidal tumours, when inflamed, are in several respects unfavourably circumstanced. They are surrounded by parts which by their natural warmth tend to keep up, and even increase local heat; the fulness of the surrounding blood-vessels impedes the circulation, thus aggravating the pain and tension; while the heat and irritation rarely fail to excite frequent and violent spasmodic contraction of the sphincter, almost entirely

preventing the return of the blood by the hæmorrhoidal veins that pass up into the bowel between the mucous membrane of the gut and the muscular fibres of the sphincter.

144. Occasional hæmorrhage is in most cases connected with this kind of tumour. Perhaps in the efforts to pass a motion, bleeding comes on while the parts are inflamed, in this case the blood generally flows from within the anus, though it may occasionally spring from some part of the external swelling. Sometimes the bleeding will first occur and frequently return in the absence of every other symptom ; or at least without pain, inflammation, or external tumour.

145. When bleeding has once taken place it may naturally be expected to return, and almost invariably does so ; and this return of bleeding, either from its frequency or its extent, uniformly impairs, and sometimes destroys, the constitutional health.

146. The repeated losses of blood progressively lessen the powers of the system, while they introduce habits that, unless attended to, frequently prove of the most serious consequences.

147. When the quantity or volume of the circulating blood is diminished by a part being withdrawn, the loss can be repaired only by the vital powers, whose proper office it is to repair such loss, that there may constantly be kept up a sufficient store for the supply of all the wants and the fulfil-

ment of all the purposes to which the blood is subservient in the animal economy.

148. Hæmorrhage, therefore, as it induces a more rapid waste, incurs at the same time a more prompt reproduction of blood than would otherwise take place ; and it must be evident that the circulating system, under the continuance or perhaps increase of this habit, will unavoidably be subjected to great and hazardous fluctuation, exposing the patient at one time to the distressing and irksome feelings incident to extreme languor and debility, and at another to the more dangerous and suddenly alarming consequences of excessive fullness of blood.

149. Spasmodic contraction of the sphincter, in the inflammatory or irritable state of hæmorrhoidal swellings, is sometimes a distressing symptom, aggravating considerably the sufferings of the patient. Mr. HEAVISIDE has in the course of his practice, in two instances, been consulted, where inflammation taking place in tumours of this description, from exposure to fatigue, the violence of spasm in the sphincter produced complete strangulation, the parts undergoing spontaneous mortification, and the patients obtaining the advantage of a radical cure, without the fatigue of an operation. The possibility of this accident is mentioned by M. LE DRAN.

150. Hæmorrhoidal tumours occasionally occur, in connection either with inflammation, abscess, or

fistula in ano ; and in several such cases it has appeared to me that they have been the principal exciting cause of all the mischief.

151. In structure, the hæmorrhoidal tumour varies. The serous tumours are in fact little else than the temporary result of œdema, from irritation or inflammation ; the sanguineous tumour, on the contrary, is the direct consequence of extravasation of blood.

152. Where a small vessel has ruptured, it usually produces a single tumour at the verge of the anus, extremely painful, and generally somewhat heated. In one case of this kind, the patient, in passing a confined stool nine days before, felt pain at the side of the anus, which continuing, excited heat and extreme tenderness. A fluid was felt under the skin, with so much pain that I could scarcely persuade him to allow a lancet to be passed into it. This however was done, and near an ounce of blood let out. He found immediate and perfect relief, and the cavity was healed within three weeks. In another case, a woman complained of a painful swelling at the verge of the anus. Here the tumour was single, and the skin covering it irritable, shining, and livid. It appeared to have been produced by a confined stool several days before. The little coagulum of blood was let out, the pain was instantly relieved, and the part readily healed.

153. Where this complaint is the slow result of local debility, or habitual confinement of the bowels, there are generally several unequally-sized tumours round the verge of the anus; should these contain blood, it is most commonly found deposited in separate masses. In examining the structure of a tumour of this kind, the swelling, evidently produced by blood, was neither a varicose vein, nor an effusion from a varicose vein. If it had been the former, the vein might have been seen; if the latter, the effused mass would have been single. The hæmorrhage had evidently proceeded from the capillary vessels in the cellular membrane. The blood had formed cysts in the cellular texture; and the various tints in the colour of the coagula proved that some had been more recently deposited than others. In some, the same vessel had repeatedly given way, as evinced by the section exposing several concentric laminæ, the external of a brighter colour, the central by gradations darker. The number of coagula in one of these tumours must have been considerable, for upon a single section I counted eighteen; the largest the size of a pea, the rest much smaller.

154. When, from over-distension, the external skin covering a recent coagulum gives way, the vessel may continue to bleed perhaps till the patient is nearly or entirely faint; or should the hæmorrhage occur from within the sphincter, from

some one of the veins giving way, the same event may take place ; but, in the latter case, the vessel is previously in a weakened and varicose state. The accurate determination of this point has been facilitated by several recent opportunities for prosecuting the enquiry. I once ventured an opinion, that where hæmorrhage occurs from within the sphincter, it seems in general more correct to attribute it to some diseased condition of the mucous membrane of the gut, than to relaxation of the coats of any particular vessel. I now, however, know, that in hæmorrhoidal diseases it mostly arises from the rupture of a vein previously enlarged, as I have in several instances ascertained, even where there had never been external tumour.

155. When these veins, situated between the coats of the bowel, become enlarged, they raise the inner membrane of the gut ; this membrane, more exposed than before to pressure from the contents of the intestines, suffers a partial absorption at particular points : these circumstances leave the coats of the vein unsupported, and unavoidably pave the way to subsequent rupture of the vein itself. These facts will be illustrated by the cases.

SECT. 3.

On the Treatment.

156. THE relief of the serous hæmorrhoidal tumour is easily accomplished. Absolute rest for a few days, attention to the bowels, and in some cases fomentations, in others cooling lotions to the parts, will generally be all that is necessary.

157. The sanguineous hæmorrhoidal tumour is often attended with much inflammation, requiring, in addition to absolute rest, an active treatment. If the patient is of a full habit, and the parts very turgid and painful, an important step will be the application of some cupping-glasses near the parts. Leeches will occasionally answer the purpose; but if it is required to take away five or six ounces of blood speedily, the operation of cupping is much more certain, as well as more convenient. If necessary, the bleeding may afterward be encouraged by fomenting with warm water, or a poppy-head decoction. Should the bowels be confined, it may be prudent to delay for a little the additional disturbance incurred by the passage of a stool perhaps containing hardened fæces, until the symptoms are somewhat relieved; although the procuring a cool and gently relaxed state of bowels is always im-

portant, and indeed till this point is gained, little real progress in improvement can be made.

158. Should feverish symptoms demand attention, the proper means will rarely fail to relieve them; saline or antimonial diaphoretics may, if necessary, be added to aperients, and when they have operated satisfactorily there will be no objection to directing an opiate at night, to lessen irritation.

159. Painful spasm of the sphincter may generally be relieved by the continued use of warm fomentations, or occasionally by gentle steady pressure upon the tumid parts, by which means part of the blood will be made to pass inward by the hæmorrhoidal veins, relieving the sense of outward fulness.

160. If, during inflammation, bleeding comes on, it will materially assist in unloading the parts, for which reason it should be rather encouraged than repressed, unless the flow is immoderate.

161. Inflammation subdued, the parts subside into a state of comparative quietude; although the passing a motion may still be attended with some degree of pain, or bleeding, or both. In these respects, the health may generally be improved by care to avoid costiveness, and by the use of cold water locally, or some astringent application.

162. Where hæmorrhage frequently recurs, it

generally proceeds from the vessels just within the sphincter, judging from my own experience. That which arises from an external tumour may happen once or twice, but bleedings from the veins within the gut may, and frequently do, return almost daily, for many years.

163. The object which, according to my view of the subject, claims the principal regard in the medical treatment of hæmorrhoidal complaints, is to obtain a regular, easy, and natural action of the bowels, without being under the necessity of having perpetual recourse to purgatives: the consideration of this point, however, would be an anticipation of what I have reserved for the conclusion of these observations, I shall therefore pass on to state what appears to be the best operative surgery in these complaints.

164. Our views must not in the present case be confined to the mere removal of the tumours, they must be extended to the adoption of that mode of operating which will most effectually secure the patient from any future return of the disease; and this security can more confidently be expected from the use of the ligature, than by depending on the knife. The ligature also avoids the present risk of serious hæmorrhage, which even the advocates of the knife have admitted is apt to take place from the excision of these tumours, a risk

that in real importance far outweighs any objection yet brought forward against the ligature.

165. In performing the operation, it is not necessary to take up each of the tumours; if there are five or six, the tying of two or three of the largest will generally excite such inflammation as will produce a change in the texture of the remaining parts sufficiently complete to secure the patient from any future return of the disease.

166. It has been urged that the ligature is much more painful than the knife, but I have met with only one case in which it was so. It occurred sixteen years since, in a field officer in the army, who had just returned from India. The tumours which I assisted in removing were neither large nor numerous. Only two ligatures were applied, great pain, considerable fever, and some delirium, followed the operation, but the usual means for relieving inflammation, assisted by fomentations, brought every thing back in a very few days to a quiet state, without the least delay to the eventual recovery of health, or the effectual cure of the complaint.

167. The practice of some eminent surgeons, who, after having applied the ligature, open the tumour with a lancet, I never adopt; for if the ligature be tied sufficiently tight, the very reason given for the practice falls to the ground, because a part once included in a tight ligature, is so effec-

tually cut off from the living body as to be incapable of exciting any sense of pain, or of tension; besides which, the reasons I have already mentioned (101.) in favour of leaving other tumours to spontaneous decay, are equally applicable to those now under consideration.

168. Subsequent to the separation of the ligatures, the fomentations may be laid aside, and the parts may be washed freely with cold water, or kept moist with some cooling lotion, to restore tone, and promote the healing over of the ulcerated points, from which the tumours had been removed.

169. In considering the above operation, we must reflect a little upon the circumstances in which the constitution is placed by its performance. The history of such patients generally informs us that they have been for months, or years, subject to frequent losses of blood, the consequences of which upon the system have been already noticed (148.). The tumours removed, the patient finds himself no longer subject to bleeding, and usually recovers his strength very quickly. The habit, long accustomed to a drain now cut off, will require some time and some attention, in a medical point of view, before it can accommodate itself to the new order of things. The patient, under these circumstances, should hardly be finally left by his surgeon the moment the operation is performed (Case 25.), without even a caution as to any neces-

sary attention to himself in future. On the contrary, the turn of the constitution should, for some little time, be waited for, and watched; and if symptoms arise, indicating local fulness of vessels, they must be met with promptitude. Where this attention is duly shown, the patient will find himself amply compensated by eventual restoration to a good and even state of health, long unknown to him; while his professional attendant will enjoy the pleasing conviction that naturally arises from every endeavour to do good, added to the consciousness of having proved that the profession of Surgery deserves not to be held as an art, but honoured as a science.

CASE 17.

Serous Hæmorrhoidal Tumours.

A thin woman, aged forty-six, had been for years subject to severe pains in the back and loins, occasional swellings at the verge of the anus, and an appearance of blood in her stools, whenever confined in her bowels. She said that, when tolerably free from the pain in her back, an excessive irritation, just within the anus, had sometimes appeared to reproduce the external fulness, pain, and swelling. These inconveniences, however, by

attention to the bowels, and to rest, always went off again.

On the 5th of January, in straining violently, a part of the bowel protruded externally, with much pain, and an irksome complaint of bearing down. By pressure and the recumbent posture it was reduced; and by the next morning she was pretty well recovered. The prolapsus did not return.

January 28. I examined the parts, and found several small serous hæmorrhoidal tumours, with œdema of the cellular membrane round the verge of the anus. A cold lotion, strongly impregnated with the acetate of lead, was directed to be constantly applied to the parts; the patient was confined to her bed, and the bowels attended to. Under this system the tumours soon disappeared, and in three weeks she was completely relieved from all her complaints; none of which had returned when I enquired after her, four months afterward.

CASE 18.

Serous Hæmorrhoidal Tumours.

Mr. G., a middle-aged gentleman, of a heavy but weak frame, consulted me, Aug. 24. I found him in much pain, extremely depressed in spirits,

and incapable of sitting up, from a complaint he had been told was the piles, to which he had been subject for years. With great local irritation and pain, there was so much dread of passing a motion, that, although the bowels were disposed to act regularly, he generally avoided having a stool oftener than once in three or four days. The pulse was quickened, and the tongue furred.

On examining, I found several rather large tumours at the verge of the anus. These tumours were of a pale yellowish colour, almost transparent, and appeared to have arisen from irritation and pressure upon the veins of the rectum.

Strict observance of rest, saturnine lotions, and an occasional aperient, were the means prescribed; which, in a few days, so far relieved him, that he was able to leave not only his bed, but his house also; for he spent his evening in company. On examining the parts eight days after I first visited him, neither swelling, heat, nor pain remained. He was, however, desired to take some bark for a few days; subsequent to which, I took my leave.

CASE 19.

Varicose Hæmorrhoidal Veins.

May 20. 1817. I opened the body of R. P., aged sixty-six. His complaints had been a complicated

disease of the urinary organs; and the circumstance of the water having passed by the rectum for a long time before his death, induced me to examine the intestine with peculiar care.

The veins in the rectum, just above the sphincter, formed a considerable varicose cluster. In two points, but particularly in one, an angle of one of the enlarged vessels projected beyond the rest, towards the cavity of the bowel. At these points, for an oval space near an eighth of an inch in length, the dark coloured blood within the veins was so clearly apparent, that it might almost have been doubted whether there was any substance at all interposed between it and the eye. On a minute examination it appeared that at these points the coats of the vein and the internal membrane of the bowel were undergoing a progressive absorption, consequent to which, any trifling circumstance might have produced a rupture of the thin film that remained between the venal blood and the cavity of the gut.

From the appearance of these points it was evident the change was progressive and slow. Observed under a magnifying glass, the blood was most evident, and the absorption of its covering membranes consequently most nearly complete in the centre, from which to the circumference the discoloration became less perceptible, till it quite disappeared.

This dissection clearly explained the principle on which a varicose vein gives way in the rectum; proving that it may, and probably does, occur whenever such vessel is so raised beyond the general surface as to be particularly exposed to pressure from the transmission of indurated contents through the bowels, such pressure operating by exciting irritation, and absorption as its eventual consequence.

CASE 20.

Serous Hæmorrhoidal Tumours.

A man, aged forty-eight, complained in June, 1819, of pain in passing his stools, which frequently contained blood; and of a swelling at the fundament from his body coming down, to which infirmity also he said he was subject. On examination, a tumour was found at the verge of the anus. This at first looked somewhat like the protruded bowel, but proved to be several large œdematous, irritable and painful hæmorrhoidal tumours. By attention to the bowels, by the observance of rest, and by the use of saturnine lotions, the swelling was reduced, and in a week the symptoms were completely relieved; with the exception of some little remaining fulness about the parts.

This poor man had for the last twenty years been subject to an extensive ulceration upon the leg; consequent to which, about three months after the dispersion of the hæmorrhoidal tumours, a large slough formed and separated; during this process the anterior tibial artery suddenly gave way, and he died from hæmorrhage, almost instantaneously. I obtained leave to inspect the body. The lower end of the rectum was removed from the pelvis, and being laid open was carefully examined. The sphincter of the anus was unusually relaxed, directly above which the veins of the rectum were seen loaded with blood; for nearly an inch in extent they were much enlarged and varicose, raising up the mucous membrane considerably above the general surface. When washed with water, the appearance of the dark coloured veins behind the inner membrane of the bowel afforded a beautiful contrast with the brighter colour of fine arterial ramifications upon its surface.

On considering the appearances of this examination, and particularly those of the blood-vessels, it was sufficiently clear, that when bleeding had occurred to any extent from within the sphincter, it could only have been furnished by the giving way of some one of the varicose veins; the largest of which was equal in size to a goose-quill.

CASE 21.

Hæmorrhoidal Disease.

N. R., aged fifty-two, was admitted into the St. George's Infirmary, April 1. 1819. He stated that about ten years back he had been subject to frequent bleeding from the rectum; the blood flowing freely, whether the bowels were neglected, or attended to. These symptoms had continued some months, when several painful tumours formed at the verge of the anus, which for many weeks continued to annoy him with acute and shooting pains. For their removal he was advised by an acquaintance to expose the parts to the acrid fumes of burning sulphur. The experiment produced intense pain, and some inflammation. The tumours, which before were full, dry, and smooth, now became cracked, moist, and shrivelled, oozing out a serous fluid.

From this time he remained nearly free from the complaint till a twelvemonth since, when from exposure to good living and hard work, the bleedings returned, and became frequent and considerable. In place of the former tumours he was now inconvenienced by some excrescences, that excited much irritation, excreting an offensive serous moisture. A saturnine lotion was applied for two months, with-

out much diminishing the discharge, although it relieved the heat and lessened the irritation.

April 4. 1819. These excrescences were removed. As the patient had latterly complained much of weakness, and even occasional prolapsus, it was considered advisable to try whether the largest of the tumours would bear the ligature, in expectation that if it were practicable, the tone of the parts might be thus improved. A ligature was placed round the basis of the largest, but on tightening it, the substance of the excrescence was pinched out of its place, leaving its thin covering of skin behind. They were, therefore, separately snipped off with a pair of scissars.

In the early part of May he took cold, and was much disordered in his bowels; for this disorder he was seen by the physician; the complaint however increased, a colliquative diarrhœa followed, and on the 12th of the month he died.

On examination, the lower end of the rectum was found enlarged, and its coats thickened. The bowel laid open, its inner membrane appeared thickened, pulpy, and thrown into large loose folds, among which were found little masses of a transparent whitish jelly. At the posterior part of the rectum, just within the sphincter, the bowel was for the space of a shilling ulcerated, with a thickened margin, overhanging the basis. The surface of the ulcer was purulent, with numerous small

brown points, that with a glass appeared to be sloughing granulations.

Externally by a small opening a probe found its way into a sinus behind the muscular band of the sphincter, and came out upon the ulcerated surface of the bowel. The sinus passed through a little abscess that had formed in the cellular membrane. At the superior part of the ulcer within the rectum there was also a little opening, leading into another abscess not larger than a pea, seated in the cellular membrane of the gut.

Several tumid and varicose veins were seen through the inner membrane of the bowel, just within the sphincter, the varices being nearly equal in magnitude to those observed in another case, already mentioned (107.). Some of these veins were excessively enlarged, and one had ruptured into the cellular membrane, the extravasated blood forming a coagulum the size of a large grape.

CASE 22.

Sanguineous Hæmorrhoidal Tumours.

In September, 1813, I was consulted by a lady, who had been for some time inconvenienced by a complaint extremely painful in walking, or even sitting down, more particularly when her bowels were confined.

On examination I found several hæmorrhoidal swellings ; as the bowels required no previous attention, two of the largest tumours were immediately tied. Considerable pain and inflammation followed, with an unpleasant irritation at the neck of the bladder, and a mucous discharge from the vagina. Fomentations, however, with an opiate at night, very soon removed these symptoms, and on the fourth day the one, on the seventh the other ligature came away. A cooling lotion applied to the parts for a week longer completed her perfect recovery ; since which time this lady has enjoyed good health, and has had no tendency to any return of her complaint.

CASE 23.

Sanguineous Hæmorrhoidal Tumours.

Mrs. B., aged thirty-four, applied to me, April 28. 1813, on account of some hæmorrhoidal tumours. She said they had existed for several years, but had of late produced much distress, being occasionally attended with severe pain, and sometimes inflammation. There were, in this case, five distinct tumours, but I found it sufficient to tie three of the largest. The inflammation that followed was moderate, and was much relieved by fomentations. The last ligature came away on the fifth day ; and,

within three weeks from the operation, the parts had entirely recovered themselves, the patient being restored to perfect health.

CASE 24.

Sanguineous Hæmorrhoidal Tumours.

October, 1815, I operated upon Mr. M., a gentleman aged thirty-four. The tumours, of the sanguineous kind, had occasionally produced much pain and distress, and were attended with bleeding from within the anus. I applied only two ligatures, the last of which came away on the fifth day. In a few days more he felt himself mending apace, and within a fortnight after the operation the parts were perfectly healed; since which time he has enjoyed good health.

CASE 25.

Sanguineous Hæmorrhoidal Tumours.

A gentleman, in the thirty-sixth year of his age, requested my opinion in January, 1819, upon some swellings at the verge of the anus. He said, that about four years back he had consulted a surgeon of the first eminence at the east end of the town, for the same complaints, who had given him no

opinion, but had performed an operation upon him, by snipping away a small part of the projecting fold of the inner membrane of the bowel, and then cutting open one of the largest of the tumours, desiring him to keep quiet, and have a poultice applied. As, to his surprise, he saw no more of his surgeon, and had received no direction as to management, he requested his apothecary to look after him. He soon recovered from the operation, the object of which, he supposed, had been to remove the tumours themselves, as well as the frequent bleedings from the rectum, to which he had for some years been subject.

Subsequent to the operation, he found that the appearance of blood in his stools was less frequent; but his bowels, naturally disposed to costiveness, now became more confined than ever. He also became subject to a frequent attack of a new kind, a heaviness and swimming in the head, sometimes to an alarming extent, for which his physician had of late repeatedly directed him to lose blood by cupping. For these complaints he consulted me, not concealing his anxiety to avoid, if possible, the necessity for cupping, as he very justly considered it a bad habit, and of dangerous tendency. His stools at this time were always mixed with blood, of which he had lost, during the last fortnight, as much as from one to four table-spoonfuls each day, dependent on the state of his bowels. I examined the parts,

and, finding the tumours themselves did not require any immediate attention, it appeared to me that the plan most likely to serve him was to direct medicines, the object of which should be to establish a regular, easy, and gently relaxed state of bowels, not by incessantly exciting their languid power by purgatives, but by endeavouring to restore them to their natural tone, thus enabling them to perform their functions punctually and perfectly, without the assistance of aperients.

As to the particulars of the treatment, it is only necessary at present to say it succeeded, and that, in two months, he not only found himself comfortable and regular in his bowels, unsolicited by physic, and unassisted by any other means, but had lost all traces of blood in his stools. The complaint in his head also was relieved, and eventually left him entirely under the measures that were adopted; a circumstance that afforded both himself and his family infinite comfort.

In the following summer this gentleman visited Brighton; on his return to town he called, and assured me he had not passed a season in such good health, either as related to regularity of bowels, or freedom from any unpleasant sensation in his head, for many years; he also observed, that he had neither been incommoded by bleeding, pain, or external swelling.

CHAPTER VI.

ON FISTULA IN ANO.

SECT. 1.

On the Causes of the Disease.

170. THE cellular and adipose substance surrounding the verge of the anus, in common with the same texture elsewhere, is subject to inflammation and abscess. This may arise here from any of those causes known to produce these changes in other parts of the body — any external violence; any irritation within, or near the extremity of the rectum; and particularly that excitement sometimes consequent to fever. A severe cold frequently operates as a cause; excessive fatigue also has, in some instances, apparently been the means of inducing inflammation and abscess near the anus.

171. The causes productive of fistula in ano, will, as to their mode of operation, very much depend on the habits and health of the patient. Where the health is bad, and the constitutional resources deficient, I have seen the most trivial

circumstances bring on a train of ill consequences of so serious a description, as to baffle the best efforts of surgery ; when, however, the habit being sound, the case is early attended to, the most violent attack, or most alarming accident, frequently proves perfectly manageable, terminating well beyond any reasonable expectation.

SECT. 2.

On the Symptoms and Appearances.

172. THE existence of a sinus, or what has been termed a fistula in ano, has been supposed to indicate in every case a depraved habit, and in particular an unhealthy condition of the parts affected. This, however, is by no means true. The mere production of a sinus is a circumstance dependent upon a general principle that should never be lost sight of by the practical surgeon, being as frequently applicable to other kinds of abscess, as to that now under consideration. Observation evinces that wherever an abscess forms in cellular membrane, the matter is apt to burrow, where it meets least resistance ; in other words, it is disposed to extend the limits of the abscess in whatever direction the cellular membrane is most relaxed : upon this principle the matter frequently makes its

way to some extent along the rectum, penetrating between the coats of the bowel, and forming a narrow sinus, or fistula.

173. The early stage of the inflammatory attack, in the young and healthy, usually presents a circumscribed prominent tumour, heated, red, and painful; with quickened pulse, heated skin, thirst, and white tongue, dependent on constitutional sympathy. Under neglect, or mismanagement, this re-action of the system will sometimes occasion high fever, and delirium.

174. Phlegmonous or healthy inflammation in these parts would, perhaps, generally terminate in suppuration, were nothing done for its relief; but inflammatory action so readily extends itself, and the various organs in the immediate vicinity are so delicate in their structure, and so important in their functions, that decision is no less necessary than discrimination at the onset of the attack, to ensure, as far as possible, a successful event.

In no case that I know of is neglected inflammation productive of more permanently distressing consequences to the patient, than in the present complaint, although this is one of the many truths the real importance of which is seldom duly appreciated till it is learned by painful experience.

175. In some instances a considerable degree of constitutional excitement may attend local tumour, more extensive, and less distinctly circumscribed

than the above, the dull red colour, and the less elastic feel of the parts exhibiting the characters of erysipelas. There may, in this case, be more disease of cellular membrane, but the suppuration will be less perfect, and less plentiful, than in phlegmonous inflammation.

176. Occasionally the inflamed parts may assume a lurid and dusky colour, and although harder than natural, there shall be less tension than belongs either to phlegmon or erysipelas; the pulse being full and hard, the thirst great, and the restlessness fatiguing. In this state of things, unless the patient is soon relieved by medicine, the pulse, strength, and spirits, all give way together, and sink to an alarming extent. Should matter be formed, it is, as Mr. POTT has well observed, small in quantity, and bad in quality, the cellular membrane being extensively sloughy and gangrenous. This is the "suppuration gangreneuse" of the French authors.

177. Some degree of irritation at the neck of the bladder generally attends the formation of matter in its neighbourhood. This may excite uneasiness in making water, or anxiety to void the urine, or produce so much spasm, as to bring on a total retention of urine. From the same cause may arise temporary irritation, or painful fulness at the lower part of the rectum, inducing an irksome bearing down, hæmorrhoidal tumours, frequently confinement, but now and then relaxation of the bowels.

178. When an abscess is formed, a part of the surface becoming softer than the rest, the skin usually gives way, allowing the escape of the contents. Sometimes, however, I have found the first discharge arise from the sinus having burst into the intestine (Case 5.). The most common state presents a single external opening near the anus, generally with a sinus passing up the side of the bowel; in other cases there is one opening from the abscess externally, and another by the sinus into the cavity of the intestine.

179. The late Mr. POTT, in his excellent treatise upon this subject, has stated that fistulous complaints do not very unfrequently stand upon a venereal basis; and so far as the existence of sinuses communicating with the neck of the bladder, and also with stricture in the urethra, may confirm such opinion, I have myself, in repeated and frequent instances, had the care of cases decidedly of venereal origin.

180. The appearances that occur in the examination of a sinus, or fistula in ano, are usually confined to an ulcerated space, more or less extensive, in the adipose membrane near the anus, connected with a narrow canal or sinus, admitting a probe to pass for some extent upwards between the coats of the bowel; communicating with the cavity of the intestine, or not, as it may happen. The parietes of the abscess, in healthy inflamma-

tion, demonstrate the induration consequent to effusion of coagulable lymph into the cellular texture surrounding the cyst; the same appearance being to a certain degree generally perceptible along the line of the sinus immediately connected with the intestine.

118. In erysipelatous inflammation, and especially in the gangrenous suppuration, the cellular membrane exhibits the principal traces of disease; in the former case this texture is usually inflamed, and disposed to slough, in the latter it is found more extensively sloughy and gangrenous.

182. Those cases in which abscess takes place within the pelvis, or high up towards the loins, generally derive their formidable character from the circumstances under which matter is deposited, as it is almost invariably found to have injured, or destroyed, some part of one or other of the bones of the pelvis; and even the importance of these cases, is, upon enquiry, generally found to have been derived from long neglect on the part of the patient. In one case of diseased hip, connected with a sinus that passed over the tuberosity of the ischium, I found, on dissection, three or four fragments of the bone carious, separated, and black; one of the fragments had partly made itself a passage out through the soft parts. I have seen several other cases nearly similar; but in examining one where an abscess behind the rectum had formed within the sacrum, I found the peritoneum thick-

ened, sloughy, and separated from nearly the whole concave surface of the bone ; this was consequently bare, and black as charcoal ; the open texture of the necrosed bone being saturated with a dark-coloured offensive purulent fluid.

SECT. 3.

On the Treatment.

183. IN the treatment of phlegmonous inflammation near the anus, should the local heat, pain, and tumour, be considerable, we must sometimes have recourse to blood-letting. If the habit and pulse are full, as well as disturbed, a vein may be opened in the arm ; in other cases it may be sufficient to take away a much smaller quantity near the seat of the affection by leeches, or cupping. This measure may occasionally be expedient, not so much to prevent suppuration, as for the more important purposes of moderating the extent of inflammatory action, and promoting the favourable operation of the other means of relief.

184. The assiduous use of fomentations also is to be directed, and continued till the abscess is formed, and its contents discharged.

185. The central part of the tumour becoming soft, the external skin may be permitted to become thin, before it is opened with a lancet. When this

opening is made, it must be prevented from closing directly, by the insertion of a few threads of lint. After the abscess is opened, the parts may still be fomented for a few days, till all the inflammation, and most of the surrounding hardness, have subsided. Under these circumstances the cavity of the abscess, provided the discharge is healthy, will contract apace, and be very soon healed.

186. If the abscess does not heal readily, or should the flow of matter be greater in quantity, or worse in quality, than it ought to be, a probe gently introduced will easily determine whether a sinus exists, either towards the bowel, or in any other direction.

187. Should febrile symptoms be urgent, they may be relieved by some of the means already suggested (31.), without interfering with the other objects which must in the present case be held in view.

188. In the second kind, or erysipelatous inflammation, bleeding is but seldom proper, neither will the patient bear the free adoption of other evacuations. The occasional use of gentle aperients, however, will be essentially useful. Warm and emollient fomentations must be applied, and when suppuration commences, although it may be imperfectly established, it will be right to make an opening, which, by allowing the escape of matter, will diminish the risk of the further extension of disease in the cellular membrane.

189. In the third kind of inflammation, hot spirituous fomentations must be applied; free incisions be made into the diseased parts, and recourse be immediately had to medicines. The patient should be directed the cinchona, in combination with other tonics and opiates, so administered as to afford the most effectual aid, in restoring a broken constitution.

190. Where, from the formation of abscess, irritation or spasm takes place at the neck of the bladder, opiates, and a free use of mucilaginous decoctions, will generally procure relief. When this affection goes on to retention of urine, anodyne relaxation must still be the leading principle in treatment, aided by evacuations from the bowels, and also by blood-letting, together with fomentations, followed by an emollient and opiate glyster.

191. Irritation excited in the rectum, will be relieved by the gentle operation of some mild aperient, or the exhibition of a warm emollient injection. Should obstinate costiveness occur, from the accumulation of hardened fæces, no time must be lost in procuring relief, for while this state continues, every symptom will be aggravated. Repeated aperients, the injection of laxative glysters, in some cases assisted by the abstraction of blood, will be the proper means; neither must they be laid aside till there is reason to feel assured that the bowels are cleansed, and the system con-

sequently relieved, from that which experience teaches may otherwise prove a source of infinite irritation, and many distressing symptoms.

192. When abscess is formed, and its contents have been discharged, it will in general be proper to ascertain whether a sinus exists or not. If such be found, the sooner it is divided the better. In effecting this division, every surgeon who duly regards his patient's feelings, and his own character, will prefer that mode of operating, which accomplishes its object with the least pain, the least delay, and the greatest certainty of a successful event; and this mode is most certainly that in which the division is made with the probe-pointed bistoury.

193. In performing the operation for fistula in ano, a probe first passed into the sinus traces its direction and extent along the side of the gut. The fore-finger of the other hand, previously oiled, is then passed through the sphincter, so as to feel distinctly the point of the probe; this being withdrawn, the bistoury is to be lightly and gently introduced in its place, till the point of the instrument in the sinus is made to press against that of the finger in the rectum. In this stage of the operation, should no direct opening be found from the sinus to the bowel, the least additional pressure of the point of the bistoury against the finger may be made to bring them into actual con-

tact. The point of the finger now becoming a guide to the bistoury, presses the instrument on before it, so that while the finger is gradually withdrawn, the bistoury is made to cut its way out, and the operation is finished.

194. The parts are to be lightly dressed with a narrow slip of fine lint, carefully introduced along the course of the sinus, in such manner as to prevent the union or contact of the recently divided parts; for unless this is prevented, the operation may fail.

195. Where the abscess is large, or the habit unsound, sinuses are frequently found passing in various directions beneath the integuments. These must be severally laid open, and dressed regularly in such manner as to give a gentle stimulus to the parts, and to prevent any lodgment of matter.

196. In the many operations of this kind I have either performed myself, or seen performed by others, some few have been attended with a rather considerable loss of blood. But I have never known an instance in which there was the least real difficulty in restraining the hæmorrhage. The most vexatious case that has occurred to me, with its treatment, will be mentioned presently. (Case 29.)

197. Occasionally, though rarely, the disease is not capable of cure by the above means. Where the constitution is unhealthy, whether from age,

debauchery, or other cause, difficulties may arise. In one case, as fast as the divided sinuses heal, others form, and are unexpectedly discovered; in another, the sinuses, when laid open, will not heal, pouring out, for a tedious length of time, a thin offensive discharge. Under these circumstances, recourse must be had to medicine, with a view to improve the tone, increase the strength, and diminish the irritability of the system. In these cases, I have sometimes found change of air effect that improvement of constitution which medicine had failed in accomplishing.

198. It may happen that, either from inattention or ill health, the constitution may be so reduced as to render the immediate performance of the operation unadvisable; medicine must be directed, and as the appetite becomes established, and the strength restored, the state of the local complaint will be observed to improve, till at length the parts assume the appearances of health, previous to which an operation would be at least useless, if it had no worse tendency. (Case 30.)

CASE 26.

Fistula in Ano.

A. P., aged forty-three, applied to me, September 15. 1819. For two months she had experienced a

distressing uneasiness and bearing down, when moving about, particularly upon sitting down. There was also a sense of heat, with a pain which she thought proceeded from a swelling forming within the bowel. These symptoms were greatly aggravated upon going to stool.

In the course of a few days, inflammation was evident externally, with tumour and extreme pain on the right side of the sphincter. Poultices were applied, and in eight days she was relieved by the bursting of the abscess, which discharged abundantly.

The first abscess broke on the 26th of August, but a second inflammation succeeded, and after several days' severe pain some matter escaped by the former opening, September 13th. On the 15th I first visited her, and on examination found a sinus running to the extent of three inches between the coats of the rectum. At her own request I immediately introduced a bistoury, and divided the sinus. The operation was attended with little bleeding, and less pain. Under the usual treatment she went on so well, that on the 23d of the month she was walking about the room, without the least pain or tenderness; and on the 29th, (the 15th after the operation,) I found that for several days there had been no trace of discharge; on examining, the sinus was found perfectly healed, the cavity of the rectum being cool, quiet, and in its natural state.

CASE 27.

Fistula in Ano.

J. Davison, aged thirty-six, came into the St. George's Infirmary, August 19. 1818, with a purulent discharge, consequent to abscess at the verge of the anus. On examination, a fistula, extending near two inches along the side of the gut, was discovered and divided. No material bleeding followed, nor any other particular circumstance either at the time, or subsequent to the operation; which enabled the patient to leave the Infirmary, perfectly cured of his complaint, on the 7th of October following.

CASE 28.

Fistula in Ano.

A coachman, aged fifty, applied to the St. George's Infirmary, February 11. 1820. Many years subject to piles, he was attacked on the 2d instant with pain at the verge and within the sphincter of the anus, which obliged him to keep his bed. A considerable tumour had formed, extremely painful to the touch, within the bowel. On the 8th, there was more softness and less heat in the

swelling, to which fomentations were continually applied. On the following day it broke, and gave him relief by a free discharge. On the 11th, I found a fistula passing for an inch along the side of the gut, which I divided without any bleeding or much pain. The sinus did not open into the bowel. Within three weeks it was perfectly healed; and the man, perfectly recovered, returned to his work.

CASE 29.

Fistula in Ano.

A man, aged thirty-two, was admitted into the St. George's Infirmary, with abscess near the fundament. On examining, I found an extensive sinus, between the coats of the bowel. As the parts were healthy, and the poor man desirous of relief, I performed the operation immediately, laying open the whole length of the sinus, and dressing the parts in the usual manner. In the course of the evening, I was requested to visit him, and found he had been bleeding for the last hour, and from the state of the clothes it appeared that he had lost near a pint of blood. His pulse was much softer than natural. I therefore desired the whole of the bed-clothes to be thrown aside, and that he might be laid on his face, with his head lower

than the rest of his body, his hips being raised upon some bolsters and pillows. The parts, thus exposed to a current of fresh cool air, were kept covered by a succession of clothes dripping wet from a pail of cold water, and changed every five minutes. These means, which immediately arrested the hæmorrhage, were however directed to be continued for a few hours, after which a sheet was thrown over him, and on the following morning he was allowed to resume a comfortable position in bed. This man was discharged, perfectly cured, within three weeks after the operation.

CASE 30.

Fistula in Ano.

In the year 1817, a poor man was admitted, at the age of sixty-three, into the St. George's Infirmary. His complaint had originated in an abscess that had formed about seven weeks before, near the anus. The integuments were rather extensively separated from the parts beneath, the ulcerated cavity secreting an excessive quantity of unhealthy and foetid purulent matter. The low pulse, extreme debility, and great emaciation, were so many proofs of the injury already sustained by a shattered constitution. A probe readily found a sinus passing

along the side of the rectum for more than three inches within the sphincter.

The state of the case was such as to forbid the performance of any operation, till by attention to diet and medicine, the ill condition of his habit might be improved, and his strength in some degree restored. With this view, every attention was paid to the daily regulation of his diet, and the same regard shown to the adjustment of his medical treatment; but notwithstanding every exertion made for his recovery, he lost ground; his appetite and strength continued to decrease, and about a month after his admission into the house, he died.

CHAPTER VII.

ON THE HÆMORRHOIDAL EXCRESCENCE.

SECT. I.

On the Causes of the Disease.

199. THE hæmorrhoidal excrescence is commonly a small soft fungous growth, situated at, or near, the verge of the anus. This disease has sometimes been confounded with the hæmorrhoidal tumour, but the two diseases differ completely in structure, and mode of production; and require very different methods of treatment.

200. The hæmorrhoidal excrescence has by some writers been referred in every instance to a venereal origin, and it certainly does most frequently spring from this cause; but it occasionally takes place, as I have myself seen, in those who never had a venereal complaint; and WISEMAN says he has met with it in an infant.

201. Persons of a relaxed constitution, who with much exercise perspire freely, may be considered

to be in circumstances favouring the production of this complaint, unless extremely attentive to cleanliness. In one instance I have known the acrid fumes of burning sulphur bring on disease of the skin, terminating in this disease. (Case 21.)

202. When this disease is produced from a venereal cause, it appears to be mostly connected with gonorrhœa, and I believe is generally brought on by this alone; from the purulent matter by means of the linen coming in contact with the verge of the anus, which in this way may excite a similar discharge from the mucous membrane lining the sphincter, acquiring a peculiar acrimony, and eventually inducing that unhealthy state of the cutis round the verge of the anus which generates the excrescence. In these cases the disease is on examination found to excrete a foetid ichorous discharge, excessive in quantity, and extremely offensive in quality.

SECT. 2.

On the Symptoms and Appearances.

203. HÆMORRHOIDAL excrescences are generally numerous, very rarely single. They usually make their appearance near the margin, or verge of the anus; and generally arise from the inner membrane

of the sphincter. WISEMAN, to whose extreme diligence and candour the Profession are greatly indebted for much practical observation in surgery, relates a case of this kind in which so many excrescences had formed as to render it difficult to find their insertion. Five of the largest exceeded the length of an inch and a half, and were attached by narrow peduncles to the integuments; while some were found springing from the inner membrane of the gut, fairly beyond the sphincter.

204. M. LIEUTAUD observes, that in examinations after death, they have been found attached to the internal membrane of the rectum, in such number as to have hindered the passage of the contents of the bowels.

205. Hæmorrhoidal excrescences are either of a bright or a dull red, or lurid colour, of a fungous consistence, easily broken, and readily made to bleed. This is as I have found them, but M. SWEDIAUR observes they are sometimes hard and firm; and they have been described by Mr. B. BELL as occasionally acquiring the consistence of the firmest scirrhus. The last-mentioned gentleman observes, that “these excrescences seem all to be productions of the cuticle;” but, as far as observation and experience have hitherto enabled me to judge, they appear in every instance to originate in disease of the cutis, and not the cuticle.

206. M. DELPECH, who has taken a comprehensive, and in most particulars a very correct view of the present state of surgery, observes upon the hæmorrhoidal tumour, "ce que l'on designe par le terme commun d'hæmorrhoides, consiste le plus souvent dans une alteration analogue à ce que nous décrirons ailleurs sous le nom de fungus hæmatodes;" and from the description, as well as treatment recommended, it appears that the tumour and the excrescence are considered to be only two varieties of one and the same disease; which was precisely the opinion of AMBROSE PARE, in 1579.

207. It is certainly true that both these forms of disease may occur in the same patient, but this circumstance alone is no proof of their identity. The hæmorrhoidal tumour is seated in the cellular membrane beneath the skin; the excrescence in the skin itself, or the mucous membrane continuous with it. The hæmorrhoidal tumour is formed by a deposit of blood, either in dilated veins or cells; the excrescence, on the contrary, is a fungous growth, the vessels of which in no instance enlarge or pour out their blood into cells.

208. M. LIEUTAUD, speaking of the hæmorrhoidal excrescence, was aware of the importance of the distinction, for he says, "Ces tubercules, qu'on doit bien distinguer des hæmorrhoides flétries, occupent les bords de l'anús." The truth is, that

the disease, and the treatment, involve considerations of much higher importance in the one case, than in the other.

209. The hæmorrhoidal excrescence is occasionally connected with the appearance of cracks or fissures proceeding outwards from the sphincter, in the natural plaits or folds of the skin. These fissures, usually attended with an offensive discharge, so exactly resemble the rhagades that occur in venereal disease, that they have very properly been regarded as a decisive mark of venereal taint in the constitution.

SECT. 3.

On the Treatment.

210. THE treatment required will be either local, or constitutional. As a local disease, hæmorrhoidal excrescence may be readily cured in almost every instance. Where the excrescences are numerous, and mostly small, they may conveniently enough be removed, by snipping them off with a pair of sharp scissars. In some cases the scalpel may be preferred, where the basis is broad, or extensive. Should the excrescence be single, or the patient be averse to the knife, a single ligature may be applied round the base of the part to be

removed; or if the base is broad, a double ligature upon a curved needle passed through the centre, may be tied on each side.

211. From the structure of the disease, it is obvious that bleeding can never claim attention, in whatever manner the removal of the excrescence may be effected. Upon the adoption of excision a little lint constantly wetted with some cold lotion may be laid upon the parts for a few days; they will thus be kept cool until the skin heals over. When the ligature is applied, fomentations may be useful should much pain follow the operation.

212. Where the excrescences are connected not only with a discharge, but with cracks and fissures in the skin, the application of some of the various sedative or astringent solutions, containing either acetate of lead, or the sulphates of copper, zinc, or iron, may be directed. Should these fail, alterative medicines may be tried. I have never met with a case where this disease has required the full effect of mercurial excitement in the system for its cure, but it is reasonable to suppose the case may occur, and it will then be necessary to subject the patient to precisely the same means and management adopted for the eradication of any other direct venereal symptom.

CHAPTER VIII.

ON THE MEANS BEST CALCULATED TO ESTABLISH
A REGULAR STATE AND ACTION OF THE BOWELS,
AS ESSENTIALLY CONDUCTIVE TO THE PREVENTION
OF MOST OF THE ABOVE DISEASES.

213. **O**F the numerous diseases to which the human frame is subject, there are but few, very few, that may not either be produced, or greatly aggravated, by habitual derangement in the functions of the alimentary canal. The accustomed usages of society ; the nature and quantity of the food we eat ; the modes of exercise and of rest, together with our manner of clothing ; all appear to me calculated to interfere, more or less, with the regularity of action, and consequently with the proper functions of the bowels. Upon these considerations, however, I confess myself to enter with some degree of diffidence, after having read the comprehensive, and beautifully eloquent papers of Mr. ABERNETHY upon the subject.

214. The original intention of the great Author

of nature may be partially traced, in the diversity of provisions appointed for enabling the animal machine to support itself under the various circumstances in which it may be placed. The different systems of parts of which the body is made up, and the different functions assigned to those systems, display, on many occasions, the most admirable facility, as well as power, of harmonizing with each other, for the promotion of the general good, and the maintenance of health ; no one proceeding independently, but each moving forward in unison with the rest. To point out, in illustration of the present remarks, the manner in which any accidental check to perspiration is compensated by an increase in the quantity of fluid separated by the kidneys ; to observe how these glands will almost suspend their action when too large a proportion of fluid matter is passing off by the bowels in diarrhœa ; or to advert to the temporary influence acknowledged by all the internal secreting organs under any material excess in perspiration, would be a superfluous task. As facts, these circumstances, and many others of a similar nature, are sufficiently familiar ; they lead us at least to perceive that the general balance, for the regulation of which so many points have been wisely adjusted, is requisite and necessary for the general good of the economy.

215. The sedentary occupations unavoidably

followed by multitudes in civilized life are unfavourable to health, and to the general diffusion of healthy action: the vigour of circulation fails, every impression from external cold is more sensibly felt, suggesting a necessity for warmer clothing; and the habit of clothing the body too warmly is not unfrequently the means of permanently destroying the balance that ought to subsist between the bowels and the skin. Many persons have an extreme aversion to active exercise, although almost every one must have observed that a brisk walk on a cool day, provided the clothing is not quite impervious, is conducive not only to refreshment, but to the natural action of the bowels. The best proof that we generally sleep much warmer than is proper, is, I think, afforded by those who, from some accident, have been confined for a time to their bed: they all leave it in a comparatively reduced and exhausted condition.

216. As to food, Mr. ABERNETHY very justly remarks, that the ease with which it is obtained is one means of our swallowing much more than is necessary; and, as if excess in quantity was not sufficient, the very mode of its preparation is often such as to excite heat, rather than promote digestion.

217. These, and many other circumstances, have a tendency to establish the habit of confinement in

the bowels; and, as the known duty of the intestinal tube is that of transmitting its contents, and rejecting that which is no longer useful for the purposes of nutrition, it is natural to conclude that where activity is deficient, it requires to be excited; and upon this ground, stimulating or purgative medicines have been administered.

218. Purgative medicines, then, have the effect of exciting the bowels to action, inducing them to pass forward their contents. Medicines of this description have also the power of exciting, more or less considerably, an increase in the quantity of fluids poured into the intestinal canal.

219. There is yet another object to be regarded in the exhibition of purgative medicines, an object which is at least equal, or perhaps superior in importance to the rest; it is that of clearing the bowels, not from the refuse of the food, but from certain unhealthy matters, the result of morbid secretion, proceeding either from the internal surface of the intestines, or from some of the viscera immediately connected with them. The occasional existence of such matters has been adverted to by the earliest writers; but Mr. ABERNETHY is the first author who has placed them in a clear point of view, and given them their proper consequence, attributing to them, in many cases, an almost absolute influence in producing diseased structure, as well as disturbed function; although

in a few instances perhaps, the secret operation of this powerful cause of disorder has been somewhat over-rated.

220. A circumstance that occurred in the year 1808, while doing duty as Surgeon to the 82d Regiment, led me to believe, that in many cases of confinement of bowels, medicines may be so directed as to render purgatives unnecessary.

It happened that an elderly lady, residing at Scarborough, desired my opinion, requesting me to consider of some plan, by the adoption of which she might obtain a more regular action of her bowels. She had no complaint to make as to her general health; her appetite was good, and she slept well, neither did there appear to be any material defect in the condition of the digestive organs; the only objectionable circumstance being that of her scarcely ever passing a stool without the assistance of medicine. The advice, she said, she had always received from her professional friends was, that, when confined in her bowels, she must still have recourse to opening medicines; she added, that really she had taken so great a variety, and so large a quantity, that she loathed the very idea of going on, and felt extremely anxious to know if any plan could be suggested to render it unnecessary.

On reflection, it appeared probable that this was an instance of deficient action from defective

strength, and that, perhaps, by persevering for a time in the use of medicines calculated to restore tone, the bowels might recover the disposition, as well as the power, to propel their contents with regularity ; at any rate, there could be no harm in making the experiment. I therefore first ordered the decoction and tincture of bark to be taken daily. This, in a week, appeared to have done neither good nor harm ; there was no heat of tongue or skin ; but there had been occasion for castor oil. Decoction of bark was next directed by itself ; and in three weeks she thought her inside felt stronger, with less disposition to flatulence than before. In consequence of this amendment, the medicine was continued for a month longer, within which period she found there was no longer any occasion to solicit the action of the bowels at all, a regular and easy motion occurring every day. This restoration in the tone and action of the bowels appeared likely to be lasting ; for there had been no return of the complaint a year and a half afterwards.

221. The adoption of a similar principle, with some slight modifications, has, in a variety of instances, enabled me to restore to the bowels the power of acting from their own impulse, without the perpetual necessity for being reminded of their duty. To set down particular instances would, I apprehend, be loss of time ; neither have I pre-

served accurate notes but of very few. One of the cases in which this treatment completely succeeded has been mentioned. (Case 25.) I might enumerate many others, the results of which were equally satisfactory. For the present, however, it will be sufficient to observe, that I have, in some instances, at first combined the decoction of bark with a fourth part the quantity of infusion of senna, or with that proportion which answered the purpose of regulating the bowels, occasionally diminishing the quantity of the aperient, till the action of the bowels was observed to go on well with the bark alone.

Under some circumstances, the decoction and tincture of bark will answer extremely well together; but the decoction alone is, in general, less apt to require the temporary combination of Epsom salt, infusion of senna, or some other aperient.

If the innumerable train of ill consequences known to be induced by habitual confinement of bowels are adverted to, there will be no need to excuse the bringing forward any proposition that has for its object the prevention or removal of so great an evil; more particularly while we continue to retain that sort of instinctive feeling which leads us to prefer food to physic.

I am not unconscious that we are all subject to feel the bias of attachment to our own opinions,

for which reason the present remarks are intended rather as suggestions than as established truths, the practical value of which can only be absolutely determined by their being submitted to the test of more extensive experience. The ability of an individual is confined to the power of stating faithfully what he may have watched attentively, within the comparatively narrow circle of his own personal observation.

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- 1. The first of these is the power of observation.
- 2. The second is the power of reflection.
- 3. The third is the power of judgment.
- 4. The fourth is the power of memory.
- 5. The fifth is the power of imagination.
- 6. The sixth is the power of reasoning.
- 7. The seventh is the power of feeling.
- 8. The eighth is the power of volition.
- 9. The ninth is the power of habit.
- 10. The tenth is the power of custom.
- 11. The eleventh is the power of law.
- 12. The twelfth is the power of equity.
- 13. The thirteenth is the power of justice.
- 14. The fourteenth is the power of mercy.
- 15. The fifteenth is the power of kindness.
- 16. The sixteenth is the power of gentleness.
- 17. The seventeenth is the power of patience.
- 18. The eighteenth is the power of meekness.
- 19. The nineteenth is the power of mildness.
- 20. The twentieth is the power of sweetness.
- 21. The twenty-first is the power of goodness.
- 22. The twenty-second is the power of grace.
- 23. The twenty-third is the power of love.
- 24. The twenty-fourth is the power of peace.
- 25. The twenty-fifth is the power of joy.
- 26. The twenty-sixth is the power of hope.
- 27. The twenty-seventh is the power of faith.
- 28. The twenty-eighth is the power of charity.
- 29. The twenty-ninth is the power of wisdom.
- 30. The thirtieth is the power of knowledge.

THE HISTORY OF THE UNITED STATES
BY J. W. FULTON
NEW YORK: PUBLISHED BY J. W. FULTON
1840

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