

A probationary essay on morbus coxarius / submitted by the authority of the president and his council to the examination of the Royal College of Surgeons of Edinburgh when candidate for admission ... by William M. Bathgate.

Contributors

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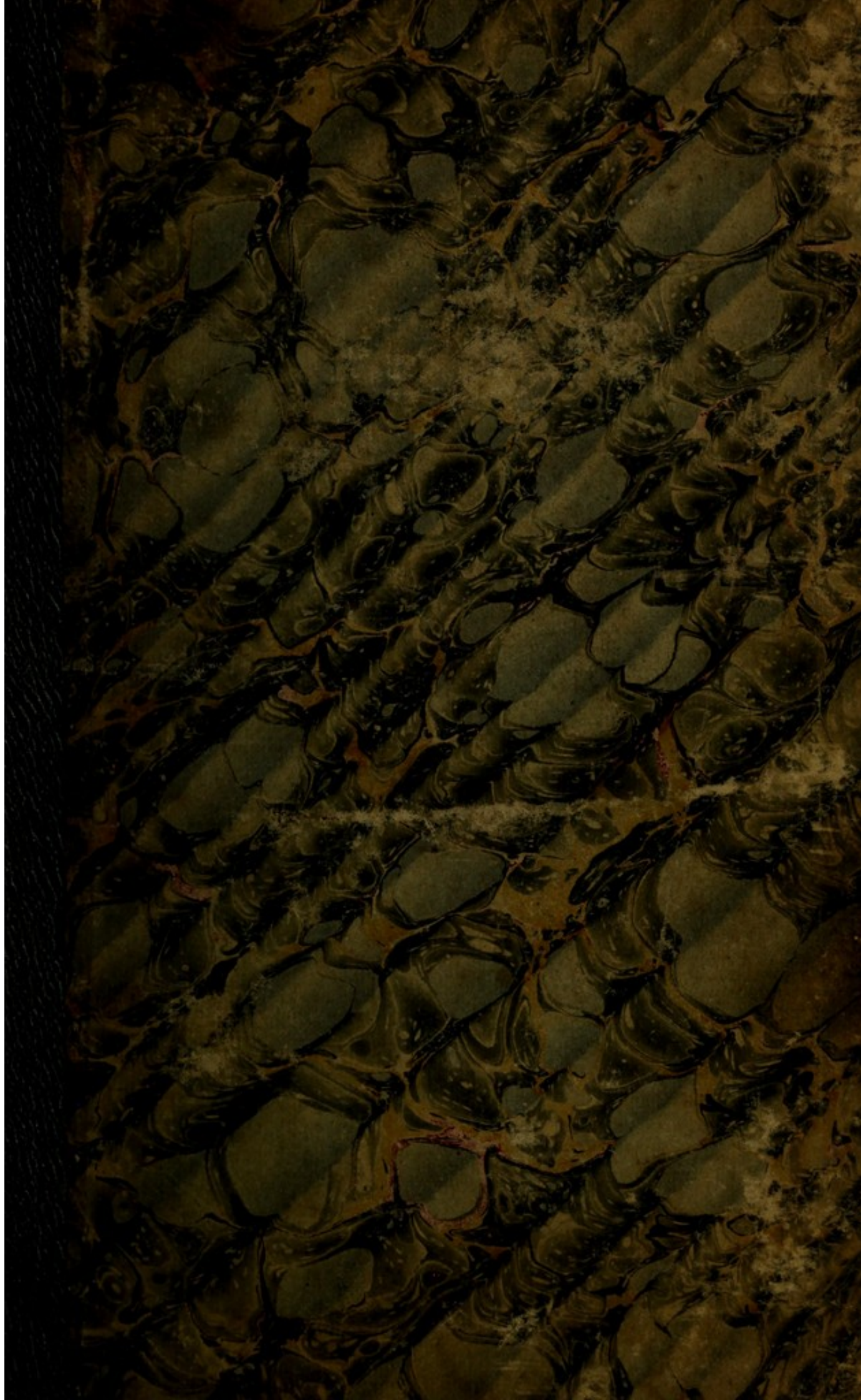
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Coxarius. Edinburgh, 1828. 30s.
8vo. Half cloth. 2 ll., 22 pp. Scarce dissertation on hip-joint disease submitted for
a Fellowship of the Royal College of Surgeons of Edinburgh.

Dearest friend
C. Corbitt

My love

in X

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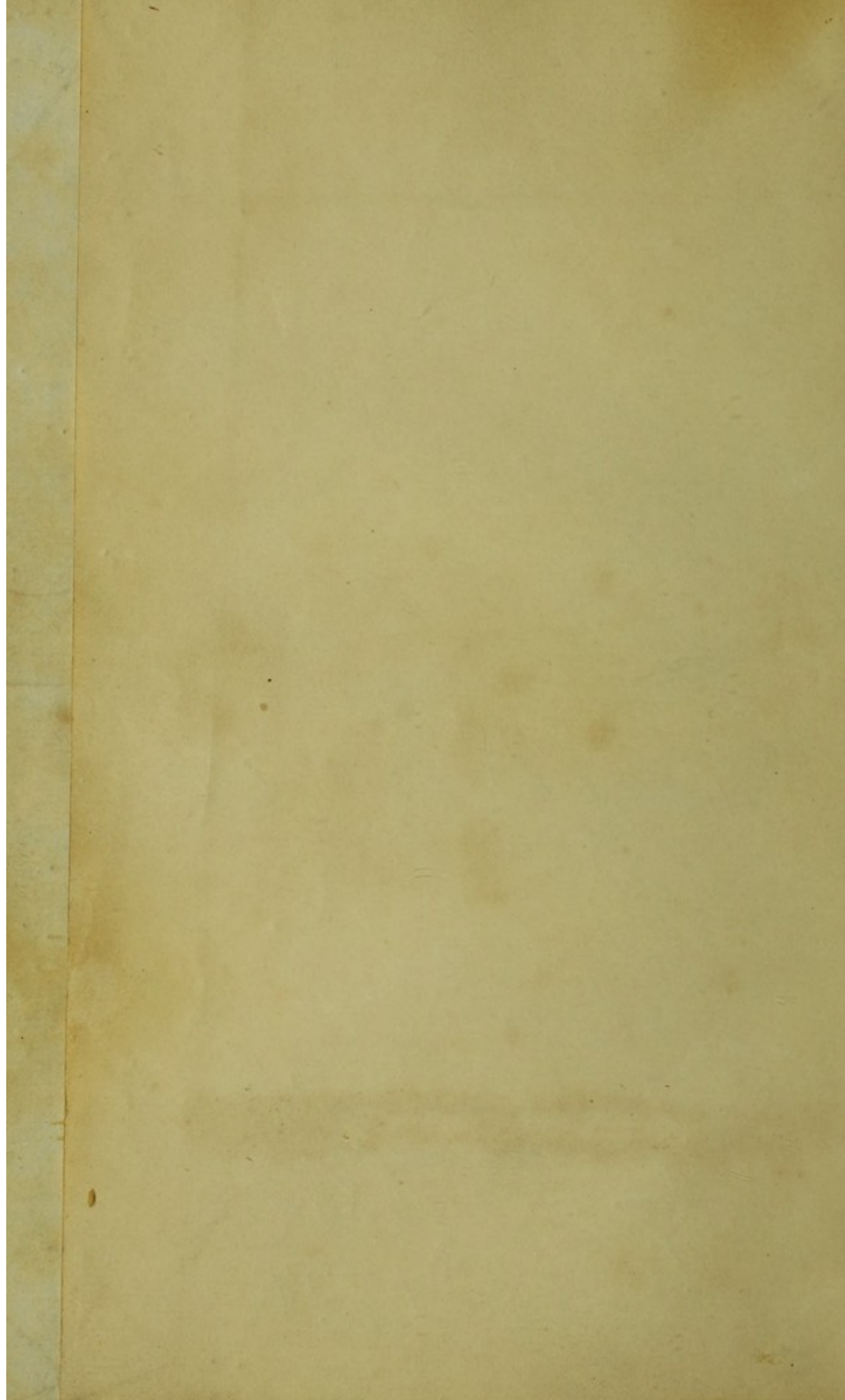
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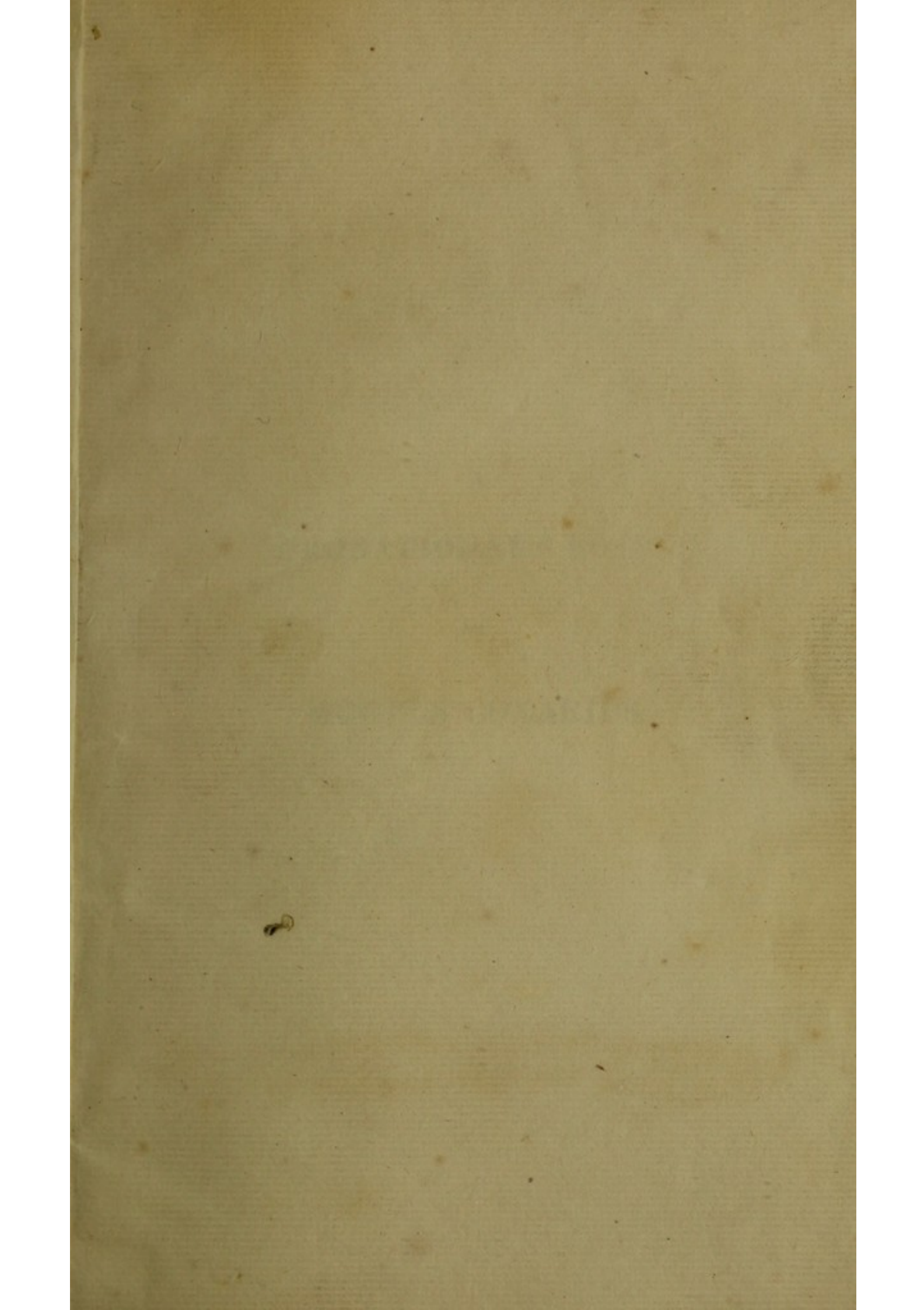
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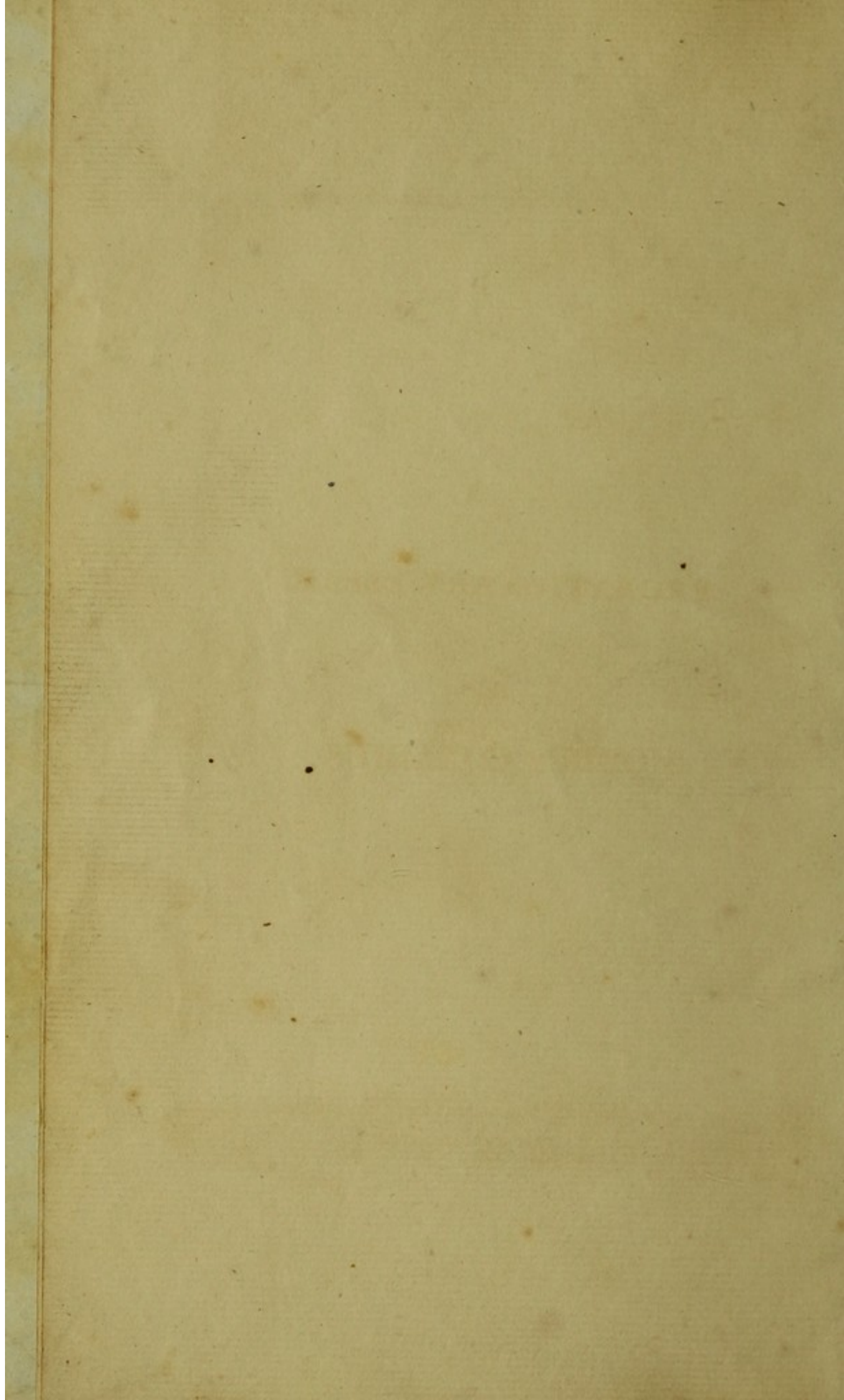
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My dear







A
PROBATIONARY ESSAY
ON
MORBUS COXARIUS.

PROBATIONARY ESSAY

ON

MORBUS COXAALGUS.

A
PROBATIONARY ESSAY
ON
MORBUS COXARIUS,

SUBMITTED,
BY THE AUTHORITY OF THE PRESIDENT AND
HIS COUNCIL,

TO THE EXAMINATION OF

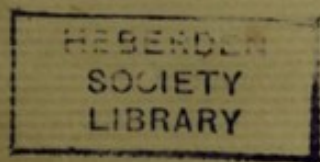
The Royal College of Surgeons
OF EDINBURGH,

WHEN CANDIDATE FOR ADMISSION INTO THEIR BODY, IN
CONFORMITY TO THEIR REGULATIONS RESPECTING
THE ADMISSION OF ORDINARY FELLOWS.

BY
WILLIAM M. BATHGATE,
LICENTIATE OF THE ROYAL COLLEGE OF SURGEONS.

EDINBURGH :
PRINTED BY
W. BURNES, JAMES' STREET.

1828.



PROBATIONARY ESSAY

ON

MORRIS COX AINER

PRESENTED

BY THE ACADEMY OF THE PRESIDENT AND
THE FACULTY

TO THE

THE ACADEMY OF THE PRESIDENT AND

OF EDINBURGH

THE ACADEMY OF THE PRESIDENT AND
THE FACULTY
THE ACADEMY OF THE PRESIDENT AND
THE FACULTY

BY

WILLIAM M. BATHGATE

LECTURER OF THE ROYAL COLLEGE OF SURGEONS

EDINBURGH:

PRINTED BY

W. BURNS, JAMES STREET.

1838.

TO

JAMES LORIMER, Esq.

THE FOLLOWING ESSAY IS INSCRIBED,

BY

HIS SON-IN-LAW,

AS A TESTIMONY OF RESPECT AND ESTEEM ;

AND ALSO, TO

JOHN CAMPBELL, M.D. F.R.S.E.

FELLOW OF THE ROYAL COLLEGE OF SURGEONS,

AND

SURGEON TO THE ROYAL INFIRMARY,

EDINBURGH,

AS A MARK OF FRIENDSHIP AND REGARD.

JAMES POTTER, JR.
THE NEW YORK AND HOLLAND

IN THE

THE COURT OF CHANCERY

IN THE CITY AND COUNTY OF NEW YORK

IN THE MATTER OF THE ESTATE OF

JOHN T. POTTER, DECEASED

AS PLAINTIFF

VS.

THE NEW YORK AND HOLLAND

AS DEFENDANT

AND

THE NEW YORK AND HOLLAND

AS PLAINTIFF

VS.

THE NEW YORK AND HOLLAND

AS DEFENDANT

AND

THE NEW YORK AND HOLLAND

AS PLAINTIFF

VS.

THE NEW YORK AND HOLLAND

A
PROBATIONARY ESSAY

ON

Morbus Coxarius.

THERE are few diseases which merit a greater share of the attention of the practical surgeon than that which forms the subject of the following essay, whether we regard the insidious nature of its attack, the obscurity attending the diagnosis, or the danger resulting to the patient, where a prompt and energetic mode of treatment has not been resorted to in that period of the complaint in which alone the interference of art can prove of much avail.

The generality of authors have concurred in referring the origin of this disease to a scrofulous diathesis, when it could not be

traced to external injury, or some evident cause ; but experience seems to prove that it is an affection by no means confined to those habits which are usually deemed strumous.

It attacks both sexes, and all ages ; yet is much more frequently met with in children under the age of fourteen years than in adults or old people.

The first symptoms generally occasion little uneasiness, and therefore are liable to be overlooked or disregarded for some time, or are perhaps referred to rheumatism, or some other cause.

A slight weakness, and limping of the affected limb, are generally the earliest indications which the patient receives of the approaching malady. Pain also, sooner or later, commences in the joint.

From the circumstance of the pain being often most severely felt in the knee-joint, it has been mistaken for, and treated as, a disease of that articulation, to the irremediable injury of the patient.

The lumbar and inguinal regions are frequently the seat of pain, which sometimes also occupies the outside of the thigh, the course of the vastus externus muscle, the knee, the outside of the leg, and even the heel.

A general degree of listlessness now affects the patient, which by degrees increases, accompanied by an aversion to motion—symptoms which, being not uncommon to young people, are often attributed to other causes. The pain, which was at first slight, and recurring at intervals, now becomes more severe and continued; and here I may remark, that the pain, however severe, in the knee-joint, is not aggravated by moving that part; while any motion of the hip-joint never fails to augment the uneasiness experienced in any of the regions mentioned above.

The limb by degrees decreases in size; the plump roundness formed by the buttocks in a state of health, gradually disappears; while at the same time the limb becomes soft and flabby to the touch.

If, along with all the symptoms now enumerated, pressure on the front of the acetabulum increases the pain, and no disease of the vertebræ, nor any recent injury of the spine, can be detected, there can be little doubt of the existence of disease in the Hip-joint.

Elongation of the limb is also a remarkable circumstance occurring in the early stage of the disease. This symptom was first taken notice of by De Haen, though it is not one exclusively characteristic of the disease. A case is mentioned by Cooper of a similar appearance, arising from a disease of the knee-joint.

This elongation, though it seems at first sight to be real, yet is only so in appearance, and arises from the altered position of the pelvis, of which the true rationale is given by Mr. Brodie, in his *Pathological Observations*, from which I shall take the liberty of quoting the following passage: "He (the patient) supports the weight of his body upon the sound limb, the hip and knee of

which are in consequence maintained in the state of extension. At the same time, the opposite limb is inclined forward, and the foot on the side of the disease is placed on the ground, considerably anterior to the other, not for the purpose of supporting the superincumbent weight, but for that of keeping the person steady, and preserving the equilibrium. Of course this cannot be done without the pelvis on the same side being depressed. The inclination of the pelvis is necessarily attended with a lateral curvature of the spine; and hence one shoulder is higher than the other, and the whole figure in some degree distorted."

Elongation of the limb is readily detected by placing the patient in a supine posture, the limbs being properly extended, and by then comparing the trochanter major, the condyles of the femur, and the malleoli of the diseased limb, with the corresponding parts of the sound member, when the increased length of the former will be sufficiently evident.

The patient is also, in this stage of the complaint, afflicted with convulsive catchings of the limb during sleep, occasioning acute agony, which is referred generally to the knee; and this symptom, by interrupting his usual repose, proves a source of much distress and exhaustion.

Apparent shortening of the limb has also been observed at this period. This symptom Mr. Brodie has satisfactorily explained in his *Pathological Observations* referred to above. "In a few cases," says he, "where the patient is in the erect position, it may be observed that the foot which belongs to the affected limb is not inclined more forward than the other; but the toes only are in contact with the ground, and the heel raised, at the same time that the hip and knee are a little bent; this answers to the patient the same purpose of enabling him to throw the weight of his body on the other foot, but it produces an inclination of the pelvis in an opposite direction. The crista of the ilium is higher than natural, and

there is an apparent shortening, instead of elongation." Some patients experience a fixed pain about the trochanter major, deeply seated, and increased on pressure, while externally no appearance of disease is observed.

Pain is also felt in the region of the groin, and the inguinal glands enlarge, probably from the vicinity of the inflamed parts to those glands. The difficulty of walking is most observable in the morning; it becomes less throughout the day, and again increases towards night. The above symptoms constitute the first stage.

The second stage, or that of suppuration, is generally ushered in by the usual symptoms accompanying the formation of purulent matter.

If the inflammation be of the chronic kind, the suppurative process may proceed so slowly as not to be indicated by the external appearance of the part; but its formation may be suspected, from the occurrence of rigors, the dull heavy feeling of the part, and the severe startings and catchings

during sleep ; which latter, are said to be certain precursors of the formation of matter. When the inflammation is acute, the parts about the joint become tense, painful, and somewhat inflamed. Symptoms of inflammatory fever prevail ; spasms of the muscles become frequent and distressing ; and great wasting of the limb is observed. The thigh is bent forward, and is incapable of contraction. The limb now becomes really shortened, in a greater or less degree, arising from an actual dislocation of the limb, and this retraction sometimes takes place before matter can be felt externally. The foot is observed in some instances in an inverted position, and in others, it becomes everted.

In most cases all the symptoms of a luxation of the thigh upwards and backwards may be observed ; that is to say, the limb is shortened, the thigh bent forwards, and the toes are turned inwards. The abscess makes its appearance externally, sometimes over the vastus externus muscle, or in the groin, and

at other times at the middle of the thigh, or near the anus. Occasionally it discharges itself by several small openings, which close up for a time, and again break out.

The matter is at first frequently of a healthy appearance, but by degrees becomes ichorous and fetid; while, in most cases, it is discharged in the form of a curdy matter, floating in a thin fluid.

It has been observed that after the formation of pus, the joint frequently communicates a feeling, as if the bone were fractured, arising from the absorption of the cartilages and ligaments of the acetabulum. The pus may form a passage for itself through the acetabulum, and be discharged by the rectum, vagina, or urinary bladder; more especially if it have been long confined, or if the external opening be small.

In a few instances, although the discharge be copious, the general health for a time suffers little; but in most cases, symptoms of hectic fever soon supervene, ultimately exhausting the patient.

When the disease has arrived at this state, ankylosis of the joint affords the only hope of cure.

Where ankylosis does take place, the discharge gradually becomes less in quantity, and the openings finally close; the limb by degrees acquires strength, and the general health improves. Little was known of the morbid anatomy of this disease until the publication of Mr. Ford's two cases.

In the least advanced of these cases the thigh bone was slightly inflamed, the capsular ligament a little thickened, and united in its natural state to the acetabulum.

The cartilage lining the cotyloid cavity was eroded in one place with a small aperture, through which a probe might be passed underneath the cartilage into the external surface of the os pubis on one side, and on the other, into the os ischii.

The other case was in a more advanced state. Mr. Fordyce, in his Treatise on Diseased Joints, says, "These cases, duly considered, suggest various reasonings, and

seem to warrant the following conclusion, namely, that a morbid state of the cartilages and bones which form the hip-joint is the real origin and efficient cause of the whole train of alarming symptoms which accompany this disease from its earliest commencement to its final termination."

Mr. Brodie also has more lately dissected several diseased hip-joints; and from his observations it appears that the disease commences with ulceration of the cartilages, more frequently of the acetabulum first, and of the femur afterwards.

De Haen contends that the affection commences in the soft parts,—a doctrine, however, confuted by dissection, which evidently shews that the cartilages and bones are first affected.

Some refer the disease to an acrid state of the synovia of the joint, and advise an opening to be made at the commencement, to give it vent.

When the malady has arrived at its last stage, the whole of the joint, as well as the

surrounding parts, are blended into one uniform mass of disease.

The os ilium, ischium, and pubis, also the head and neck of the femur, become carious ; the cartilages and ligaments of the joint are totally destroyed ; so much so that it is impossible to distinguish the different parts.

Sometimes the head and neck of the femur totally disappear ; in general, however, the os innominatum is more diseased than the femur.

Mr. Ford says, “ In every case of the hip-joint which has terminated fatally, I have remarked that the os innominatum has been affected by the caries in a much more extensive degree than the thigh bone itself.”
—*Observations on the Hip-Joint*, p. 107.

Various opinions respecting the exciting causes of this disease have been entertained by authors ; but the subject is yet involved in a considerable degree of obscurity. Some suppose that it originates in external violence applied to the joint, or in long-continued cold to the part, or system in general,

particularly when accompanied with dampness. Others believe it connected with scrofula ; and certainly a great proportion of those who have been afflicted with hip-joint disease have been of a strumous habit of body.

Mr. J. Bell, in his Principles of Surgery, maintains that the principal cause of the disease is indolent struma.

Scrofula often attacks superficial glands, without endangering life ; for the innate power of the system, and the application of appropriate remedies, may overcome the disease ; but when it attacks any important vital part, or one supplied with few blood-vessels, such as the hip-joint, the power of medicine is extremely limited.

Others, again, think that this disease is not connected with struma, from its making its appearance in manhood, and even in old age, where no symptoms of scrofula had previously existed. To this opinion, however, there is the objection, that scrofula may remain dormant in the system, while

the exciting causes are avoided, but may readily be brought into action by even a slight irritation.

The injury which the psoas and iliacus internus muscles receive in parturition, has also been stated as one of the exciting causes of this disease.

To distinguish with accuracy the disease of the hip-joint, at its early commencement, is of the utmost importance ; yet the obscurity of its symptoms renders its diagnosis extremely difficult, until the disease has made some progress.

The principal diseases with which it may be confounded, are paralysis of the limbs, caused by diseased vertebræ ; psoas abscess ; and inflammation of the joint.

Paralysis may be distinguished by its generally affecting both extremities ; by the knee not being pained ; by the absence of uneasiness on moving the joint ; and by the limb remaining of its natural length.

The long-continued sense of weakness across the loins rendering it difficult for the

patient to support himself in the erect posture, together with the absence of pain in the knee-joint, and of the other characteristic symptoms of morbus coxarius, will serve to discriminate psoas abscess from this affection.

From acute inflammation of the joint it may be easily known, by attending to the symptoms of the two diseases at the commencement. In the former complaint the pain is acute from the beginning ; while, in the latter, it is at first trifling, and gradually increases. A swelling of the buttocks also accompanies inflammation ; while, on the contrary, a wasting of these parts constantly attends the hip-joint disease.

The pathognomonic symptoms then are,—pain in the hip, causing excruciating agony on moving the joint ; severe pain in the knee, descending from the hip, along the course of the vastus externus muscle ; a flattened appearance of the hip, nearly co-existent with the first commencement of the disease ;

and finally the lengthening of the limb, followed by retraction.

The prognosis of this disease is attended with a good deal of difficulty, from our being unable to judge with precision as to what morbid alterations may have taken place in the joint.

If at first the inflammatory symptoms yield to proper treatment, or if the complaint should have arisen from external violence, and no symptoms of scrofula manifest themselves, the prognosis will in general be favourable. But if symptoms of scrofula are apparent, and the disease resists the application of appropriate remedies, much doubt must exist as to its final result.

Difference of age, it is also evident, must have a material effect on the disease,—the chance of a cure being much less in advanced life than in early youth, when the powers of the system are so much more vigorous.

In the suppurative stage, a prognosis must be formed with the utmost caution,

more particularly if general symptoms of a scrofulous habit be conjoined with the local affection, and if the constitution be much debilitated.

Copious suppuration is always attended with great danger; but if the quantity of pus is not great, and the general health and strength not much impaired, the disease will in all probability terminate in ankylosis of the limb, and the patient may gradually recover his former health and vigour. If, however, suppuration continues for a length of time, and hectic, with all its usual concomitants, supervenes, the disease will almost certainly proceed to a fatal termination.

I shall now briefly advert to some of those remedies which experience has proved to be of the greatest utility in the cure of this complaint,—premising that it is only in the first or earlier stages of the disease, that the surgeon can hope for much success in arresting the progress of the symptoms.

When symptoms of active inflammation are present, repeated bleeding near to the joint, by means of leeches, or by cupping, are proper ; and even a general bleeding from the arm, where there is much excitement of the system, may be employed with advantage. Along with these means, warm fomentations applied to the part, entire rest, conjoined with the most rigorous antiphlogistic regimen, and gentle purgatives, ought to be had recourse to.

Some authors recommend cold applications, such as the *lotio acetatis plumbi*, in preference to warm fomentations,—under the idea, that the latter are apt to induce supuration ; but it does not appear that there is much foundation for this opinion, and it is certain that the acute pain is more effectually relieved by the employment of heat, than by cold applications. These remedies are only applicable to that stage of the affection in which acute inflammatory symptoms are present ; when these do not exist, or

after they have been subdued, a different mode of practice must be resorted to, viz. the employment of caustic issues.

Of all the means used for the relief of the hip-joint disease, caustic issues are, by almost universal consent, admitted to be the most efficacious in retarding the progress of this complaint.

The most suitable place for the insertion of the issue, is the hollow just behind and below the great trochanter of the thigh-bone. After the slough has separated, a free discharge ought to be promoted from the part, by the insertion of peas, or by rubbing the sore two or three times a week with the potassa fusa, or sulphate of copper.

In some instances where the pain in the hip and knee was very severe, a seton, or issue in the groin, over the seat of the anterior crural nerve, has materially assisted in mitigating the pain.

Blisters are also of much service. They should be so large as entirely to surround

the joint, and are to be frequently repeated ; or, what is preferable, they may be kept open by means of unguentum sabinæ, or some other stimulating ointment. Should they cause strangury from absorption of the cantharides, which is frequently the case, the patient ought to drink freely of some diluent liquor.

Baron Larrey has lately had recourse to the moxa, and relates several instances of his successful treatment of the disease by means of it.

Stimulating applications have also been advised, such as the unguentum tartratis antimonii ; but without any advantage. The warm bath has been highly recommended by some, in this disease, either pure or of sea water ; and in many cases it appears to have been of advantage.

Sea-bathing may likewise be used, especially if there be any scrofulous diathesis present ; by strengthening the powers of the system in general, it may induce a healthy action in the diseased part.

Bath water was at one period esteemed a remedy of great efficacy, but has now fallen into disuse.

These are the principal remedies which have been used in the earlier stages of the disease.

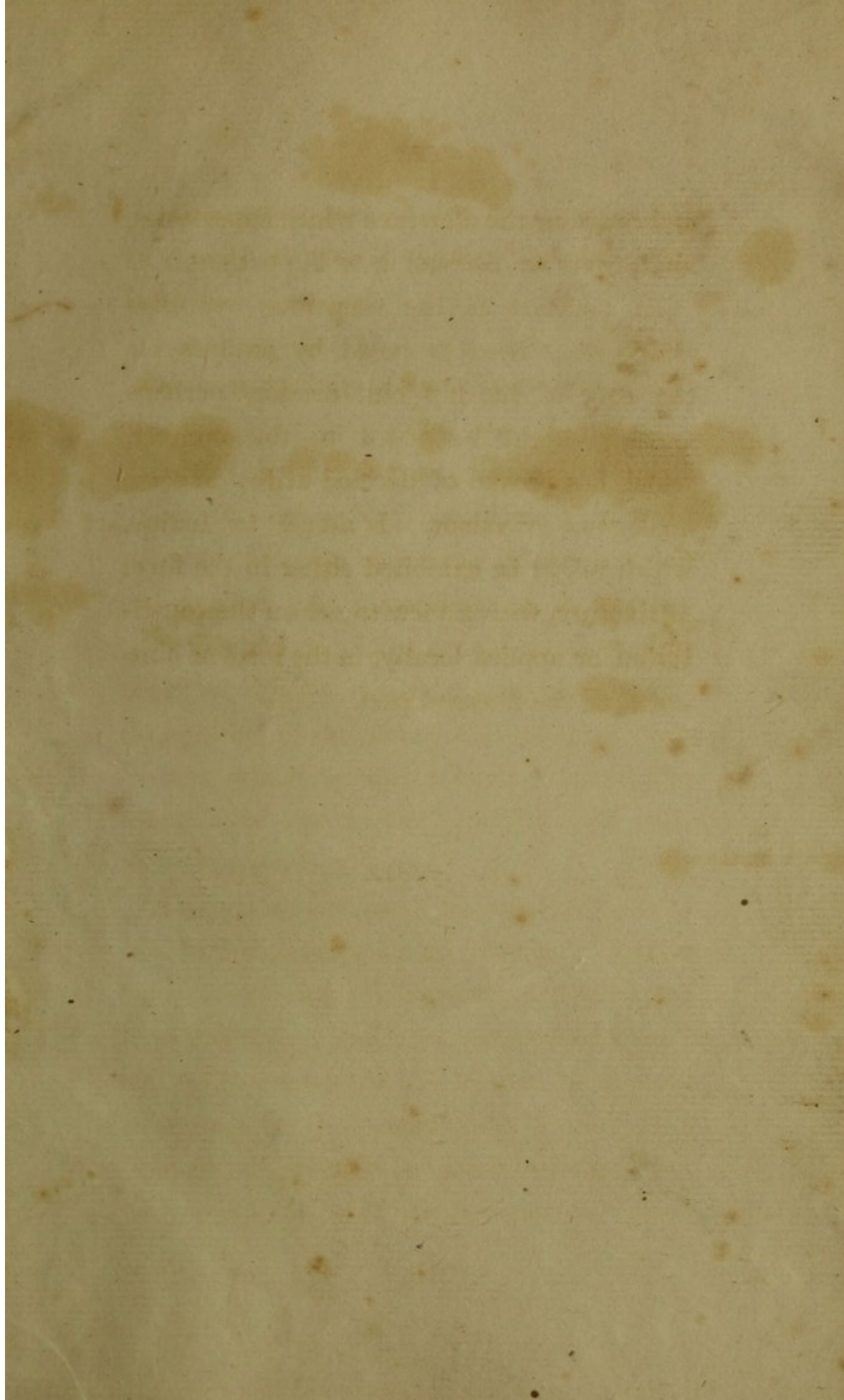
In the suppurative stage, recourse ought to be had to emollient poultices, in order to promote the progress of the abscess towards the surface. Authors differ as to whether the collection of matter should be allowed to break of itself, or whether it ought to be discharged by an incision. The latter practice is that which seems to have obtained the sanction of the majority of the most eminent surgeons.

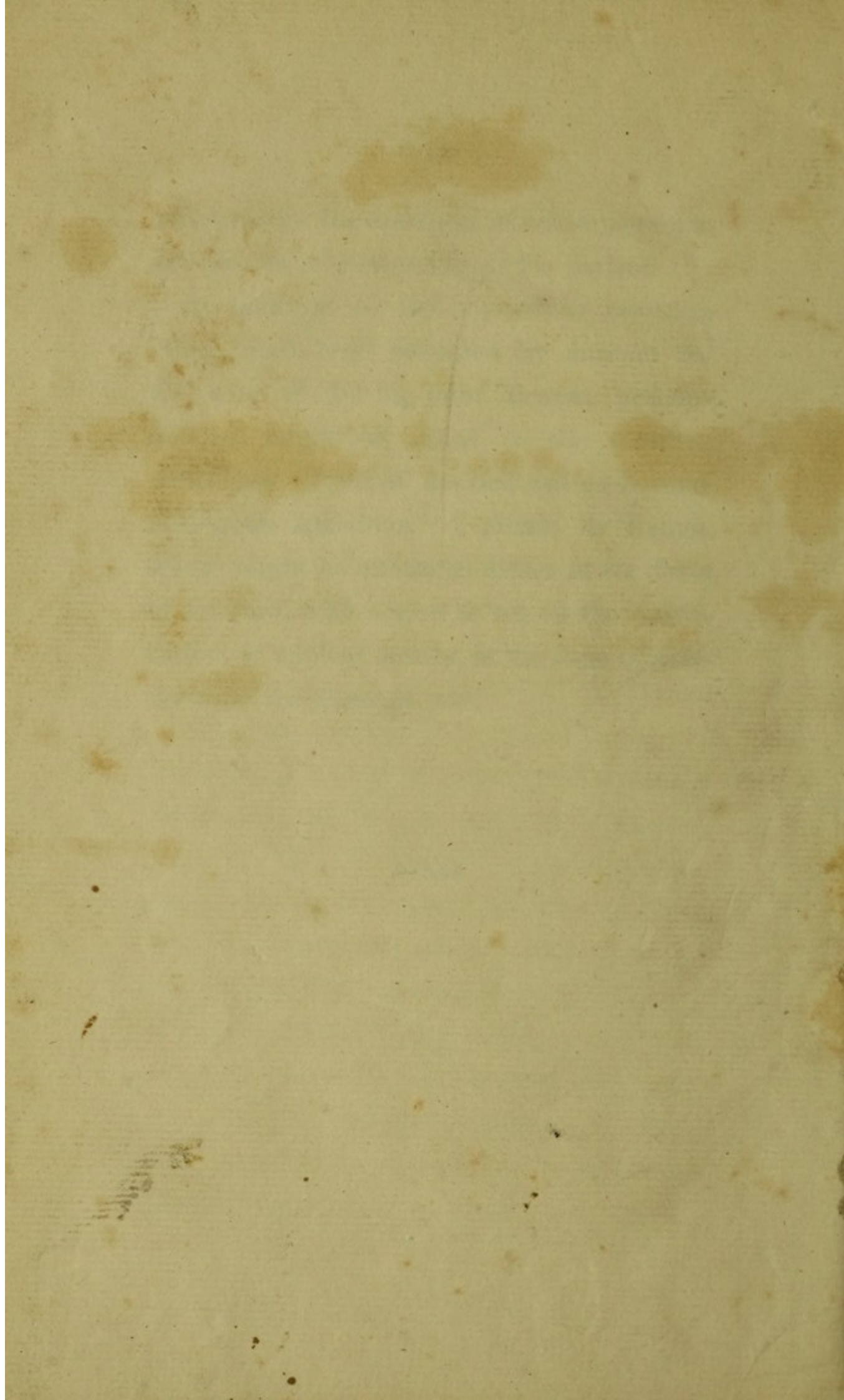
Along with the local, we must pay attention to the constitutional treatment. Hectic fever is the most dangerous symptom we have to combat, and must be treated by such means as experience has shown to be most efficacious in that complaint. Opium is a medicine which may be used in large doses with good effect, as it alleviates the pain,

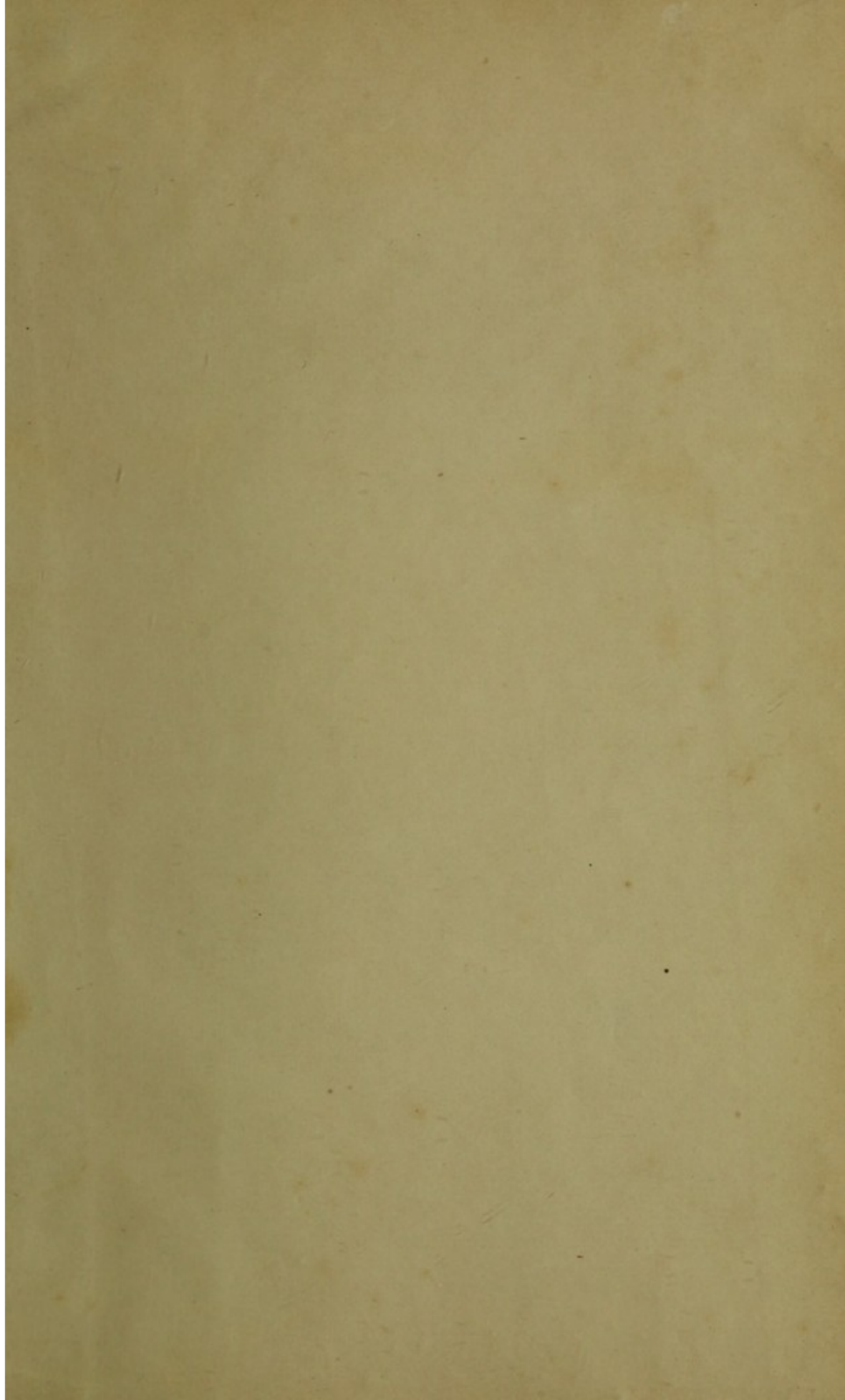
and restrains the diarrhœa which supervenes, and proves so distressing to the patient.

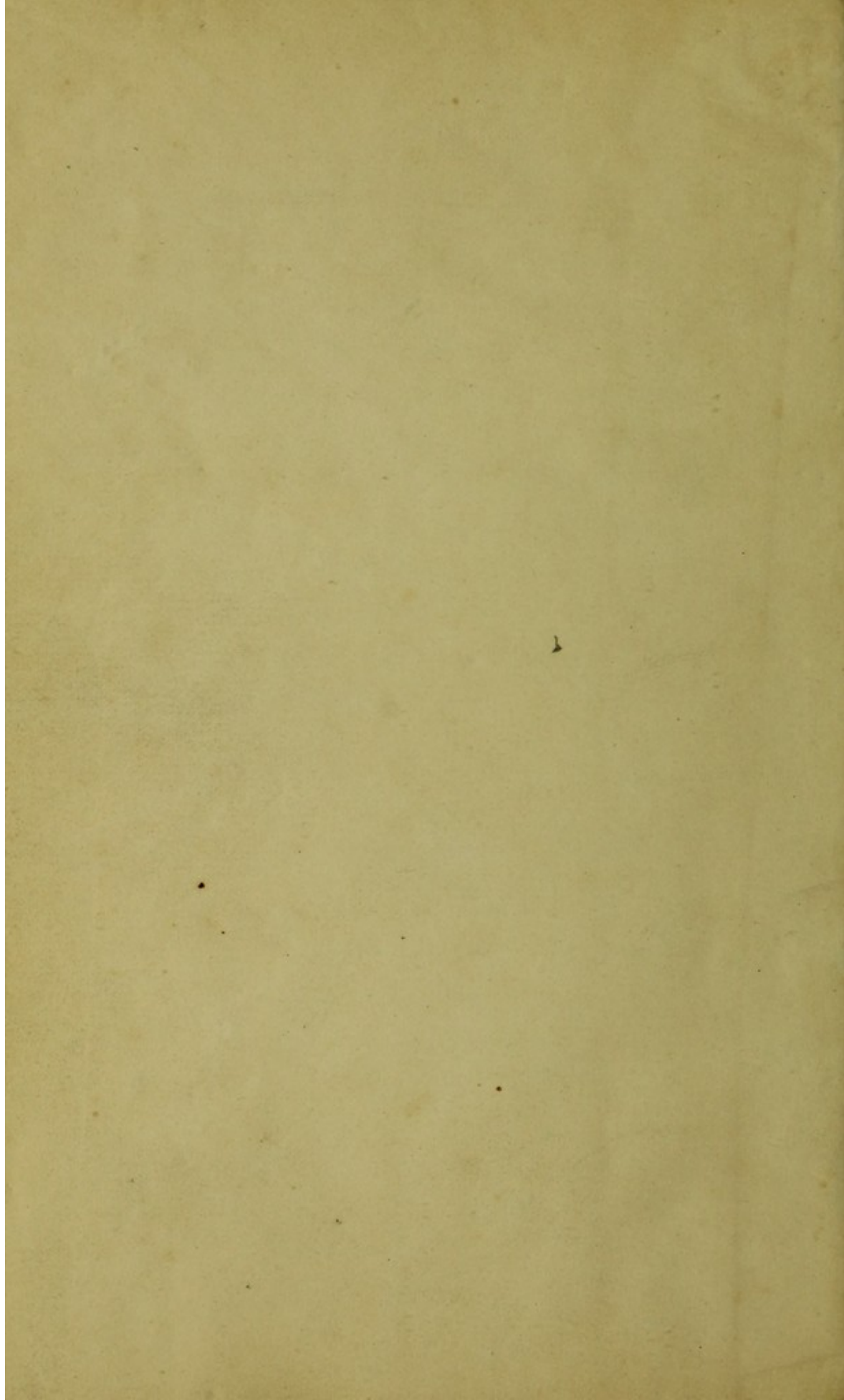
In addition to the numerous remedies which have been proposed by authors for the cure of the hip-joint disease, perhaps another might be added to the number, which has proved of decided utility in some analogous affections. I allude to Iodine, which might be exhibited either in the form of tincture, with a view to act on the constitution, or applied locally, in the form of ointment, to the diseased part.

FINIS.









As

