

Observations on the disease of the hip joint; to which are added, some remarks on white swellings of the knee, the caries of the joint of the wrist and other similar complaints; the whole illustrated by cases, and engravings taken erom [sic] the diseased parts / By Edward Ford.

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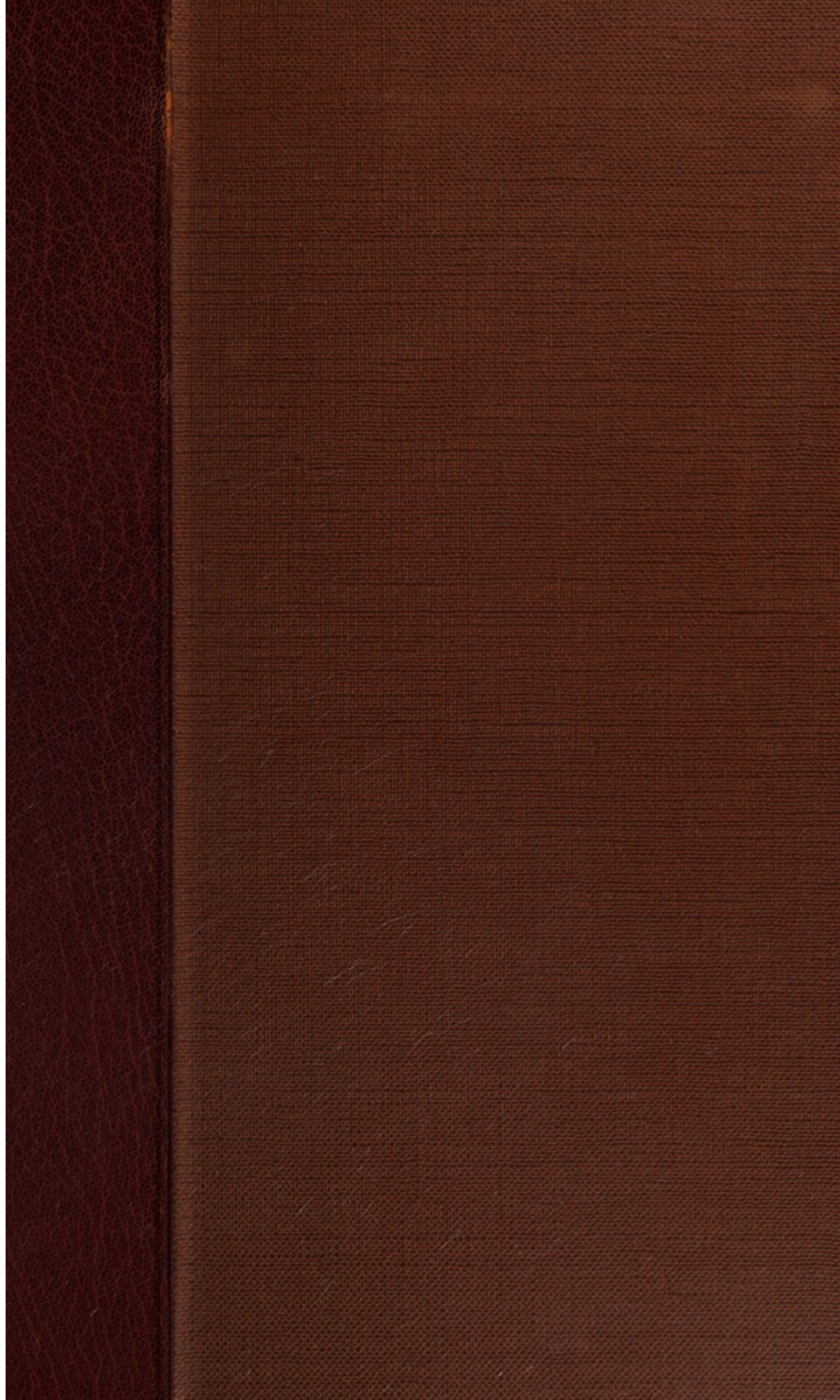
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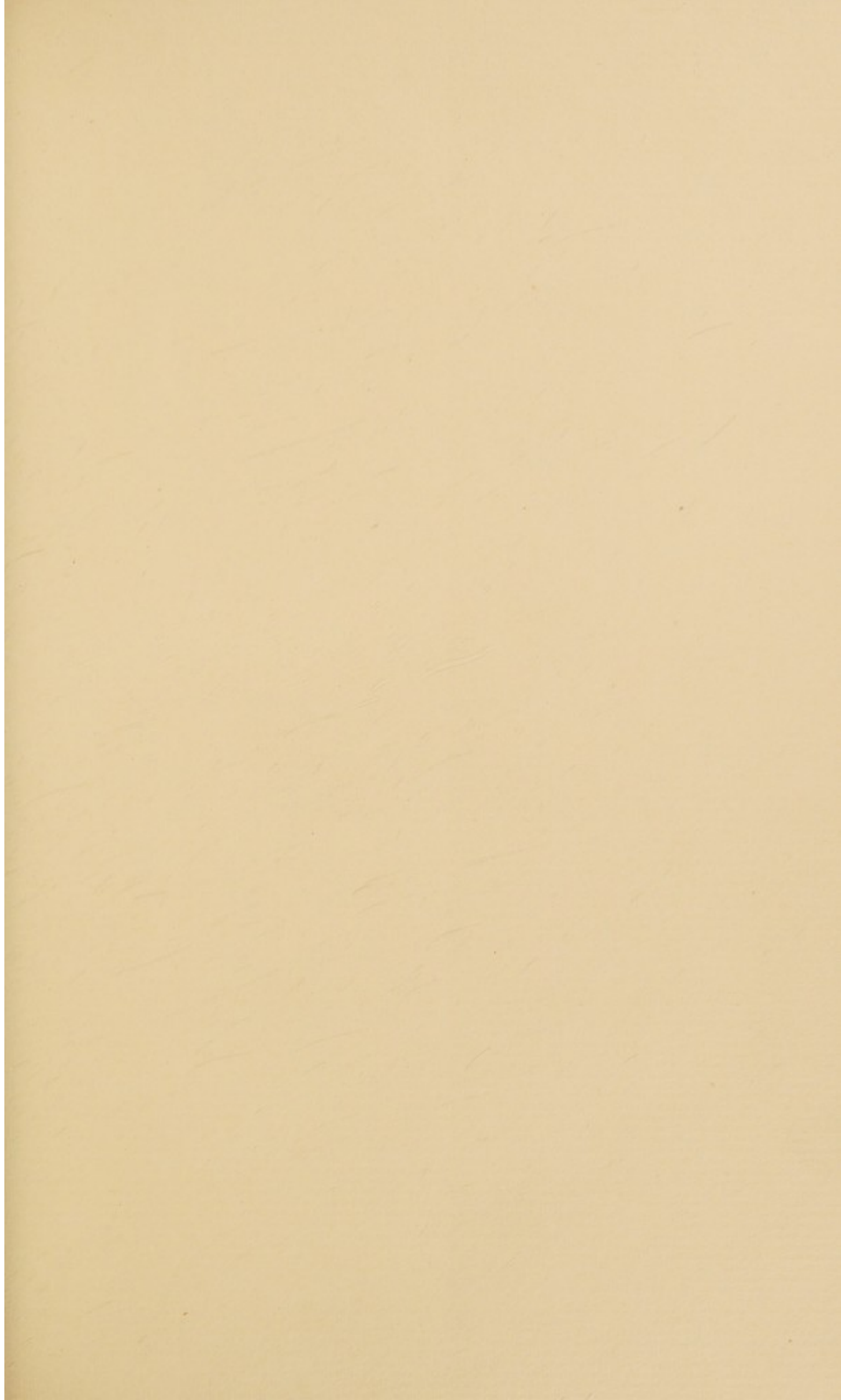
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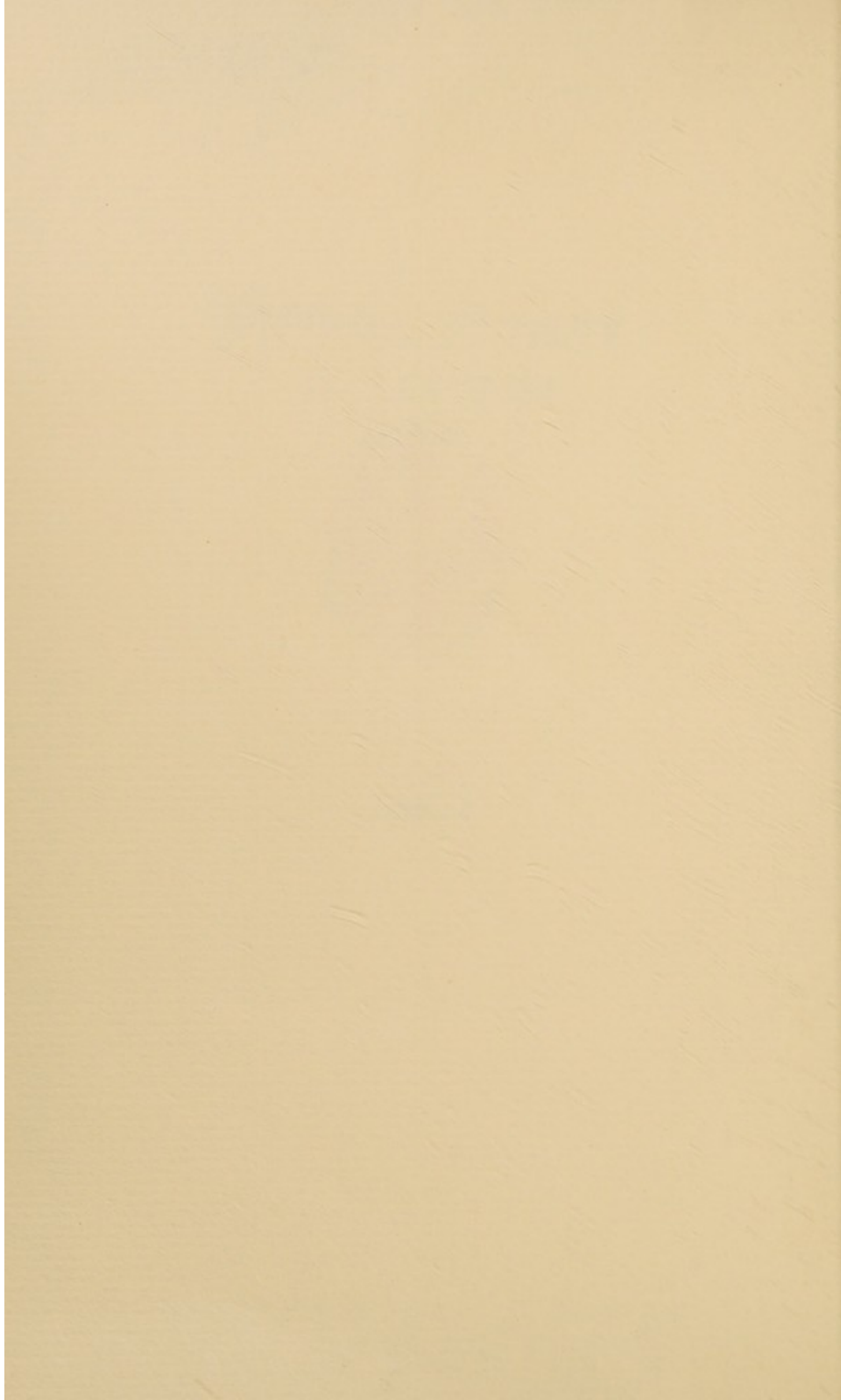


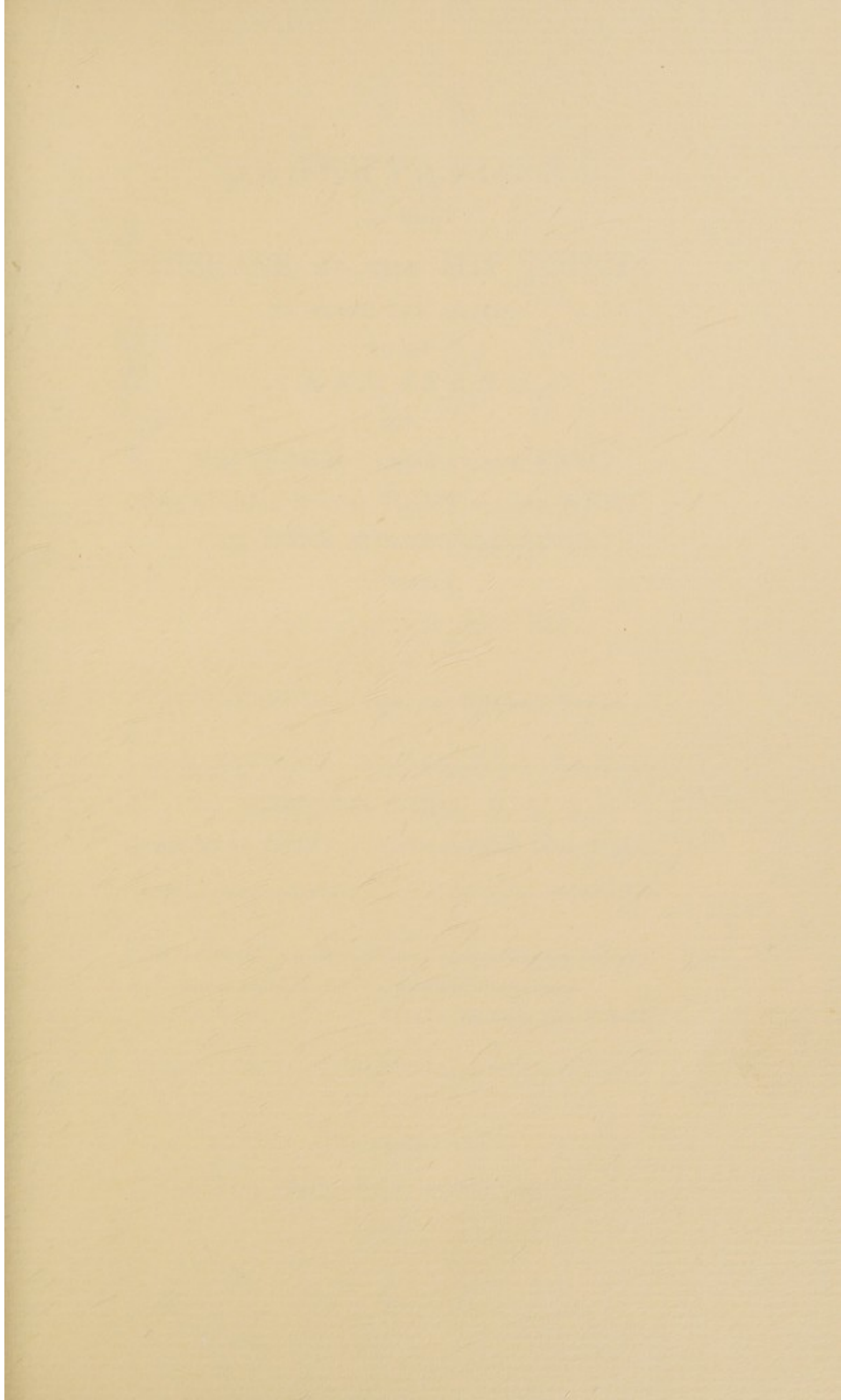
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PRESS MARK

FORD, E.









OBSERVATIONS
ON THE
DISEASE OF THE HIP JOINT;

TO WHICH ARE ADDED,

SOME

REMARKS

ON

WHITE SWELLINGS OF THE KNEE,
THE CARRIES OF THE JOINT OF THE WRIST
AND OTHER SIMILAR COMPLAINTS;

THE WHOLE

ILLUSTRATED BY CASES,

AND

ENGRAVINGS TAKEN FROM THE DISEASED PARTS.

BY EDWARD FORD, F. S. A.

SURGEON TO THE WESTMINSTER GENERAL DISPENSARY.

Harum ingens dolor esse consuevit: isque hominem sæpe debilitat,
et quosdam non dimittit.——id genus difficillime curatur.

CELSUS, DE COXARUM MORBIS.

LONDON:

PRINTED FOR C. DILLY, IN THE POULTRY.

1794

OBSERVATIONS

ON THE

DISEASE OF THE HIP JOINT;

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ENGRAVINGS TAKEN FROM THE DISSECTED PARTS.

BY EDWARD FORD, M.D.

LECTURER TO THE WITTENBERG GENERAL DISPENSARY.

These observations are intended to illustrate the nature and progress of the disease, and to point out the best mode of treatment. They are the result of a long and successful practice, and are intended to be of service to the medical profession.

LONDON:

PRINTED FOR C. BELL, IN THE COURTYARD.

1804

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TO

CHARLES COMBE, M. D. F. R. S. AND S. A.

THESE OBSERVATIONS

ARE,

WITH THE GREATEST RESPECT,

INSCRIBED

BY HIS OBEDIENT HUMBLE SERVANT,

EDWARD FORD.

CHARLES GOMBE, M.D. F.R.S. AND S.A.

HOWARD LORD

P R E F A C E.

DISEASES of joints have been known in all ages to be of the most calamitous tendency, but it is to be lamented, that very little progress has been made in the methods of relieving them: I can by no means flatter myself with the idea of having thrown any considerable light on the subject; I am sensible that this part of surgery is still capable of great improvement, but at the same time, it may be allowable for an individual, without the imputation

tion

tion of vanity, to publish the result of his experience, although he should not fully explain the nature of the disease, or lay down a certain plan of cure.

These diseases are of such importance, that they cannot too frequently be brought before the eyes of the public, nor can the attention of the faculty be too strongly impressed with the necessity of reflecting on them throughout all their stages. It is a fortunate consideration, that they are not incurable, although it must be acknowledged, that it happens too frequently, that they are not cured. The reasons for this failure should be thoroughly understood. Is it owing to the destructive nature of the malady, and the
infuf-

insufficiency of every known remedy, or may it not often be occasioned by the patient himself neglecting to apply in the first instance for proper assistance; or, is there a want of discrimination in this disease at its most important period? Whatever the causes may be, it is proper that they should be known.

As far as my experience goes, the ill success attending the treatment of these cases, has been more owing to a want of distinguishing properly the nature of the complaint in its early period, or to the neglect and indifference of the patients themselves, than to the incurable nature of the malady, or to a defect of power in the healing art.

The morbid anatomy of joints does not seem to be generally known or understood; I am inclined to believe, that a disease of the bone itself, or its investing cartilage is almost in every case the real cause of what is usually termed a white swelling of a joint; if this be true, it may be asked, whether in cases of this nature, a practice more decisive than what is usually adopted, should not be used in the first instance of its attack? Is it not absurd to wait for surgical assistance till the parts contiguous partake of the strumous disposition, till all traces of the original disease are lost in that mass of matter, which surrounds the joint, till bone, ligament

ment and cartilage are confounded together in one general destruction?

The true knowledge of a disease cannot add to its danger; if the bone be primarily affected, it should be well understood, that it is so; the hazard is to be met at its first approach, when it is most likely to be subdued; and at this time, the resources of surgery are sufficient to afford means of relief for a carious disposition of bone in any part of the body.

Too frequently however, the diseased joint comes under the inspection of the surgeon, at so late a period, that it is impossible to hold out any other language than that of its entire removal: hard indeed at this moment is the lot of
sur-

furgery, and its professors! They know little of human nature, who do not feel, that to the surgeon, it is an irksome and painful submission to his duty, to propose such an operation: he often bears the disgrace of the whole previous management of the case, being probably called in at a time, when it is impossible to do any thing more, than to exert the final effort of his skill: he rarely has an opportunity of patiently warding off, or preventing the strumous affection of a joint, he generally becomes known only by his ultimate attempt to preserve life.

The caries of the hip joint, which is the principal object of the present treatise, differs from the caries of
other

other joints, in no respect, but what arises from its local situation: it is this circumstance, which prevents it from being subjected to any important surgical operation, and the progress of the disease being thereby affected more by the uniform proceedings of nature, than by the uncertain applications of art, an opportunity presents itself of making an extensive observation on the powers of nature towards relieving a carious joint; and from thence much information may be gained, applicable to the treatment of diseased joints, in other parts of the body. It is evident that the sturmountous indisposition of the hip joint, is as formidable and dangerous an evil, as can occur to any other joint,

joint, yet from its first attack to its termination, it affords juster grounds for hope, than for despair.

If in the course of this treatise I may seem to have estimated too highly, or to have appealed too often to the works of the ancients, I shall be excused by those, who are well acquainted with the disease of the hip joint: the obvious difficulty of treating it obliges the practitioner to seek for information; and in the judgement of men versed in practice, he will not be accused of pedantry or affectation, who, in difficult cases, shall adopt the sentiments of De Haen, consult Hippocrates, and having so consulted him, pursue his opinion, unless it has been

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corrected and improved by subsequent observations.

I wish not to overvalue the writings of the ancients, but who is there, that has carefully read through the works of Mr. Pott, and has not seen the happy effect produced by a careful study of the classic authors of surgery, combined with an unremitting clinical attention to diseases and their symptoms?

To this subject, on which much might be said, the words of a most respectable surgeon are well adapted*: "Highly as all practical knowledge ought to be valued, it must be

* See the Preface to Mr. Howard's Observations on the Venereal Disease.

confessed, that a man may learn a great deal by a just comparison of his own, with the observations of others, who have been placed in similar circumstances with himself, who may perhaps have been endued with greater abilities, superiour industry, and have had much greater opportunities of information. Nor should any man carry his predilection for his own notions so far, as to imagine that the small contracted span of his life, how actively soever it may have been employed, can outweigh the productions of many centuries, and the united labours of a prodigious number of intelligent practitioners.”

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ERRATA.

Page 6, line 16, for <i>pereosteum</i> ,	read <i>periosteum</i> .
— 54, — 4, — <i>ligaments</i> ,	— <i>ligament</i> .
— 98, — 22, — <i>Inflammations, in</i>	— <i>In inflam-</i> <i>mations.</i>
— 120, — 22, — <i>are</i> ,	— <i>is.</i>
— 153, — 8, — <i>fymptoms</i> ,	— <i>symptoms.</i>
— 154, — 6, — <i>were</i> ,	— <i>was.</i>
— 174, — 16, — <i>ifchoin</i> ,	— <i>ischion.</i>
— 185, — 21, — <i>muscle</i> ,	— <i>muscles.</i>

GENERAL OBSERVATIONS

ON THE

DISEASE of the HIP JOINT.

SECTION I.

THE abscess of the hip joint is a disease attended with such various evils, incident both to the part affected, and to the constitution in general, and occurs so frequently, that it could not entirely escape the notice, of any writer who has aimed at explaining the general action of scrophulous complaints, or their more immediate effects, on particular parts of the human body. Nevertheless, it has not been made professedly, the subject of particular consideration, except by De Haen, in his treatise “*De Morbo Coxario,*” and

by Monf. Petit, in his well-known work on diseased bones.

This disease of the hip joint, in every stage of its progress, from its earliest appearance, in slight lameness, and general debility, to its final catastrophe, unequivocally manifested in the destruction of the thigh joint, and in emaciation of the whole body, is marked throughout by peculiar and characteristic symptoms; these have been, however, in a great measure, overlooked, and fewer cautions have been given, with respect to the treatment of this very common disease, than of many others of less frequency and importance.

The difficulty in observing, at least in discriminating properly, its earliest symptoms, and of counteracting or removing them, when truly discriminated, is doubtless a cause of embarrassment and uncertainty, in every attempt to make a prognostic of its event; but be this as it may, the fallaciousness of its first appearance, and the difficulty of ascertaining the degrees of its
sub-

subfequent injuries, are points granted by the generality of writers, who have treated or touched on the fubject ; and the daily experience of furgeons cannot fail to convince them, that the whole procefs of the difeafe affords great fcope for conjecture, and diverfity of judgement.

It occurs at all periods of life, but moft frequently happens to children, from their infancy to the age of fourteen. It often derives its origin from accidents apparently inconfiderable : a degree of lamenefs, fcarcely vifible, is the firft fymptom ; and this is often afcribed to indolence, or the indulgence of awkward habits ; the palenefs and languid appearance, which afterwards enfue, accompanied with a liftleffnefs and want of activity, are fymptoms often confidered as the effects of worms, or attributed to a general ricketty difpofition ; and even when local injury of the hip becomes apparent, beyond denial, to the leaft experienced obferver, it is too often regarded as a decifive proof of a fcrophulous taint, pervading the

general habit; and with a view of relieving the part affected, recourse is immediately had to remedies, which are thought most likely to counteract the tendency of the supposed scrophulous affection.

With this intention, small doses of calomel, burnt sponge, *æthiops vegetabilis*, or *terra ponderosa*, are prescribed: or with the same view of obviating the strumous tendency, remedies of a tonic kind are administered, and preparations of steel, bark, or cold bathing, are used not unfrequently. Under these, and many other different regimens, the disease of the hip joint may seem to be suspended; for, like similar symptoms of scrophula, it is influenced in its progress by a variety of circumstances, not immediately connected with mere medical treatment. Whenever a remedy for a strumous disorder is recommended, as having been, in some instances, fortunate in its exhibition, it ought to be recollected, that the season of the year, the temperature of the air, the alteration of a mode of living, and the natural stamina
of

of the patient, should be taken into consideration, and have their due weight, before the efficacy of the medicine used can be justly estimated.

The existence of scrophula, as a constitutional disease, cannot be denied; it often affects various parts of the body at the same time, oppressing, without overpowering, the vital energies; but its attacks are oftener local, and where they prove fatal, these destructive effects are produced by its deleterious quality, operating locally upon such parts of the animal economy, as are necessarily connected with its existence.

The brain, the lungs, the liver, the testes, and spermatic chord, the uterus, the ovaria, the anterior part of the bodies of the vertebræ, the joint of the hip in common with other joints, experience continually the baleful effects of a disease, whereof scrophula may be supposed to be the cause, and to which it has not unfrequently given denomination. It may be added, that there are but few parts of the human body, which do not exhibit

continual proofs of the danger of its local attacks, and of the inefficacy of general remedies. But so long as scrophula affects only the integuments, or external glands, the hazard from it is comparatively small ; the constitution resists it with great energy, and the powers of medicine are capable of being exerted with probability of success. But there is not in this complaint a specific remedy, like mercury in the venereal disease, which can, with a moral certainty, impede its progress ; if there were any such medicine known, of superiour efficacy, capable of checking the inflammation and suppuration of an indurated gland, or of preventing a thickened pericostium, and enlarged bone from becoming a confirmed caries, it would greatly supersede the necessity of having recourse to topical remedies, which are both painful and uncertain.

Scrophula is not unfrequently converted from a constitutional, into a local disease, by a variety of accidental circumstances, sometimes apparently slight, and certainly such as might
 befall

befall a constitution perfectly sound, with little, if any, ill effect: when by any untoward accident, the locality of scrophula is determined to the hip, and seated in the joint of that part, it brings in its train serious and stubborn complaints; and a probability that the disease will terminate fatally, is strongly pointed out by a long illness, generally accompanied with colliquative sweats and purgings, anasarcaous swellings in the lower limbs, emaciation in every part of the body, and frequent suppurations round the hip joint, unmanageable by any treatment, applicable to other abscesses.

When this disease terminates in death, the dissection of the part discovers a caries so extensive, as to include not only the head and neck of the thigh bone, and the cotyloid cavity, but great portions likewise of the adjoining os Ilium, Ischion, and os Pubis, with all their ligaments irreparably injured. Such indeed are the facts revealed by dissection, that there is no wonder at their having given rise and currency to an opinion, often

assumed, that the hip disease is, from its earliest origin, irremediable; and it must be confessed, that it is difficult to conceive how such an extensive caries of bone as is visible after death, could have been prevented or remedied. Nevertheless, these discouraging conclusions are not always just and well founded; for there is no doubt but that diseases, finally attended with large suppurations, which ultimately occasion great derangement, and havock in the animal machine, originate from slight causes, and admit of remedy in their beginnings.

A careful observer may discover, and destroy, the seeds of many a fatal chronic disease, before they become deep rooted and dangerous: even strumous affections of the lungs, and liver, begin with slight obstructions, and indurations in the substances of those viscera, which, from the invisibility of their nature, go on, producing their consequential ill effects; obstructions increase and multiply, till at length inflammation ensues, either excited by the original
cause,

cause, or brought into action by some adventitious circumstance: and hence succeed a train of fatal consequences, which the expedients of skill may alleviate, but are not likely to cure.

The discriminating symptoms of internal chronic diseases, are not yet delineated with such accuracy, as to instruct the generality of practitioners, how to distinguish them in their earlier stages, or how to proceed on a certain efficient practice for their prevention or cure. It ought likewise to be noticed, that although an experienced and attentive observer might very truly distinguish these latent diseases in their first beginnings, and, alarmed by the apprehensions of their ultimate ill consequences, would willingly exert his utmost ingenuity to check them, yet the patients themselves feeling from these disorders, inconveniences apparently trivial, cannot easily be prevailed upon to adhere, with steadiness, to any well-digested plan of prevention or remedy, in order to avert evils, which they imagine to be merely contingent, or,

at

at the worst, not likely to take place, but at a period considerably remote.

This happens not uncommonly in cases of scrophulous affections, tending to suppuration in the cavities of the body; but the progress of disorders, situated in the extremities, comes more immediately under the cognizance of the surgeon, and is by no means so problematical or hopeless. The parts affected by them, are always more superficial, and consequently the progression of disease is more easy to be traced than in the viscera. The joints of the upper and lower extremities, are sufficiently perspicuous in their structure, and cannot be diseased to any dangerous degree, without betraying an inaptitude for their functions; and the moment that this becomes obvious, the surgeon investigates the cause, and, where symptoms shew the remotest danger of suppuration, he instantly has recourse to those local applications, which experience has evinced to be, not only capable, in many instances, of stopping the advancement towards caries, but even

even sufficiently efficacious, to recover the limb from a diseased, to a healthy state.

The caries of the hip joint, always painful in its consequences, and sometimes fatal in its event, steals on at first so imperceptibly, and arrests the attention so little, that it is scarcely considered as a serious disease. The constitution is not, at first, materially affected by it; paleness of countenance, fits of languor and heaviness, succeeded by proportionable flows of spirits, and sudden exertions, are incidents, so common in the lives of young people, that they pass for common circumstances, and attract but little notice. They are, however, symptoms, often accompanying the first pathognomonic marks of this disease, which are a sort of limping gait, lameness scarcely discernible, and a weakness of the leg, and thigh just beginning to be apparent.

About this time, the limb, on strict examination, will be found, both in the thigh, and on the calf of the leg, to be really lessened in its circumference. A striking alter-

alteration likewise, takes place with regard to its length. It is more, or less elongated; the elongation is visible, and the degree of it ascertainable. Let the patient be placed in a horizontal position, with both his legs extended properly for a comparison with each other; the patella, with the condyles of the thigh bone, will appear in the diseased limb, manifestly lower than the same bones on the sound side. It may be still farther ascertained by an inspection, and comparison of the relative situations of the great trochanter, or the internal malleolar process of the tibia, with the corresponding parts of the sound limb. On viewing attentively the patient in an erect posture, it is clearly discernible, that there is, on the diseased side, an alteration with respect to the natural fulness and convexity of the nates, that part appearing flattened, which is usually most prominent*; and a little below, towards the

* Many of these characteristic marks of the disease are shown in plate I.

thigh,

thigh, there is a degree of swelling, different from, and strongly contrasted to, the natural appearance of the sound limb.

A pain in the knee, is another remarkable symptom, not unusual in the course of this disease, and so violent is it at times, as to disturb the repose of the patient at night, and to occasion the most agonizing screams. The knee, nevertheless, after the most minute examination, will be found in a perfect sound state, although it has often been subjected to the fruitless trouble of fomentations, plasters, and embrocations, whilst the real seat of the disease has been neglected, and the process to caries, permitted to go on with its natural rapidity, accelerated occasionally by adventitious circumstances.

It may be still farther observable, that the patient, in standing, does not support the weight of his body equally on both legs. The sound limb will appear strongly extended, bearing upon it more than its due proportion of the weight of the trunk, whilst the other projects outwards from the body,

with

with its knee bent, and the patient discovers an inclination to rest rather on his toes, than to support the weight of that side of his body, fairly on the whole surface of the foot*.

He not only becomes more unable to move the diseased limb, with the same facility as the sound one, but the lameness increases on him so much, that he is under the necessity of grasping the affected thigh with his hand, in order to give it a greater progressive power.

There are also other symptoms, in the early state of this disease, which ought not to be passed over in silence, as every circumstance, which may be thought characteristic, deserves notice, and serious consideration. In a morning, the patients walk stiff, and with evident difficulty; the difficulty becomes less apparent in the course of the day, but weariness comes on, in an unusual degree, towards the evening, and pain ensuing, they repair to rest at an early

* See plate I.

hour.

hour. In quick exertions, and in running especially, they are apt to fall; and though often averse to motion, they have at times great liveliness, and a prompt disposition to exercise; in their recumbent posture, in bed, the thigh affected is ordinarily bent forward: and every attempt to alter that position is attended with great pain, which is particularly increased by every degree of exertion or violence, employed to stretch out the limb to its full length. The parts surrounding the joint, on pressure, evidently betray no great degree of painful sensation, but, in general, some tenderness, where it is most likely to suffer by compression, particularly behind the great trochanter, where there is not much cellular membrane, or muscle to cover the joint. They feel, moreover, a tenderness in the groin, where the lymphatic glands are frequently found to be a little enlarged.

The disease for some time, at least, indicates itself by the symptoms above mentioned; it is not, however, uniformly painful,

ful, but variably so, being influenced by the efficiency of the means, administered to counteract the process of a scrophulous carries in the joint, or by the power of the constitution withstanding its attacks. It frequently happens, that the unfavourable appearances alter, and are suspended for a considerable time, infomuch, as to be seemingly removed; but if they return, it is with additional violence. The lameness becomes more obvious, the pain more sensible, the emaciation of the limb more visible, and the general prevalence, and inroads of the disease on the constitution, manifest themselves strongly, by slow hectic fever, and great prostration of strength.—

At length it happens, that the limb, which was before elongated, shortens; and whenever this circumstance takes place, which may easily be ascertained by an actual mensuration, it announces the probability of an ensuing external suppuration; and the great difficulty of preventing it, calls for the most unremitting exertions of the surgeon.

The

The rapid approach to suppuration is marked by an aggravation of all the local symptoms; a greater degree of tenderness and irritability in the parts round the joint, are now manifest to the touch; the enlargement of the external parts becomes more visible, particularly, on the upper and exterior parts of the thigh, over the vastus externus muscle, where the matter usually gathers, and projects. During this period, the thigh becomes more shortened, contracts in a bent position, upward to the groin, and is less capable of motion, the leg wastes more apparently, the foot can scarcely be put to the ground, and finally, the patient no longer able to depend on the limb affected, supports his body on crutches, and on his sound leg, whilst the diseased one hangs a burthenfome, and painful appendage to the trunk, with its foot extended, and perhaps œdematous. This miserable state of the disease continues for a longer or shorter space of time, till the abscess bursting, discharges either a thick matter, or else a thin,

ferous fluid, intermixed with substances, resembling curds and whey.

At this time, another alteration often takes place, which generally marks the most distressing period of this formidable complaint. The patient grows languid, and hectic, loses his appetite, becomes subject to colliquative purgings, sweats profusely at nights, and sinks apparently, under the pressure of his complicated maladies.

If the disease does not now terminate fatally, as it often does at this critical period, these distressful symptoms continue for a long time: If the patient happily struggles through them all, and at length recovers, it is after a tedious confinement to his bed, with a distorted hip, and an emaciated limb, which has either formed an insecure connection with the os innominatum, or become ankylosed in the hip joint*.

It deserves however, a particular observation, that an external suppuration is not al-

* See plates II. IV. and V.

ways a necessary, and unavoidable consequence of the shortening of the thigh bone, and of the caries of the hip joint. Instances occur, not unfrequently, in which patients undergo the whole process of the early symptoms of this disease, to the elongation, and shortening of the limb, and even an ankylosis in the joint, without any external suppuration.

At times too, it happens, that a suppuration is formed, that the abscess bursts, and that a shortening of the limb takes place, when yet no fever ensues, nor any very dangerous symptoms supervene*. These very fortunate circumstances are however, rare, compared with the great frequency of cases, in which numerous evils usually result from the caries of the joint, and its external suppuration.

In the investigation of this, and every other disease of equally dangerous consequences, it is advantageous, and indeed requisite, to acquire the truest and most accurate

* See cases XIII. XIV.

possible notions, of the injurious alteration in the internal parts, which constitutes the cause of external morbid appearance. The pathology of this disease, is certainly most wanting in its earliest stage; for at its conclusion, opportunities too frequently occur, for the minutest examination of the nature and effects of this malady, which is uniformly found on inspection, where it terminates fatally, to go on in its operation, to the ultimate destruction of almost all the bones, ligaments, and cartilages connected with the hip joint*.

The disease here treated of, is not fatal in its first attacks, nor productive for some time, of very great, or insupportable inconveniences; it is in most instances, considerably advanced in its dangerous progress, before application is made to the surgeon, who has but seldom, a fair occasion to attend to it, in its first beginning and earliest stage; and whenever he has it in his power to trace its

* See plate VI.

primary operation, and ill effects by dissection, it can only happen, when the patient falls accidentally a victim to some other disease. Rarely as this is likely to take place in the practice of an individual, it has however occurred to me, more than once, and warrants me to affirm, that a considerable caries of bone, in the cotyloid cavity, or in the head of the thigh bone, may exist, before any external symptom could have ascertained such a circumstance.

The following is the case of a patient, who suffered from the disease of the hip joint, for several months labouring under the primary symptoms characteristic of this complaint, but finally destroyed by a violent fever, not apparently connected with his local complaint.

Thomas Welsh, a boy ten years of age, of a fair complexion, brown hair, born of healthy parents, both living at this time, received a blow on his groin, about fourteen months before his death, from a cricket ball, thrown with considerable force. His mo-

ther, soon after he received the blow, thought that he halted a little, but his lameness was not very apparent. It was not however, till eight months after the accident happened, that it was judged necessary to have recourse to a surgeon for advice. The lameness at this period was very perceptible, and the pain in the groin and thigh, shooting backwards toward the nates, was so acute, that, although naturally a cheerful child, he could not contain himself from frequent screaming.

He had now become uneasy, restless, and was continually getting up from his chair, particularly at his meals, which he preferred taking in an erect posture, resting on the sound leg, or frequently shifting about, to vary his mode of standing. His health in other respects did not appear to be much affected, his appetite was good, and his sleep was not much interrupted, till a short time before his death, when he began to cough, and to shew symptoms of weakness.

At the time he was brought to the Westminster

minster General Dispensary for assistance, the pain had become more violent in the groin, and in the thigh; a very considerable degree of lameness was manifest, and the inguinal lymphatic glands were swelled: a caustic was then applied to the hip, a little behind the great trochanter; soon after this application, he grew so much better that he indulged himself in the usual pastime of boys, jumping with a rope, and standing upon his head; his cough was much abated, and the pain in his hip was entirely gone. The limb notwithstanding, still appeared to be wasted, and was certainly elongated.

Soon after this time he was seized with a fever, attended with petechiæ, which put an end to his life in the course of a few days. I obtained leave to examine the limb, and found the elongation still very evident, and demonstrable in the dead body. There was in the cavity of the hip joint, a small quantity, about a tea-spoonful of matter; the head of the thigh bone was a little inflamed, the capsular ligament rather thick-

ened, the ligamentum teres united in its natural way with the acetabulum : the cartilage lining the cotyloid cavity eroded in one place*, with a small aperture, through which a probe might be passed, underneath the cartilage, into the internal surface of the os pubis, on one side, and on the other, into the os ischii ; the opposite or external part of the os innominatum shewing more appearance of disease, than the cotyloid cavity*.

Some time before, I had examined by dissection, another disease of the hip joint, which had not proceeded to an external suppuration ; but not having preserved the morbid parts, I can only say, that the disease was in this subject farther advanced, that the limb was beginning to shorten, and to be contracted forward, that the patient, who was a boy at school, being thrown over a form, was taken home in great pain, and died in a few days after, with fever and convulsions.

* See plate III. fig. I. and II.

On examination of the joint after death, there was no appearance of inflammation, no tension, or swelling externally, but the cotyloid cavity was thoroughly carious, the cartilages eroded, and the head, and part of the neck of the thigh bone crumbled away.

The foregoing 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 appearance to its ultimate termination.

The carious state of the bones in question, is not therefore the effect, but the cause of the formation of matter, and this caries is not to be attributed to a disordered state of the synovia, corroding the head of the bone and the cotyloid cavity, nor to the acrimony of any matter collected there, and supposed to produce this ill effect. There is a necessity for ascertaining distinctions of this nature,

nature, in order to found the proper indication of a mode of cure: for, if this disease were to be ascribed to the causes above mentioned, either an acrimonious state of synovia, or an existence of matter of a corrosive quality in the joint, a practice very different, from what is now generally pursued, would certainly be preferable.

Mr. Freke, in his "Essay on the art of healing," p. 218, conceiving the caries of bone, in the disease here treated of, to be the effect of an acrimonious synovia, recommends an early opening into the joint, as the best method of preventing the future pernicious consequences. He compares the use of synovia to "Good olive oil for locks," but, adds he, "If oil of vitriol be used instead of it, the effect need not to be told."

It must be admitted, that, if Mr. Freke's theory of this disease were unquestionable, the early opening, he recommends, would be the most eligible practice, as tending to discharge, in the quickest way possible, the
 noxious

noxious fluid. It is however certain, that such a practice is found by experience to be injurious ; for the opening of abscesses of joints, whether it be made by caustic, incision, or seton, has not the supposed tendency to prevent, but on the contrary, is known to increase the disposition to caries, and must consequently, promote and accelerate every bad symptom, resulting, sooner or later, from the strumous indisposition of the affected part.

It may still be thought, and urged against what has been advanced, that it contravenes a common opinion, that the cause of this disease is not primarily to be looked for in the joint itself, that it may as well be supposed, to originate in the more external parts, in the involucra of the joint, in the cellular membrane, in the periosteum of the bones, in the muscles, or in the lymphatic glands. It may be said too, that such a caries of bone, or such a disposition to caries, as is stated in the case, above mentioned, cannot well be conceived to exist in so
early

early a period of this complaint, and yet continue so long latent, to all external appearance inactive, or by its operation producing no very dangerous ill effects.

This objection is the more specious and plausible, as it is admitted, that the subjects of this disorder, nevertheless enjoy a mediocrity of general health, and, for no inconsiderable space of time, are but little distressed by its local inconveniences : whereas in no very dissimilar cases, a disease in bones of less magnitude, and in parts of less importance to the animal œconomy, discovers itself frequently with much greater rapidity, by hectic symptoms, and other very conspicuous ill effects. It may be added to all this, that such a caries of bone in a part, so liable to friction as the hip joint, would most probably cause inflammation, and bring on suppuration, much sooner than it usually takes place, according to the foregoing account of the disease.

Such analogical reasonings without doubt may be speciously urged, and may be fairly answered

answered by arguments, deduced likewise from analogy. But, what is to be gained by opposing suppositions to facts? The latter remain invariably the same, however we may vary in our opinions about them. The facts, with regard to the morbid anatomy of this disease in its earlier stages, can only be proved by the dissections of subjects, who happen to die during its first attack.

In considering however, the objections before mentioned, it may be observed, that in vital parts of the human system, even in the brain*, strumous indurations are known to subsist, without certain indication, or immediate discovery of their dangerous tendency: their mischievous effects are often slow and gradual, and the fatal symptoms do not appear till some time after, according to the natural progress of the disease, or its exacerbation from some external or internal cause, which excites an inflammatory diathesis in the part.

* See London Medical Journal, Vol. II. p. 56.

In like manner, a strumous induration, and enlargement of the liver, or of the spleen often subsists, and is known as a chronic disease, by its effects on the animal œconomy, for a long time, before it produces inflammation, or suppuration in the substance of those viscera, an accumulation of water in the cavity of the abdomen, or any of those symptoms, which are the final, and fatal consequences of the original disease.

Even in the lungs, that part of the human body, most subject to strumous affections, and necessarily in continual motion, a disposition to pulmonary phthisis, is well known to exist, long before its fatal termination, in tubercles and suppuration.

But to institute an analogical reasoning, much more nearly allied to the disease in question, is it not well known, that in the disease of the incurvated spine, so accurately described by Mr. Pott, a disposition to caries, and even a destruction of parts must necessarily have taken place, before the caries, is indicated, or ascertained, by that angular

gular incurvation, which is the marked effect of a loss of substance, in the anterior part of the body of the vertebræ? Every joint of the upper, and lower extremities, occasionally exhibits a strumous indisposition of its cartilages or bones, and this may exist for a very considerable time, with more or less local inflammation, before an external suppuration takes place.

The disease of the hip joint, produces a weakness of the lower limb, necessary to be distinguished from a paralytic affection, to which it is liable in common with other parts of the body; and it is likewise requisite to discriminate it from that partial debility, often incident to the lower limb, in the complaint, which is well known by the name of psoas abscess.

As the disease of the hip joint gradually advances towards suppuration, in the course of its natural progress, the local injury of the joint becomes evident from external appearances; but in the beginning, and earlier periods of the calamity, its diagnostic signs, although

although highly necessary to be fixed, are not always obvious.

The pain in the knee, the flattened appearance of the nates, the elongation of the limb, the uneasiness felt in moving the joint, clearly discriminate the hip disease from a paralytic affection. The same symptoms serve in some measure, to distinguish it from the abscess known in many cases, to originate from a caries of the lower dorsal vertebræ or those of the loins, near the origin of the psoas major.

In the psoas abscess, the matter secreted in consequence of caries, is prevented from making its way outward on the back, by the thickness of the bones, and the strong compages of the muscles on the loins, and is still more strongly restrained from making its way forward, by the peritoneum, viscera, and abdominal muscles; it therefore falls down on the psoas muscle, and passing under Poupart's ligament, sometimes pushes outward in the groin; but more generally, pursuing the course of that muscle, forms
an

an abscess near its insertion in the inside of the thigh.

In the progress of this abscess, there are some external symptoms, not unlike those of the hip disease. Of these, it may be proper to mention here, that the thigh is generally bent forward, which gives a flattened appearance to the nates on the side affected; this symptom, in the disease of the hip joint, seems to arise from the inability, which the patient feels of supporting the trunk on the infirm joint; whereas, in the psoas abscess, the similar circumstance of the thigh, being bent forward and upward, so as visibly, to give the appearance of depression to the glutæi muscles, may probably be owing to the irritated condition, to which the psoas muscle may be subjected, from the weak and morbid state of that part of the bone, into which its origin is inserted*.

In

* I have considered the psoas abscess, as originating from disease in the anterior part of the lower dorsal, or

In discriminating between the abscess of the hip joint, and that proceeding from diseased vertebræ, it must also be remarked, that in the latter disease, the matter insinuating itself between the muscles of the back, does at times make its way outward on the loins, and even on the nates, and often bursts nearly in the same place, where the abscess of the hip joint frequently appears. Nevertheless the surgeon, who attends carefully to the antecedent symptoms, will not find it difficult to discover the real seat of the disease, which is of the utmost importance to ascertain with precision, in the first instance, in order to institute a proper mode of cure: although in the latter

the lumbar vertebræ; although this may not be universally the case, I am authorized by the opinion of the most respectable writers to say that it frequently is so, and from my own experience I must affirm that whenever I have had an opportunity of inspecting after death, the morbid state of the parts connected with this disease, I have uniformly found a very considerable caries of the bones above mentioned.

stages

stages of these different abscesses, the true knowledge of their locality, is not equally essential, as the treatment of both necessarily becomes the same, or very similar.

The elongation and wasting of the limb, the pain in the knee, the uneasiness felt in moving the head of the thigh bone in its socket, are all prominent and characteristic features of the hip disease: if yet at times, there may be appearances in the psoas abscess, which bear some resemblance to those symptoms, it must certainly be admitted, that they are by no means so strongly marked, as they are in the abscess of the hip joint: moreover, the psoas abscess has generally one leading symptom peculiar to itself, namely, a sensation of weakness in the loins, near the origin of the psoas muscle, attended with a degree of tenderness, discoverable by the touch, if the parts undergo a minute examination.

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leading symptom peculiar to itself, namely,
a sensation of weakness in the joint, near the
origin of the psoas muscle, attended with a
degree of tenderness, discoverable by the
touch, if the patient undergo a minute ex-

amination.



SECT. II.

Observations on the Modes of Treatment usually employed for the Relief or Cure of the Disease of the Hip Joint.

HAVING, in the preceding section, premised some general observations on the disease of the hip joint, on the ways of ascertaining its existence, and the means of distinguishing it from the most similar complaints, I may now suppose a case of this disease; let it be stated then, as in its early stage, not yet so far advanced, as to be productive of any manifest indications of external suppuration; I shall only suppose its actual existence, and locality ascertained, or at least strongly marked by pathognomonic symptoms.

The first object of immediate inquiry, must necessarily be, what is the best method to be taken, to relieve the inconveniences

it has already occasioned, and to prevent the future calamities, likely to arise from the disease left to its natural course.

In the consideration of a remedy, or mode of treatment, adequate to remove a complaint, which is either a disposition to caries, or a real caries, actually existing in the bones of the hip joint ; it would be useless to enumerate the great diversity, and contrariety of fomentations, plasters, and embrocations, which have been tried, repeated, and recommended by regulars, and irregulars in the practice of physic, and surgery.

Internal medicines have not been more successful; hemlock and burnt sponge, preparations of mercury and antimony, have been all employed to remedy this disease, without the record of a single fortunate event: nor have tonic remedies been used with greater advantage: the cold bath, so far as my experience goes, has been uniformly detrimental, without the shadow of an exception, and the peruvian bark does
not

not seem to possess any powerful influence over this complaint, although it may be found serviceable in particular cases, where colliquative sweats, and symptoms of great weakness, seem to arise from the general debility of the habit, during the natural progress of the malady.

Bathing in sea water, both warm and cold, has been, from the earliest records of medicine, an usual practice in scrophulous complaints. The elder Pliny* mentions it as a remedy used in his time for diseased bones, as well as other disorders. In modern practice, it is notorious, that for almost every disease, which can be attributed to a strumous taint, patients resort to places situated on the sea coast, either for the advantage of bathing in the natural marine element, or for using it as a warm bath, and in some cases, to experience the alteration, likely to result from an exchange of the pol-

* Histor. Natural. Lib. 30. cap. 6.

luted atmosphere of a large city, for that of an open country near the sea.

The benefits, derived from this plan in many scrophulous cases, are so very obvious, that they leave no room for scepticism to doubt of their reality, and seem to warrant the propriety of trying the same method of cure, in almost all cases evidently of the same nature. It is nevertheless certain, that sea bathing is beneficial only in particular cases, and by no means, to be considered as a specific remedy in every disease of a scrophulous tendency. In maladies of this description, which principally affect the lungs and other viscera, its efficacy is very problematical, and even breathing in an air near the sea, has been accounted by physicians, to be prejudicial in pulmonary complaints*.

It is not uncommon, to find many cases of the abscess of the hip joint, complicated with a delicate and irritable state of the lungs,

* See Dr. Carmichael Smyth, on consumptions.

which

which creates an insuperable objection to cold sea bathing, but, as this circumstance does not always occur in the strumous indispotion of the bones of the hip joint, a remedy, known as sea bathing is, to be powerfully adapted to counteract scrophulous tendency, deserves a fair trial, and promises to be useful in the very early stages of the disease. It is not unlikely, but that in such an early period, sea air, and sea bathing might check the strumous taint, and otherwise invigorate the constitution, so far, that the part more immediately affected, might resume a healthy tone.

But in my own experience, I have always found, that sea bathing is not to be depended upon, when the disease is considerably advanced, that is, when violent pain, distortion of the hip, contraction and shortening of the limb take place, and manifestly mark a prevalent caries, and an impending danger of external suppuration. In such cases, sea bathing is frequently followed,
by

by some of the most dangerous symptoms of this disease.

There can be little doubt, but that every degree of motion, produced in distempered bones, where the cartilages are known to be abraded, must be highly hazardous. Now it is almost impossible, to have recourse to the remedy of sea bathing, without irritating the parts by unavoidable motion, and can there be any thing more likely to happen, than that the friction of unsound, or injured bones will create mischief, out of all proportion, overbalancing any good, which can reasonably be expected, from the invigorating quality of sea bathing?

Warm bathing, in a natural or artificial marine bath, is not liable to all the objections against bathing in the open sea.

This is a remedy, which appears also from Pliny, to have had the suffrage, and have stood the test of antiquity; and it has been revived, and adopted by modern surgeons, who continually experience the inefficacy

ficacy of the medicines, recommended in scrophulous complaints ; but certainly, there are not yet on record, a sufficient number of successful instances of its usefulness, to justify such a decided preference of warm sea bathing, as to exclude the consideration, or supersede the use, of topical applications.

Dr. Charlton, in his treatise on the Bath waters, has given a short account of this disease, and has published a few cases, with a view of ascertaining the utility of warm bathing in this complaint. These cases are much in favour of warm bathing, for which he is an advocate, and his account of the symptoms of the disease, is so evidently copied from nature, that it would be an injustice, not to transcribe the whole.

Without giving much credit to the mineral impregnation of the Bath waters, as materially useful in this complaint, I had conceived that the benefit, which Dr. Charlton's patients received, might have been just as well derived, merely from an immersion in

in common warm water. Accordingly, I recommended warm bathing, in common water, in several cases of the early stage of the disease of the hip joint, and I generally found that my patients were relieved from some of the most painful symptoms, but that the relief was not permanent. Nevertheless, I still am of opinion, that the warm bath ought not to be altogether rejected; it does not much interfere with the use of topical remedies, more especially, that of bleeding by leeches; and it might at all times be adopted with considerable advantage, previous to the application of blisters, or of the caustic.

Dr. Charlton, after reciting two cases of the disease in the hip joint, cured in the Bath Hospital, says, that “ patients are
 “ frequently sent to Bath, whose complaint,
 “ in the description given of their cases,
 “ is said to be the sciatica, or hip gout.
 “ But as the symptoms of their disease are
 “ not confined to the idea, which this term
 “ conveys, I shall here enumerate them.”

“ If

“ If you inquire of these patients, where
 “ their pain is situated? Some will point to
 “ the groin; some, to the great trochanter
 “ of the thigh bone; and others to the
 “ junction of the os innominatum with the
 “ os sacrum. Temporary pains are also
 “ often spoke of in the knee, the shin, and
 “ the ankle of the diseased limb. Pain in
 “ the acetabulum of the os innominatum, is
 “ frequently never mentioned, and many of
 “ these patients can bear to have the head
 “ of the thigh bone, moved round in its
 “ socket without the least uneasiness. The
 “ diseased limb is sometimes shorter than
 “ the sound one; but it is much more fre-
 “ quently longer; if the buttocks be exa-
 “ mined, that of the diseased side, will be
 “ found lower than that of the well side. I
 “ have seen several instances, where the ob-
 “ tuse process of the os innominatum, has
 “ been an inch and a half lower than its
 “ natural situation.”

“ This disorder is sometimes brought on
 “ by colds, which have been caught by sit-
 “ ting

“ ting on the damp ground. Sometimes it
 “ is the consequence of external injuries ; as
 “ falls, leaping down from high places, &c.
 “ And very often no assignable reason can
 “ be given for it. It happens indifferently
 “ to persons of all ages and constitutions.
 “ I could never discover, after the most care-
 “ ful inquiry, that those of scrophulous ha-
 “ bits, were more liable to its attacks than
 “ others, who had ever been free from glan-
 “ dular obstructions.”

“ Its approaches are generally made by
 “ slow and almost imperceptible degrees. A
 “ kind of weariness, and inaptitude to mo-
 “ tion, is at first perceived in the limb ;
 “ which, in children, has frequently been
 “ taken for some trick they had got in
 “ walking, till the subsequent pains have
 “ at length, given but too convincing a
 “ proof to the contrary. The miserable pa-
 “ tient often long languishes under this cruel
 “ disease. His pain grows more continual
 “ and more violent. Inflammation arises,
 “ matter is formed, a hectic succeeds, and
 “ he

“ he dies tabid. Or, if the abscess breaks,
 “ or is opened, the flux of matter is usually
 “ more than his strength can support, and
 “ he sinks under the discharge.”

“ Dr. Oliver justly remarks, that, when
 “ the case is recent, and the patient young,
 “ our waters frequently effect a cure. To
 “ which I must add, that, when the dis-
 “ ease has been of long standing, they sel-
 “ dom do much service, and if the parts
 “ are much inflamed, but particularly if
 “ matter is formed, the use of them is
 “ highly injurious.”

“ Our usual method of treating such cases
 “ is as follows: we do every thing we can
 “ to prevent inflammation, or if it exists,
 “ to remove it. We depend more on the
 “ external, than on the internal use of the
 “ waters. And such patients are usually
 “ restrained from drinking them, till the
 “ disease begins to give way; and even then
 “ they are prescribed in small quantity, and
 “ are sometimes softened with milk, or cool-
 “ ed with spirit of nitre. We frequently
 “ purge

“ purge such patients, and with advantage.
 “ Some of them require, and are benefited
 “ by mercurial physic. Bleeding is not
 “ omitted, cupping of the part is exceed-
 “ ingly serviceable, and emetics are often
 “ very useful. All these several evacuations
 “ are repeated during a course of bathing,
 “ as circumstances demand.”

“ When the patient bears bathing well,
 “ that is, if his pain is not increased by it,
 “ and more particularly if it abates his pain,
 “ we reasonably entertain hopes of his re-
 “ covery. But bathing, though it should
 “ considerably lessen the symptoms of the
 “ disease, yet it is not always able to per-
 “ fect its cure. In this case, we have re-
 “ course to the pump, and the success an-
 “ swers our wishes. This application, how-
 “ ever, must be made with great caution ;
 “ and should immediately be desisted from,
 “ if the pain is increased by it. Under the
 “ circumstances of the patients being reliev-
 “ ed, though not cured by bathing, and yet
 “ unable to bear the pump, I have known
 “ him

“ him receive the greatest advantages from
 “ emetics, and the application of lime ca-
 “ taplafms, fometimes of blifters, to the
 “ difeafed parts.”

“ When bathing makes fuch patients fe-
 “ verifh, and increafes their pains, no be-
 “ nefit is to be expected from it ; particu-
 “ larly, if after carefully repeated trials,
 “ thefe effects are constantly obferved. And
 “ if they are fent to us in the laft ftages of
 “ the difeafe, when matter is formed in the
 “ part (which too frequently happens) we
 “ are obliged to return them to their homes,
 “ as foon as poffible.”

Topical bleedings, blifters, fetons, and
 iffues, come next under confideration, as
 means, which have a general tendency to
 retard the progrefs, and counteract the ope-
 ration of a ftumous affection of the hip
 joint, in its early ftate.

Bleeding with leeches has long been found
 by experience, a remedy of great efficacy,
 in checking inflammations of external parts,
 and confequently, is well calculated to prevent

the formation of an abscess. It has in modern practice been used with great freedom, and some success, in tumours of a scirrhus tendency, and in deep-seated strumous disorders. Doubtless, whatever has a well-known and powerful influence, in retarding external inflammations, may naturally be supposed, not to be altogether inert, when applied to those parts, which are less superficial.

It is known however, that in this, and many other scrophulous diseases, the inflammatory diathesis is indolent during the first attack, and is not discoverable by the usual symptoms of acute pain, and fever. On the contrary, the patient frequently appears to be in a low, enervated state, with a quick small pulse and a variety of symptoms, indicating the propriety of adopting a tonic, rather than an antiphlogistic plan.

It happens also, not unfrequently, that surgical assistance is not solicited on its earliest necessity; the disease, being apt in the first instance, to be mistaken for rheumatism or sciatica in adults, and equally
liable,

liable, at that early period, to be imputed in younger subjects, to indolence, to worms in the intestines, or to accidental contusions of the muscular parts.

From much experience of the good effects of repeated applications of leeches in stur-mous affections of the knee, and of other joints, I conceive, that such a mode of bleeding would be very useful in the beginning of the disease of the hip joint: I even think, it might be used with great advantage, in a more advanced state of the disorder, previous to, or in conjunction with other applications, when the great and principal object is, to prevent an external sup-puration.

But although bleeding by leeches, or by scarifications, may be often very useful, and always safe, yet, it can hardly be thought capable of effecting universally, a complete alteration for the better, in a bone, which is already carious, or has at least a manifest strong tendency to become so.

The topical application of blisters, is re-

commended from general, and successful practice, in diseases nearly allied to this of the hip joint. Inflammations in the cavity of the abdomen, and of the thorax, arising either from sudden causes, or from strumous affections of the viscera, are known to be relieved by blisters applied over the diseased parts. Their application is undoubtedly serviceable, on the first appearances of morbid disposition in bones, whether it arises from strumous taint, or accidental injuries.

Caries, or a disposition to caries, manifested by a thickened periosteum, and apparent enlargement of bone, in the clavicle, ulna, radius, tibia, or any of the bones, which lie near the surface of the body, in the joint of the wrist, that of the elbow, and even of the knee, is generally relieved, and often cured by the repeated applications of blisters to the affected parts.

In enlargement of the joints of the fingers, proceeding from a strumous constitution, and in that enlargement caused by external accidents, the beneficial efficacy of blisters,

blifters, repeatedly applied round the affected part, is incontestable. Under this application, the enlargement obviously subsides, the crepitation between the bones, the consequence of abrasion of the cartilages ceases to be felt when the blister begins to operate, the use of the joint is effectually recovered, and ankylosis prevented.

De Haen in his treatise "De Morbo Coxario," affirms it, as a certainty from his own experience, and that of Boerhaave, that many patients have been relieved in this disease, by the repeated application of blisters; he regrets, however, that every prognostic is doubtful, the utmost uncertainty arising, as he thinks, from the great variety of causes, which may give birth to the disease, and from the diversity of the parts, which may be affected.

The real nature of the evil, he says, is absolutely unknown, any farther than as it is manifested by its effects. As to the seat of the disease, he considers it, as existing in the

integuments, in the cellular membrane, the membranous fascia, the muscles, the involucre of the ischiadic nerve, the periosteum of the bone, the capsular ligaments, the cartilages, the bone itself, the glandula innominata, the ligamentum teres, or finally, in all the above mentioned parts together.

In this description, the causes and the consequences of the complaint, are perhaps inaccurately blended together. If the disease originated in the integuments, or in the superficial parts, there is the greatest reason to believe that topical bleedings, and blisters, would accomplish an effectual cure. But to judge in this case, from analogical reasonings drawn from diseases, where the effects of external treatment, are more obvious to our senses, there appear to be many, and great objections against our adopting the opinion of De Haen on the hip disease, as perfectly just and satisfactory.

There is an insuperable difficulty in our conceiving, on the one hand, that matter
formed

formed either in, or near the cellular membrane, should force its way inward through strong ligaments and tendons, to destroy the joint, instead of pushing outward, as it is well known to do invariably, in all other parts, where strong ligamentous, or bony compages do not intervene to resist, and frustrate its external appearance: whereas, on the other hand, there is the greatest facility in explaining satisfactorily, the suppuration of the external parts with the other symptoms, which accompany the hip disease, by admitting of this principle, that a disease of the bone itself, or of its investing cartilage is the primary cause of the suppuration. If this principle be rejected, those important symptoms of the disease must still remain, unexplained, or inexplicable. But it may be recollected here, that this assumed principle has been considered as a fact, apparently well founded, and ascertained by intuition in the case, before related.

The application of blisters to the hip, is no doubt very serviceable in the earlier stages

of its disease; it has even been known to produce cures, and will generally, in that state of the complaint, suspend the disposition to caries in the bone. Nevertheless, it is still a point of great doubtfulness, whether this application alone may be securely relied upon, for such an effectual cure of the disease, as will to a certainty prevent its return.

The propriety, and efficacy of such an application in cases of diseased bones, which lie near the surface of the body, cannot be controverted, but it must be confessed at the same time, that an application of this nature may not be equally beneficial, when the diseased bone, or the morbid affection, is more remote from the surface, and consequently not so immediately subjected to the action, and power of blisters.

It may be alledged, indeed, that the amplitude of the surface irritated, and the copiousness of the discharge proceeding from an extensive sore, may well be supposed to compensate in some measure, for the distance

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tance of the blister from the affected part. After allowing to this argument its full force, and admitting, that even in many unpromising cases, blistering may be very beneficial, especially, when favoured by the constitutions, and habits of the patients, still it is conceived, that this application cannot be considered as fully adequate to the entire removal of such deep-seated diseases, as lameness, from caries of the cotyloid cavity of the hip joint, or incurvation of the spine, from caries of the vertebræ.

Various stimulating plasters, and cataplasms have been recommended by many medical writers, for the relief of this complaint, and the practice is evidently founded on the same rational principles, as the application of blisters with similar intentions. For my own part, I have not had much personal experience of their efficacy, nor do I know, that they have lately been much employed in this country, in the treatment of this disease. They are however recommended on good authorities, and merit more extensive trial.

De Haen very candidly relates the case of a patient labouring under the hip disease, whom he acknowledges to have teased with a repetition of blisters. The patient left him by no means cured, but was afterwards relieved by an old woman, who applied a plaster over the whole thigh. It was a composition of gum mastich powdered, and formed with rectified spirits of wine, into the consistence of a plaster. Availing himself of this hint, De Haen afterwards used, in several instances of this disease, a composition of quick lime, mixed with honey.

Ætius, Paulus Ægineta, and Schenckius, recommend stimulating plasters for the same purpose. Certainly, it is not unreasonable to suppose, that a permanent irritation kept over the diseased parts, may often be more efficacious than a blister, the irritation of which is only temporary, with a purulent discharge very variable.

Of all the known applications of this nature, the most powerful seems to be the following

lowing plaster, recommended by Dr. Swedi-
diar, Lond. Med. Journ. Vol. I. p. 198.

℞ Gumm. Ammoniac. ℥j.
Aceti scillitic. q. s. ut fiat Emplastrum,
Quo pars affecta tegatur.

I have found this plaster, which, by sprinkling it with powdered squills, is easily rendered more irritating than is here prescribed, useful as a topical remedy, in some scrophulous affections ; but in the hip disease, it has not hitherto answered my expectations.

A practice has been lately revived, and is at present very generally pursued for the relief of the complaint under consideration, which consists, chiefly in making a large issue by caustic, near the part affected. It is adopted on the recommendation, and is warranted by the experience, of very celebrated medical writers, and has in its favour, the frequent good effects, which issues made in this manner, are known to produce in diseases similar to this of the hip joint.

The principal object in the earliest stages
of

of this complaint, is to remedy a caries, or to stop that disposition to caries, which, if not checked during its advancement, has a necessary tendency, to destroy not only the joint, and the limb, but likewise the life of the patient.

Even in the subsequent periods of this disease, when the caries so visibly manifests its existence, that there can be no farther doubt about its having taken place, when the thigh bone is shortened, and the most unfavourable symptoms shew, that the affected parts are hastening rapidly to complete destruction, it is of the utmost consequence to the patient, to adopt a practice, which is likely to favour the quiet formation of ankylosis, and prevent the disturbance and obstruction, to which that process would unavoidably be exposed, by an external suppuration.

That these ends may be answered, and the happiest effects in this way, produced by means of an artificial drain, or an irritation excited near the diseased bone, is obvious

vious from the general action of blisters on bones in a morbid state, and may be farther credited from the numerous observations, which may be collected from the writings of the most able practitioners, since the time of Hippocrates, to that of Mr. Pott, who seems to have ascertained it beyond the possibility of doubt, in his treatise on the incurvation of the spine from caries.

Inquiries after remedies, from the writers of antiquity, are not generally rewarded with many valuable acquisitions. The descriptions, which they give of diseases, are acknowledged to be, for the most part, faithful and accurate, but there is not always equal good reason to praise the felicity of their methods of cure; nor can the moderns boast with truth of being so happy, as to have surpassed them very far, in curing this disease of the hip joint.

In the modern treatment, the most rational, and beneficial plans, are derived from the antients, and are principally to be ascribed to their skill, and ingenuity. The
 prac-

practice of sea bathing, both warm and cold, of topical bleeding, of stimulating the surface by blisters, or other irritating applications, and of making topical issues by caustic, bear honourable testimony to the accurate and clinical observations of the great fathers of physic and surgery, of whom it is difficult, if not impossible, to think, without an immediate recollection of Hippocrates, from whose wonderful penetration and sagacity, hardly any thing which affects the health of man, seems to have entirely escaped.

To the vast stores of medical knowledge which he possessed, his comprehensive mind appears to have been in the habitual exercise of adding, from every circumstance of a pathological nature, which came under his extensive and acute observation. It would be vain to alledge, that he has not been surpassed in anatomical knowledge; but all his writings, and especially his aphorisms, abound with striking evidence of a superiour and accurate knowledge of the various diseases, to which the human frame is liable.

At

At the conclusion of the sixth section of that admirable work, there are two passages relative to the hip disease, which are worthy of a more full and critical account, than can be given in a work of this nature, or properly inserted as notes below, I must therefore refer to an appendix on this subject, containing a few remarks, with which I was favoured by a literary friend. With respect however, to what is there more copiously treated of, I think I may venture to affirm, that the doctrine of Hippocrates, if the aphorisms alluded to, are liberally translated, is very clear, and comprehensible to those, who are conversant with this disease, and may amount to neither more, nor less, than what follows.

Hippocratis Aphor. Sect. VI. Aph. 59.

“ In the progress of the hip disease, the standing out of the hip bone or its external projection, and the falling in of the nates behind, are prognostics of suppuration.”

“ Ibid. Aph. 60. “ When, in this complaint the hip bone stands out, the
“ limb

“ limb wastes, and the patient must necessarily halt, unless he is cauterized.”

If the preceding interpretation of these aphorisms, should be thought too loose and general, and should not appear warranted by the true meaning of the text; I shall not pretend to defend it, by assuming a critical knowledge of Greek literature, but at least I am authorized to say, that it is supported by the appearances of the disease. My principal reason for quoting these passages, is to shew, that Hippocrates treated this complaint, in a mode similar to what is now practised, and that he was sensible of the great use of issues made by caustic, towards effecting its cure.

Galen, in his commentary on these aphorisms, maintains the meaning of Hippocrates to be, that an external wound should be made by cautery, to prevent the subsequent evils of the malady. There are besides, two other passages in the writings of Hippocrates, which, if taken in comparison with the preceding aphorisms, seem to imply, that a
cautery,

cautery, in his opinion, ought to be used early, in the disease of the hip joint, to prevent suppuration. The same passages create a strong suspicion, that Hippocrates, in his own mind, ascribed a want of success in the cases of Hecafon, and Cyrenius, two patients afflicted with the hip disease, to the omission of the cautery, in an early period of the distemper*.

Celsus prescribes the use of the cautery, in the treatment of the hip disease, and directs the mode of performing the operation. He orders the hip joint to be cauterized in three or four places, and advises the ulcers not to be healed up, but to be kept open, until the complaint is removed †.

Paulus Ægineta likewise ‡, and Ætius §, recommend the cautery, in this com-

* Hippocratis lib. Epidem. V. pag. 341. Edit. Charterii.

Ejusdem lib. De internis Affectionibus, tom. 7, pag. 677. Edit. Charterii.

† Celsi Opera. lib. IV. cap. 22.

‡ Pauli Æginetæ Opera, lib. VI. cap. 76.

§ Ætii Basil. Edit. p. 640.

plaint, as do also various authors of more modern date ; Prosper Alpinus *, and Ambrose Parey †, ought to be particularly mentioned as advocates for this practice, and Schenckius ‡ tells of a physician, who acquired reputation from curing it by caustic, but he does not mention his mode of applying it, and says only, that the wound should be kept open for six months.

In still more modern practice, we find the illustrious Boerhaave, and De Haen prescribing topical issues for the hip disease: the former, with great confidence recommends this mode of treatment, as will appear from the following quotation: “ Sumatur cauterium valde ignitum cum annulo, a quo annulo profunditas inustionis determinatur, et hoc applicatur coxendici, hac ratione omnes hi Ægri curantur, et puto, quod si hæc methodus semper in

* P. Alpinus, De Medicina Ægyptiorum, lib. III. cap. 12.

† Amb. Parey. lib. XVII. cap. 23.

‡ Schenckii Observat. lib. V. pag. 673.

“ hoc

“ hoc casu effct adhibita, ex centum ho-
 “ minibus, qui nunc claudicant non unus
 “ claudicaret*.”

Cheston, in his pathological inquiries, mentions caustics with approbation, and recommends their use for the white swelling in the knee, a disease similar to this of the hip joint.

Kirkland likewise, relates an instance of a complete cure of a disease of the knee joint, under the direction of a farrier, who effected it by the means of a caustic, which penetrated no deeper than the skin.

To recur to the veterinary art, it may be recollected that Bracken, a well-known writer, and an attentive observer of facts, remarks, that he had seen instances of the good effects of cauterising, in the diseases of joints of the human body. He particularly takes notice of a cure of this kind, performed by a travelling empiric, in the mode recommended by the antiënts, of laying on cauf-

* Praxis medicæ, pars V. pag. 380

tics in so great a number, that he found ten at one time on the patient: the application however was useful, the event being finally successful.

But it is not on the basis of authorities, however numerous, that the reputation of a remedy can be permanently established; experience must justify its preference: the inefficacy of other means, has long induced me to give the caustic, an extensive trial in diseases of joints; the result of my experiments confirms me in a favourable opinion of it, and I am well persuaded, that many objects of this disease have recovered the entire use of their limb, by having had a large issue on the hip, who would otherwise have been exposed to the risk of a tedious illness, almost inevitably terminating in death, or ankylosis of the joint.

In the course of the present observations, it is not intended to state particularly the manner, in which blisters or issues operate, but merely to consider, if they are, in any way of acting, capable of producing beneficial

ficial effects. It has been suggested, that the application of issues to the back, for the disease of the carious spine, does not in reality contribute to the cure, but that it is produced eventually, by nature alone.

It has likewise been doubted, whether the continued purulent drain from the issue, has any good effect, as it is said, that all the advantage, derived from this practice, proceeds from the simple irritation of the caustic ; if objections of this kind, are of force, against its use in the carious incurvated spine, they will be found equally valid, against using this application in the disease of the hip joint.

To the first objection, namely, that an issue, well made, and managed with judgment, does not avail in the cure of the diseased spine, it may be answered, that numerous cases are on record, which shew, that patients, with incurvated spine from caries, have recovered under such treatment ; but this is not altogether conclusive, as there are undoubtedly, instances of its failure.

If the mode of cure is attempted to be explained, it may be more satisfactory to say, that an external suppuration, when it takes place in the carious hip joint, or in the carious incurvated spine, almost invariably debilitates the habit, lengthens out the disease, and thereby prevents the powers of the constitution, from effecting that union in the diseased parts, known by the name of ankylosis. Daily experience shews, that blisters have a power of checking the progress to suppuration in parts affected, near the surface of the body, and that issues, made by caustic, have a similar influence in complaints more deeply seated; and, if they have that power, they must necessarily assist in the greatest object, requisite to the cure of this disease, which is the prevention of an external wound, communicating with diseased bone; for few patients die of this complaint, unless they are subjected to that unfortunate symptom.

It has been said also, that the continued discharge of matter, from an artificial wound,
made

made near the diseased part, is not of itself advantageous to the disease in question, but that the whole, or the principal benefit, is derived from the irritation; and this argument is not without foundation, for in the hip disease, the patients often find a remission of their hectic symptoms, and of their local pains, so immediately after the application of the caustic, and so long before it can produce any purulent discharge, that it is impossible to consider the new irritation, made by the caustic, as unimportant in the cure: but if irritation be an essential, and useful part of the surgical treatment, in what more convenient form, can this process be kept up, than by a large wound, made by caustic near the part affected, and frequently sprinkled with finely powdered cantharides?

In the disease of the hip joint, as well as in the diseased spine, the progress of cure is often slow and uncertain, a considerable length of time frequently elapses, before symptoms of convalescence appear. Under

such circumstances, if irritation contribute towards procuring this convalescence, I think it might be proper in some cases to renew it, which may be done by recurring to the practice of the antients, in the application of the caustic to several fresh places, as near the seat of the disease as possible.

The choice of the part, to which the caustic should be applied, is of the utmost importance. In the carious incurvation of the spine, the most proper place obviously presents itself, where the external convexity points out the internal malady. But in the hip joint, it is not easy to fix on a situation, which does not interfere with the action of the muscles, or which might not be inconvenient to the patient, in the various positions of the body; and at the same time it is necessary, that the issue be made, where it may have the most immediate, and direct influence on the diseased part.

The hip joint is surrounded by large muscles on the posterior part, which would necessarily

neceffarily prevent an external irritation from acting on the part moft affected; the frequent action alfo of thefe mufcles, in the motion of the joint, would baffle every attempt of the furgeon, to keep the wound open by peas, or by any other means, he fhould adopt for that purpofe.

The fituation of mufcles, nerves, and blood veffels, belonging to the lower extremities, is an infuperable objection to the application of a cauftic in the anteriour part of the joint, fufficiently deep or large, to check the formation of matter.

The outside of the thigh, in the hollow parallel with, and a little behind the great trochanter, affords a proper place to make the iffue. Here the peas are not likely to be expelled by the action of the mufcles employed in moving the joint, nor does a wound in this part, much incommode the various functions of the body, in fitting, walking, or lying down. It is fufficiently contiguous to the difeafed part, as the common integuments are almoft the only intermediate

mediate substances between the capsular ligament, and the external fore.

With regard to the mode of applying the caustic, it may be done in a way different from that, recommended by Mr. Pott, equally efficacious, but less painful. The laying on a caustic, and suffering it to remain on the part for several hours, gives a great degree of uneasiness, and much unnecessary terror; and if a method can be adopted, which gives less pain, or even apprehension of pain, it will always deserve the preference; the experience of every surgeon must convince him, how necessary it is, to use the most gentle means of curing diseases, which our art can devise, without defeating its purposes.

The operations of surgery, are in general, dreadful to the apprehension, and painful to the sense; and particularly, the timorous patient, whose nervous sensibility is quickened exceedingly, by the continual influence of a chronic disorder, shudders at the thoughts of caustics and cauteries; perhaps,

perhaps, one of the best, and most efficacious remedies, which in many cases, surgery administers to the unfortunate, was early exploded, from the terror which the mode of performing the operation, and the tremendous instruments and apparatus for the occasion tended to create.

The practice of the Greek surgeons in using the actual cautery, and of the Indians in using the moxa, for chronic affections of the joints and viscera, has been so long disused in this country, that the present mode of applying caustics, in the very same, or similar cases, wears such an appearance of absolute novelty, as to pass for an entire modern invention, instead of being considered as only a variation of old notions, and a mere improvement of ancient practice.

If it be certain, that the practice, here spoken of, was ever attended with any advantage, and merits continuance for the good it produces, if the present mode of laying on a caustic over a strumous disease of the bones, or other parts, is still to be considered

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ed as beneficial, it is fit, it should be known, that it may be pursued in a mode, more simple, more effectual, and expeditious, less painful, and less liable to excite the apprehension of pain, by means of the septic stone.

If this preparation be merely pencilled, or rubbed on the part, where the issue is to be made, it will at all times effect as much, as could be done by the actual cautery, by the moxa, or by laying on the caustic paste, and suffering it to remain on the part for several hours. This operation gives little, if any, terror to the patient, and never produces that intensity, or continuance of pain, which usually accompanies the application of a caustic, in the common manner, and it will always, under judicious management, accomplish with advantage and certainty, every object, which is to be effected by caustic.

The sensibility of pain, is certainly not the same in all subjects, for many persons bear the application of caustics, with much less

unea-

uneasiness than others ; but in general, the operation of rubbing the caustic stone on the integuments, is so little painful, where they are not inflamed, that the patients often doubt of its capability of producing an eschar.

If the skin is strained, during this mode of applying the caustic stone, the eschar is sooner produced, but at the same time, more pain is created. If it be intended, that the eschar should penetrate deep into the cellular membrane, the friction should be continued, till the integuments give way under its action : but in general, for the purpose of making an issue, it is sufficient to rub the septic stone, or lapis infernalis, as it is called, on the part intended to be affected, until the skin begins to change from its natural colour, to a brownish hue, which appearance it first exhibits, where the roots of the hair proceed from the cuticle.

In this method of making an issue, as in the common method of applying the caustic, a space of time, generally of twelve,

or

or fourteen days elapses, before the separation of the eschar takes place, so as to admit an introduction of the common white peas, which appear to me, better adapted for making, and sustaining the cavity of the issue, than the beans usually employed for that purpose.

In the management of this artificial wound, it may be observed, that it is liable sometimes to become a painful and irritable sore, at the first introduction of the peas; whilst this disposition subsists, the peas may be entirely omitted, and the wound dressed with spermaceti ointment; when the irritability is gone off, the usual dressing for an issue may be applied*.

A seton, has not in my experience, been so effectual in removing this disease, as an issue made by caustic, nor has the discharge

* For further observations, on this method of using the lapis infernalis, see Howard's treatise on the venereal disease, Vol. II. p. 172, a treatise on the Hydrocele by the same author, p. 47, and Dease's observations on the Hydrocele, p. 10.

been equally copious ; and, whilst I was in the habit of employing it, the suppurative state of the hip joint came on more rapidly, and more certainly, than in those cases, wherein I used the caustic. It is needless to insist on the necessity of a large opening, to suspend, or remove the suppurative progress ; a small issue with two or three peas, gives just as much trouble as a larger one. One of the most rapid progresses towards recovery, which I ever saw in the diseased spine, was in a case, where the caustic was carelessly applied, and suffered to extend into a large fore, which penetrated so very deep, as almost to denude the vertebræ. I generally make the issue of an oval form, one inch in length, and rather more than half an inch in breadth, which will be capable of containing about twelve or fourteen peas.

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SECT. III.

Of Abscesses in General.

IN the foregoing sections, the early stage of the disease of the hip joint, has been principally attended to; a local caries has been considered, as actually existing in a state of advancement, or a disposition to scrophulous caries, is presumed to have already taken place: but this real caries, or disposition to it, has hitherto been supposed to be prevalent only in a curable degree, and by no means so predominant, as to have totally destroyed, or even irreparably injured, the cartilage of the head of the thigh bone, or that of the cotyloid cavity.

It has been uniformly admitted, that the complaint is capable of being remedied, so as to preserve the motion of the joint; but

when this disease has remained for some time, a new train of symptoms succeed, very different from the former, and these are allowed, in the concurring opinions of all writers on the subject, and are known, from the experience of every surgical practitioner, to end in ankylosis of the joint, or in death: previous however to its termination, the disorder usually appears, in the form of an abscess, or collection of fluid, surrounding the hip joint, and projecting usually on the outside of the thigh, below the great trochanter.

This abscess does not advantageously admit of the treatment, generally adopted for those more superficial, namely, that of opening it by incision, or by caustic; but, as the complaint now presents itself externally, under the form of an abscess, a symptom, for which surgical assistance is invariably solicited, and, as abscesses have been generally subjected to the knife, or to the caustic, it may not be improper to consider, whether the indiscriminate adoption of the principle of opening abscesses, even in their most simple
state,

state, rests upon the solid basis of scientific surgery.

It becomes the more essential to consider it here, as this collection of matter, originating from disease in the hip joint, is in some instances, liable to be mistaken for a common abscess. Symptoms do not always, even at the time when it becomes most prominent, indicate to a certainty, the real source of the disease, it may therefore deceive an inexperienced observer, unless the antecedent symptoms have been carefully adverted to.

The general idea of a common abscess, seems to be a collection of matter, preceded by inflammation; the formation of this fluid, which is called pus, has been said to be necessarily connected with erosion of the solids; and the matter thus collected, has been supposed to have a corrosive effect on the circumjacent parts; nevertheless, it is alledged by more modern physiologists, that pus, in its natural state, unmixed with heterogeneous matter, is a bland, innocuous
 G 2 fluid,

fluid, secreted from an inflamed surface, and this opinion is supported by experiments, which shew that matter, whether collected from the inflamed surface of a mucous membrane, or issuing from the free discharge of an open ulcer, is not dissimilar in its chemical analysis, to other secretions of the human body, universally allowed to be specifically harmless. The necessity of entering minutely, into the distinct properties of pus and mucus, as leading to any great and obvious advantage in the practice of surgery, is by no means evident to my mind; especially, as a fact, most important in pathology, is proved by daily experience, namely, that this fluid, whether termed pus, or mucus, is capable of being absorbed into the circulation, without any inconvenience to the parts, on which it has been deposited, and of leaving them, when the absorption has taken place, in a state, still proper to resume their local functions.

But however true, or untrue, this opinion may be, it is certain, that the imagined
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and very questionable bad quality of this fluid, when considered, as necessarily connected with erosion of solid parts, or represented, as the efficient and primary cause of such erosion, has materially influenced the practice of surgery in the treatment of abscesses.

It is obvious to see, that this complex notion of matter, ill founded as it possibly may be, naturally leads to the necessity, and would therefore justify the propriety of opening abscesses in every method. For, if it were certain, that matter was a fluid destructive to solid parts, a fluid, in which an erosive quality was inherent, and from which it was so inseparable, as to be even capable of vitiating the whole constitution, when absorbed, it would undoubtedly be proper, and indeed necessary, to make incisions in every case, where it was collected, and into every cavity, where it was lodged; it would remain to pursue with the knife, this corrosive poison, through every sinus, to evacuate it entirely, leaving nothing finally for nature

to effect, but the slow restoration of continuity in parts separated, as the various exigencies required, and so divided with all the precision of surgical art.

In investigating however, the general progress of an abscess, it must be noticed that the inflammation, or morbid alteration of the solid parts, is most commonly a primary appearance, that the formation of matter is a secondary symptom, subsequent to the real disease. This is very apparent, when an abscess happens to be formed near the surface of the body, in parts liable to great irritability, and is deducible from symptoms, when the inflammation, or morbid disposition is deeper seated, and operates on less irritable parts; the opening into these cavities, which contain matter, has probably, no farther tendency to restore to a healthy state, those parts, on which the matter was deposited, than merely by removing the pressure of an extraneous substance: the progress of disease is more easily checked, when the admission of external air is prevented; for
 who

who has not seen the fatal consequences of opening abscesses of joints, and the quick transition of a strumous indisposition of bone, cartilage, or ligament, from a curable to an incurable caries?

The opening of abscesses has been always considered, as an important part of operative surgery: in Mr. Sharp's introduction to his surgical operations, and in Mr. Bromfield's, and Mr. Bell's later treatises on surgery, several rules are laid down on this subject, and the methods of opening these tumours, by simple incision, by excision of part of the integuments, and by caustic, are amply discussed; but the practitioner, who forms his opinion on this subject, from any of these treatises, without observing the complete progress of abscesses, uncontrouled by surgical treatment, will naturally be led to consider all abscesses, as proper to be subjected to a surgical operation, little notice being taken of those, which may safely be left to the more gentle expedient of being suffered to break spontaneously.

In the earlier part of my life, I was frequently a witness to the opening of abscesses in every part of the body, with a free incision, as it was then called, and often have seen large portions of the loose edges of the cavity, removed sometimes by the knife, as recommended by Mr. Sharp, but more frequently by the crooked scissars, an instrument, calculated to conceal the want of dexterity in the operator, but by no means adapted to the performance of such an operation, with the greatest ease, or advantage possible.

Painful as this process is at any rate, although executed in the most skilful manner, it is particularly repugnant to humanity, if it be considered, as not absolutely necessary ; it however leads to a treatment equally unnatural ; the cavity of the abscess is perhaps filled up with dry lint, an application intended by its pressure, to produce the effect of restraining the hæmorrhage caused by the incision ; but this mode of treating the wound, by dilating vascular, and irritated parts,

parts, often brings on a symptomatic fever, and sometimes also, that very flux of blood, which it is intended to prevent.

A method, apparently more gentle, has been since adopted. Surgeons have contented themselves with making a simple, but large incision into the cavity of the abscess, having found by experience, that the loose edges of the wound were not necessary to be removed, as they were capable of uniting to the subjacent parts. To this mode of operation, has succeeded that of opening of abscesses by caustic, and by seton, recommended as less painful means of discharging the fluid.

The opening of abscesses by caustic, is an expedient used frequently, when the patient will not from timidity, admit of a cutting instrument, but the caustic is a painful substitute; if the skin be inflamed, the additional pain of the caustic will be exquisitely severe, and it would be far better to bear for a time, a pain, which may be alleviated by opiates than to suffer the torture
of

of cutting, or burning an inflamed surface; when the integuments are not inflamed, the pain of the abscess is bearable, the opening it therefore in any way, seems to be a practice founded on the false idea of matter, being specifically injurious to the parts, on which it has been deposited.

It has been said, that abscesses connected with indurated lymphatic glands, should be opened in this manner, the action of the caustic being supposed to assist in subduing the enlargement of the gland: this method is very commonly taken in such cases, and speaking from my own experience, I must say that it is sometimes successful, but it has generally proved tedious: when the gland remains indurated, as it frequently does for a long time after the application of the caustic, the surgeon is obliged to have recourse to the lapis infernalis, the red precipitate of mercury, or some escharotic application to subdue it. But, where this kind of abscess has been suffered to burst of itself, and the general remedies have been used in the mean
time,

time, for the particular disease from whence it originated, whether it has been strumous, or venereal, the indurated gland has been generally found to diminish, in less time, and certainly with less pain, and with much less deformity of scar.

The opening of abscesses by seton, is also for the most part unnecessary; I venture to affirm, that the largest abscesses have been more successfully treated by a small counter-opening, made in some depending part of the tumour, without the intervention of the seton, than where a communication has been kept open, by an irritating substance lodged in the cavity of the abscess itself; and even this opening and counteropening is most commonly unnecessary, a more simple treatment being generally successful. The most disagreeable circumstance likely to occur in the spontaneous bursting out of matter from an abscess, is a fresh accumulation in its cavity; but this second abscess is almost always inconsiderable, much less troublesome, than

than the first, and generally completes the cure.

It may also be urged, that the indiscriminate opening of abscesses is not only objectionable, as it is often unnecessary, and always painful; but there are also positive evils, attendant on the operation itself, against which no caution, or skill in the operator, can be always secure; for the pain, and irritability of the part produced by incision, will at times occasion violent inflammation and fever; and in some constitutions, a spreading phagedenic ulcer has been the consequence of this artificial opening.

Venereal and scrophulous abscesses are particularly liable to this calamity; the slightest wound of the skin, even of phlebotomy, or of inoculating for the small pox has been known under some circumstances, to produce the most fatal effect.

To suffer matter, contained in abscesses to discharge itself spontaneously, seems to be consentaneous to the usual operation of nature in curing of diseases of this kind; it
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is generally the most easy to the patient, and the cure is more certainly and speedily effected : in this way, an unnecessary exposure to air, of parts unaccustomed to its influence, is avoided ; the contact of extraneous substances, frequently applied to an irritable and ulcerated surface, is entirely superseded, and the whole subsequent treatment of the external aperture, is consequently simple, and not liable to the various inconveniences of a large sore, often tedious in being healed, and always vexatious and disgusting.

The opening of abscesses of the breast, either by incision, or by caustic, is now universally given up, as experience proves, that by such operations, the process of the disease, inasmuch as respects its painful symptoms, is not altered for the better, nor is the final cure, thus more speedily accomplished ; but on the contrary, it is liable to be retarded by such treatment, as the artificial irritation produced on the skin, is sometimes the real cause of induration and repeated

suppuration in the gland, and often occasions other disagreeable symptoms.

This manifest improvement in the management of abscesses, is now generally adopted by surgeons in this particular instance, and the propriety of the practice is confirmed by the result of observations, naturally arising from the general success, which the poor experience in this disease; they, from their habits in life, are more subject to it, than the rich, and in general resign it to the operation of unassisted nature.

Venereal abscesses of the groin may also be left to the general effect of mercury on the constitution, and their local treatment will be rendered less complicated, when they are suffered to burst spontaneously, without being subjected to the knife or caustic: my own experience, joined to that of surgeons of very extensive practice, and observation in venereal complaints, justifies me sufficiently in saying, that the use of the knife, and caustic, in all such cases is laid aside, much to the advantage of the patient. I have scarcely seen a
phage-

phagedenic wound of the groin in the course of my own practice, since I have totally avoided opening inguinal abscesses by caustic, or the knife, and it seems both easy and eligible to follow the same method with respect to abscesses in general. Mammary and inguinal abscesses are very frequent instances of this complaint, and certainly, a simple mode of managing them with great success, may be considered, as establishing no bad guide for the treatment of abscesses in other parts of the body.

But it is by no means intended here to lay down general rules concerning the opening of abscesses; what has been advanced on this subject, seemed necessary to illustrate the treatment, I would recommend for the abscess of the hip joint, by pointing out the inutility of opening abscesses in general, by the knife, or caustic, for the purpose of discharging a fluid, supposed to be injurious to the animal œconomy: for, notwithstanding what has been said, I wish not to be understood, as if I meant to contend, that no abscesses

cesses are to be opened ; for opened, undoubtedly they must be, in many cases ; this, as well as other operations of surgery, will continue to be performed, till an easier method be discovered of removing many of those diseases, which are the objects of our art.

A collection of fluid, whether pus, mucus, blood, water, or even air, contiguous to, and pressing upon vital organs, acting as an extraneous substance, irritating, or in any way soever incommoding vital functions of the body, must be discharged, as soon as its existence is ascertained, because the surface, on which it lies, may be covered with a deposit of coagulable lymph, or may be otherwise in such a diseased state, as to be rendered unfavourable, or even incapacitated for absorbing the fluid ; or it may be, that time cannot safely be spared to try those means, which are known to facilitate such absorption, and this circumstance must always be duly attended to, when the extra-

neous

neous matter presses on the lungs, brain, or any important part of the animal machine.

This seems a sufficient reason for discharging the fluid by an opening, made by art ; as it is not by any means certain, that the absorption of matter, or any other fluid, in such cases, is the real cause of the evils, subsequent to a morbid affection of the viscera, the constitution seeming to suffer more from the diseased state of the particular part affected, than from the fluid secreted in consequence of such disease ; for it is evident that large absorptions of matter often take place in scrophulous and other abscesses, without injury to the constitution.

There is however, another set of abscesses, which are difficult to be managed ; the preservation of life is not immediately concerned in their event, but it is apparent, that when the tumour bursts, the cavity which contained the matter, does not collapse and easily unite, unless it be opened to some extent. These abscesses are often contiguous to parts, subject to continual irri-
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tation

tation arising from muscular motion, the frequency of which keeps up a constant excitement on the inflamed parts, and thereby seems to promote a secretion of matter, which insinuates itself into the cellular interstices of the muscles, and prevents the morbid parts from uniting. The necessity of keeping in a quiet and relaxed state, muscles connected with a diseased part of the body, is known to every surgeon: where it is difficult to produce this effect, the cure of inflammations, abscesses, and wounds becomes very troublesome and tedious.

Abscesses in the neck, near the muscles concerned in deglutition, respiration, or the motion of the head, those on the verge of the anus, in the perinæum, in the axilla, those situated on the outside of the arm near the olecranon, and many others, daily evince the truth of this observation*.

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* Inflammations, in abscesses, and fistulous openings near the olecranon, the immediate good effect of relaxation

There are likewise other circumstances, occurring in particular parts of the body, which render it expedient to deviate from a general rule of not opening abscesses, such as

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laxation of muscles is clearly evident : nothing is more common, than to see an extensive inflammation, and supuration take place on the outside of the arm, from a slight injury of the elbow ; whilst the arm is kept in a bent posture, the inflammatory disposition increases, copious discharges of matter, or glary fluid if the sacculus mucosus is injured, flow from the external wound ; and the probe, if thought proper to be used, would readily pass through sinuses downward to the wrist, or upward to the shoulder ; but as soon as the position of the arm is altered from flexion to extension, and the limb is steadily preserved in a state of quietude in that form, the necessity for operation disappears : the inflammation subsides, the cavities quickly coalesce, and every painful symptom is removed, whilst this simple indication of nature is pursued, of keeping in a relaxed and quiet state, parts affected with disease.

In abscesses of the axilla, the good effect of simple treatment would be very obvious ; whilst the arm is elevated daily, or perhaps oftener, to inspect the progress of the disease, to apply fomentations, poultices, tents, or injections, it is not at all surprising, that the action of

a remarkable thickness of the integuments, or an intervention of some strong fascia, between the external surface, and the collected fluid ; these circumstances happen in various parts of the body, particularly on the side of the head near the temporal muscle, and in the upper part of the head.

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the muscles, should militate against the union of the cavity of the abscess: on the contrary it is rather wonderful, that nature should under such circumstances, ever accomplish the union of a fistulous wound.

The following case occurred to me of the spontaneous union of a deep-seated fistulous sore in the axilla, which had resisted a long process of surgical treatment.

A. B. a gentleman of sixty years of age, valetudinary in his constitution, subject to pulmonary complaints, was at the approach of a very severe winter, attacked with a feverish indisposition, which terminated in an abscess in the axilla; it was slow and indolent in its progress, but at length it matured, and was opened freely by the knife; it continued to discharge for several months, sinuses being continually formed, all of which were opened; the wound contracted finally, to a small aperture, leading into a sinus, which extended far up under the pectoral muscle. The operation of opening, or counteropening was in this case impracticable; irritating tents, the
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In other parts of the body, such as those adjoining to the sacculus lachrymalis, the meatus auditorius, the vagina, or the rectum, the formation of matter is attended with the inconvenience of its being liable to burst inwardly into those cavities, so as to produce a fistulous sore; the necessity of treating these abscesses in such a manner as to prevent that misfortune, seems unavoidable.

Sublimate troches, and injections of various kinds were used to produce a coalescence of the fistula, but all proved ineffectual: at length he had determined to content himself with his misfortune, but going out of town, he was overturned in a carriage, and suffered a compound fracture of the arm; he was then necessarily confined to his bed, and the arm kept in a perfect state of quietude: at the end of six weeks, he recovered from his fracture, and at the same time, had the satisfaction of finding the fistulous sore in the axilla completely united.

SECT. IV.

On the Abscess of the Hip Joint.

WITH respect to the opening of abscesses, if it be not in general useful or necessary, there are certainly, reasons of strong and peculiar force against opening those, which communicate with joints: the authorities of writers concur with the opinion of practitioners, that no progress is made towards effecting a cure, by opening an abscess, subsequent to a carious joint: so long as the matter is contained within the capsular ligament, symptoms of general debility, emaciation of the body, profuse weakening sweats, and purgings, do not usually come on with great violence, or are often found capable of being moderated, by the use of those means, which the art of medicine affords; but if the matter be discharged by an

external opening, made either by incision, or caustic, and particularly, if that opening be large, or the diseased part irritated by tent, or seton, introduced into the cavity of the joint, dangerous symptoms come on with great rapidity, which prove fatal to the existence of the patient, or to the preservation of the limb.

When an opening is made into a joint, on account of glary fluid or matter, formed and accumulated in its cavity, from a previous indisposition of the cartilages or bones, the immediate effects produced by such an operation, are increase of pain, loose spongy flesh starting out from the cavity of the joint, copious and fetid discharges of matter, attended with such general symptoms of debility, evidently proceeding from an aggravation of local disease, as call indispensably and quickly, for the decisive practice of removing the limb, in order to preserve life.

But if a different mode of treatment be pursued, if the pain be moderated by opiates,

piates, if the fluid be not discharged by an external opening, in some instances it has been known to be absorbed during a patient attendance upon the disease, and an anchylosis of the joint has ensued; or, if the capsular ligament and integuments give way spontaneously, the fluid thereby oozes out by a small aperture, and the strength of the patient is not in this case, suddenly exhausted by a copious and continued discharge of matter; more time is gained for experiencing the powers of nature, or for administering the remedies of art.

In the abscess of the hip joint, the expedient of totally removing the diseased part, is out of the question; it is not worthy to be considered as a resource for the cure of the disease; no prudent surgeon can even think of such an operation; a caries in the joint of the knee, may be remedied by amputating above the carious parts, and thereby extirpating entirely the local disease: but the carious hip joint admits of

no such remedy ; the hardiest, and most enterprizing surgeon, who has ever attempted the removal of the whole lower extremity, by amputating at the hip joint, never aimed at more, than taking away the diseased head of the thigh bone, considering the portions of carious bone remaining, to be finally thrown off by a process of nature.

When so large a surface of the human body, is exposed by a surgical operation, which may reasonably be supposed to have taken place in a debilitated constitution, a favourable termination can scarcely be expected by the most sanguine, and overweening operator. It must likewise, be considered that this success, if it were even acquired, would be but a maimed and imperfect monument of our art ; and here I might safely observe, that there is great probability in supposing, that the caries begins in the cotyloid cavity, as often as in the head of the thigh bone ; certain it is, that in every case of disease of the hip joint, which has terminated fatally, I have remarked, that the

os innominatum has been affected by the caries in a more extensive degree, than the thigh bone itself*.

The records of surgery do not afford many instances of this very hazardous operation, having been performed for remedying the disease of the hip joint: the only case † in my recollection, strengthens the opinion which is generally entertained, namely, that an amputation at the hip joint, has but a partial tendency towards removing the disease; but in this dreadful situation, where the last resource of our art would fail, where the most adventurous surgery cannot remove the complaint, the simple energy of nature frequently supplies the deficiency, and only requires the assistance of medicine to support the constitution during the tedious process of convalescence, rejecting as it were with horror, the active aid of operative surgery, as

* See plates III. IV. V. and VI.

† See Medical Commentaries, Vol. VI. p. 337.

an exercise of skill, something worse than ostentatious and useless.

When a caries of the joint has existed for a considerable time, varying, as has been said in length, with the different strength and habits of the patients, an external suppuration generally takes place in some part contiguous to the joint: it most frequently happens below the great trochanter over the vastus externus muscle, sometimes in the anterior part of the thigh, frequently on the nates, or higher up in the loins, and oftentimes in all these parts successively.

The progress of this suppuration, is generally attended with a slight tension, and some degree of tenderness of the part, sensibly felt on pressure: it is not always accompanied with any great increase of lameness or general debility, with shiverings, or the usual symptoms of the formation of matter; on the contrary, the painful symptoms of the disease sometimes diminish, while the suppuration is advancing, and this is a circumstance, which often happens
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when matter is formed upon diseased bones in other parts of the body : meanwhile the patient is generally capable of using his accustomed exercise, and may often continue to do so, although the abscess has formed a very large and prominent tumour, until the moment arrives, when it bursts.

This however is not the most common progress of the disease, inflammation and fever are frequently attendant on the suppuration ; but however these symptoms vary in different patients, depending probably, upon peculiarity in constitution, upon the quantity of diseased bone producing irritation, or upon some other cause, not easily ascertained, still the local treatment in every case should be as simple as possible : for there is no rational system known, which can point out the advantage to be derived from an artificial opening made in any way whatsoever, during this stage of the disease, neither is there one case on record, where an active employment of the art of operative surgery has been found materially

terially useful, in this period of the complaint.

Where the constitution suffers little from the suppuration, internal medicines are not much wanted ; when painful symptoms arise from the disease, they are to be relieved by such means, as the exigence of these symptoms require. As the abscess advances towards suppuration, the minds both of the patient and his friends, are often raised to a great pitch of anxiety, expecting the termination of the disorder to be synchronous with the discharge of matter from the abscess ; as this however cannot be effected, the period is arrived, when the judgement and resolution of the surgeon may be shewn, in resisting the sollicitations, which are frequently made to him to discharge the matter by operation.

It may seem a trifling variation of practice, to suffer this matter to make its own way gradually through the integuments, instead of seeming to assist it, by making a small puncture with the lancet, or pencilling
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the skin with the lapis infernalis ; but on the minutiae of practice, success frequently depends. Whoever has attended to diseased joints and bones, may have observed that the efforts of nature, towards the cure of a diseased bone, are more easily assisted, and proceed with more certainty, where external suppuration has not been encouraged, where air is not admitted, where general means only have been used to support the constitution, and the necessary remedies have been adopted as symptoms seemed to require, to counteract the particular cause of the diseased bone, whether it be venereal, or strumous taint, than in those cases where a different plan has been pursued, and large openings have been made over the bones diseased.

In the cure of incurvated spine from caries, if matter has not made its external appearance, so as to become of itself an object of surgical treatment, the difficulty and the hazard is comparatively small, and can in no degree be estimated with those dangers, which attend the case, where it finally makes
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an external appearance, under the form of a vertebral, or psoas abscess.

Whoever is of opinion that the formation of matter may safely be considered in this disease, merely as an adventitious circumstance, that it does not specifically add to the caries, or do local injury to the parts, will naturally be anxious to adopt a plan, which tends to prevent, or at least to retard the necessity of an external opening, and particularly, as the important interval of time, gained by this delay, may be wisely and beneficially employed in invigorating the constitution, and thereby meliorating the state of the disease.

Whenever this external opening unfortunately takes place, whether it be made by art, or whether it be the gradual effect of the integuments giving way from tension, the probable consequences of the instantaneous discharge, are hectic symptoms, and, if these symptoms come on, they may be considered as indications of the original disease

ease, being in a state by no means leading to convalescence.

When the abscess bursts spontaneously, the opening, which is generally small, often closes again for a few days, the matter being entirely discharged, or some portion of it remaining in the cavity; either of these circumstances may occur without injury to the constitution in general, or any aggravation of the local disease. The abscess will frequently continue in this way, collecting and bursting, and the patient may still for a considerable length of time, be favoured with the enjoyment of very tolerable health.

But, if the tumour be opened even by a small incision, the cavity being instantly and totally emptied, and an aperture left open, through which the fluid finds a ready outlet, as quickly as it is secreted, a much greater prostration of strength will probably ensue, than if the abscess had been suffered to burst in its natural course.

To support properly the vital powers in all strumous diseases, not attended with lo-

cal inflammation, is allowed to be a rational mode of cure, for certainly, whatever has an immediate tendency to produce debility, seems likely to increase the disease; but the opening of strumous abscesses, connected with diseased joints, is known to produce this effect almost invariably, and ought therefore on the foregoing principle to be carefully avoided in every possible case.

When a large extensive caries has taken place in the hip joint, affecting the head and neck of the thigh bone, and the acetabulum of the ischion, the principal hope of cure seems to be the formation of an ankylosis in the joint, supposing the upper extremity of the bone not to have escaped from the cotyloid cavity, or that cavity not to be so much destroyed, but that it may still admit of an ankylosis.

This is the best object to be now pursued, and however uncomfortable it may seem to the feelings of the patient, and of his friends, that the surgeon should look for his ultimate success, in the dismissal of a lame
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and halting object from his care ; and that the attendance of three or four years, can produce nothing better than such a discreditable instance of our art, it is the only resource, which nature affords in so desperate a situation, the parts affected are not absolutely vital organs, but from their situation are nearly connected with them : to preserve life, where such evident danger has existed, is the grand object to be aimed at, and if it cannot be attained without loss of parts, and their consequent motion, the imperfection of the science of surgery is to be regretted, and no blame can properly be attached to its professors*. Where impossi-

* *Quam graviter illi laborent, qui initio articuli inflatione, dein humore illo stagnante afficiuntur, qui inflationem excitat, et acris factus irritat et corrodit internas, deinde etiam externas partes, norunt illi, qui per menses et annos, sedulo omni attentione talia deligaverunt ulcera, pedetentim enim ulcera illa innumeros sinus generant, quotidie insignem quantitatem ichoris fundunt, crus atrophiam afficiunt, deinde et totum corpus, vel, eroso articulo inevitabilem, atque simul incurabilem producunt anchylosin. Schwencke Hæmatologiæ p. 211.*

bilities cannot be effected, where bone and cartilage absolutely destroyed, absorbed, and annihilated as far as respects this part, cannot by any art be reproduced, the preservation of life at any rate, and the preservation of the limb, as entire as possible, are still very important objects, and well worth pursuing.

Est quadam prodire tenus, si non datur ultra.

Towards the attainment of these ends, the science of medical surgery affords much assistance, but surgery strictly considered as a manual art, is but of little service. The opening of the abscess, and exposing the diseased joint in some measure to the influence of external air, may even from theory be considered, as having a tendency to increase the morbid affection of the parts ; but it is certainly known, that in this complaint the cure is not accelerated, equivalent to the hazard incurred, nor perhaps is there any advantage derived from such an operation, in any cases of diseased bones,
except

except where the carious bone can be entirely removed.

If it be said, that an exfoliation takes place much sooner, where the surface of the diseased bone is laid open, it ought to be recollected, that the exposure of the bone to air, often creates the necessity of this exfoliation; whereas, if it be not exposed to air, experience proves, that a diseased bone frequently alters to a healthy state, and that even an extensive surface of bone sometimes recovers itself, without apparent loss of substance, where the integuments have not been opened: this is eminently conspicuous in enlargements of cylindrical bones from venereal and scrophulous attacks. If such alterations take place, as they certainly do, in the interstices between joints, is it not proper, and indeed necessary, in all abscesses proceeding from joints, and particularly in the case of the hip joint, to adopt such a practice, as does not expose to air, parts which are too nearly connected with the general welfare of the human system, to ad-

mit of large exfoliations, or of any treatment, which produces such long-continued and copious discharges of matter, as are the unavoidable consequences of a free opening into these cavities?

The practice of suffering such abscesses to burst spontaneously, is not always successful, but instances of fortunate terminations are sufficiently frequent, to justify an adherence to the practice of forbearance: whereas on the other hand, the practice of making a large opening, either by incision, by caustic, or by seton, into abscesses communicating with caries of joints, is in almost every instance, well known to be followed by a train of untoward and hopeless symptoms, which usually terminate in death.

Hectical symptoms, it is admitted, will sometimes ensue, after the spontaneous bursting of an abscess from the hip joint, and doubtless require the utmost attention and assistance. Colliquative sweats and purgings, great emaciation, and an almost total prostration of strength, frequently occur under the

the mildest possible treatment of the disease ; when the abscess has burst, the patient will lie sometimes for months, without the ability of assisting himself, and will scarcely bear to be touched in bed, without crying out in agony from the pain in the joint : all this may be considered as a natural consequence of the loose and unconnected state of the carious bone, and of the irritable state of the fleshy parts surrounding it ; nevertheless, this most unpromising case will sometimes terminate successfully, if all unnecessary surgical operation be forborn, if unnecessary motion in the limb be avoided, and if such medicines are administered, as are of sufficient efficacy to counteract the most urgent symptoms of danger ; opiates to mitigate pain, and the peruvian bark, administered in as large doses as the stomach will bear, have in many cases, which I have seen, been unquestionably serviceable.

To render this practice successful, a nutritive diet, and good air, are essentially requisite : patients labouring under this disease

have usually an inordinate desire for animal food, which, within reasonable bounds, may safely be indulged. In cases of lumbar abscesses, and of abscesses from the hip-joint disease, I have invariably seen the good effects, arising from a change of the antiphlogistic to a cordial plan of diet. Many of the objects of this complaint, exhausted by a profuse, nocturnal perspiration, have in the morning been importunate for refreshments of the most solid nature; they have an eager craving for strong soups, meat, porter, and wine, and sicken at the offer of tea, barley water, and weak diluting beverages; so far from denying these indulgencies, I have uniformly experienced the advantage of complying with them.

The beneficial effects of good air, in every period of this complaint, are known to all practitioners: in the less dangerous attacks of scrophula, the disadvantage of living in large cities, in crowded hospitals, in narrow streets, and in small, low, or damp houses, are well known, but in the hip-joint disease,
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the benefits derived from a country air, and particularly in an open situation near the sea, are so great, that they seem to supersede in a great measure, every other medical attention.

This simple mode of treatment, in which the principal points are, to avoid surgical operations and unnecessary motion, and to procure as much as possible an enjoyment of good air, and nutritive diet, requires perhaps no stronger recommendation, than the reflection, that the method, to which it is opposed, is uniformly unsuccessful, whilst this more easy one, both for the patient and the surgeon, has the superiour advantage, of being less terrible to the feelings of the object principally concerned.

It may not however be improper in this place, to call the attention of the practitioner to some facts, which arise from the comparison of this with other diseases of bones, where the simple efforts of nature alone, seem to be more successful, than the best-performed operations of art.

A carious state of the vertebræ, is a complaint,

plaint, known to be of the most fatal tendency ; yet this disease, where external sup-
 puration has not taken place, is by proper
 treatment oftentimes cured. Where an ex-
 ternal abscess has unfortunately happened,
 either from the nature of the complaint, or
 from the want of a judicious application of
 the caustic in an early period, a successful
 termination is more likely to result from
 such a plan, as is here recommended,
 which imitates the proceedings of nature
 in her cure of the disease, than from the
 method to which it is opposed, which wastes
 the powers of the constitution by large open-
 ings, unavoidably productive of copious dis-
 charges of matter. In many cases of this
 kind, where I have carefully observed the
 progress of this lamentable disorder, I have
 noted, that with very little surgical treat-
 ment, and scarcely any manual operation,
 but with the strictest attention to a liberal
 and nutritive diet, and a free use of the bark,
 as symptoms seemed occasionally to require,
 the disease has been kept at bay in many cases,
 and

and in some, has been absolutely removed, the cure proving, so far as I have been able to collect, permanent, for although the incurvation remained, the patients have continued well in other respects.

There is no circumstance better known in surgery, nor any fact more worthy of attention, than the difference of success attending the treatment of fractures and dislocations, which are called simple, and those, which are commonly distinguished, by the denominations of compound fractures and dislocations. Simple fractures, namely, those not accompanied with a wound penetrating to the fractured bone, with very few exceptions, are easily cured, and bring equal credit to the surgeon, and comfort to the patient. But the cure of compound fractures and dislocations, particularly where they are thought necessary to be frequently opened, for the inspection of the surgeon, and for the application of plasters, poultices, and fomentations, becomes tedious, and frequently hazardous. Inflammation, fever,
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and suppuration often ensue, the extremities of the fractured bone unite with difficulty, the cure becomes stubborn, the art of surgery is depreciated, the patient's hope of recovery frustrated, by repeated suppuration from parts connected with the injured bone, much of life is lost, and perhaps the final resource of amputation becomes after all, unavoidable.

A process not altogether dissimilar, sometimes takes place in diseases of joints, and particularly in that of the hip joint: to a simple fracture of bone, may be compared that kind of caries in the hip joint, which, commencing in abrasion of the cartilages, and terminating in ankylosis, proceeds in its various stages, without an external opening formed from the diseased bone. Though the head and neck of the thigh bone, and the cotyloid cavity, become in the progress of the complaint, as it were, obliterated, and an absorption of bony matter be daily going on, a fact clearly ascertained by the shortening of the limb, though an ankylosis of
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the joint take place, if the extremities of the bones are in such a situation, as to admit of ankylosis, though a new position of parts may ensue, and a long series of years elapse, before a firm consolidation can be effected, yet the risk, as far as it concerns the life of the patient, is almost totally done away*: the tedious interval is not marked by the impending terror of death, the symptoms of hectic fever, colliquative sweats and purgings, and extreme weakness, which usually precede its fatal conclusion, when attended with external suppuration, rarely in this simple state of the complaint, combine to embitter the many years of suspense, which must elapse, before a perfect convalescence can be accomplished.

During this state of the disease, which is a caries of the joint proceeding to ankylosis, without an external suppuration, much relief may occasionally be given to the patient by medicine, and by a regimen com-

* See case XIV.

prehending an attention to diet, air, cloathing, and every minute particular, which has a tendency to counteract caries, or a scrophulous disposition of the habit. Every circumstance also, which is capable of exciting inflammation and suppuration, in the part affected, must be carefully attended to: such local exacerbation of the complaint, if likely to take place, is to be obviated by topical bleeding with leeches, or cupping; blisters, or even an issue, may occasionally be used, as symptoms appear to require, and in addition to those means, no plan can be more strongly recommended on every just principle, than to take off, as much as possible, the pressure of the trunk from the diseased joint. In this state of the disease, the shortening of the thigh bone, the deformed appearance of the hip, manifestly prove a caries of the joint, as evidently as a caries of the vertebræ, or a mollities ossium, is demonstrated by an incurvation of the spine.

The utility of the machines contrived by Vacher, for such distortion, or incurvation of
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the spine, consists in their power of supporting some part of the weight of the head, so as to lessen its pressure on that chain of bones, which is supposed to have undergone a morbid alteration; for it is not demonstrated that any spinal machines are capable of producing an elongation of the vertebræ. Reason and experience shew, that any degree of violence, applied to diseased bones, has a tendency to increase the disease. The advantage of these machines, if they but serve to take off pressure, cannot be doubted.

Their aptitude for this purpose, and their acknowledged utility in the support of the head, and the diminution of its pressure on the trunk, are facts deserving attention: and it would be fortunate, if the knowledge of these circumstances could suggest any important mechanical improvement, calculated to produce the same beneficial effect in the hip disease, as nothing can be clearer, from natural manifest indications, than, that the patients must feel ease and advantage from
every

every expedient to prevent the weight of the body, in any degree whatsoever, from pressing on the joint, during the prevalence of the disease, or whilst it is in a state of gradual convalescence.

Although in every stage of the cure, the patient be well assisted by tonic remedies, as far as they respect air, diet, and medicine, except at those times when an inflammatory diathesis requires, and warrants a deviation from such an indulgent treatment, and although every method be adopted to prevent, if possible, an external suppuration, yet the general plan of cure may be aided, and improved exceedingly by a vigilant attention to every lenient device, which a perfect knowledge of the local nature of the disease, can suggest to the ingenuity of the surgeon.

When air and exercise are recommended to the patient to improve, and to maintain his general system of health, it is fit and necessary that he be supported with great care and convenience on crutches: he must not
be

be suffered to hobble with a stick in one hand, or to rest with any stress on the toes of the limb affected; for it is obvious, when a shortening of the limb has indubitably taken place, that no means have been hitherto discovered, which can restore loss of substance in bones and cartilages, and that this shortening of the limb does not depend upon spasm and contraction of the muscles, and therefore every attempt made to procure its elongation, either by encouraging the patient to use it without the assistance of crutches, to trust to a stick only in walking, or else by adding a leaden weight to the sole of his shoe, which is sometimes injudiciously done, must necessarily irritate the disease, and provoke an external suppuration, the event which of all others should be principally dreaded, and most carefully avoided.

The necessity of constantly poising, and properly supporting the body on crutches, cannot be too strongly enforced; if they be left off too soon, all is undone; whatever may have been gained will quickly

be lost, and a fatal termination of the disease must speedily follow.

The unfeemliness of using these cumbersome supports, operates strongly on the minds of young patients, who are naturally desirous of availing themselves of the use of their limbs, and are eager to get rid of the marks of old age and infirmity; too often to their future sorrow, they throw them away, or at least occasionally neglect them, before a firm and indissoluble union has taken place between the thigh bone and the os innominatum, and the natural consequence is, that fresh suppurations come on, from too heavy a pressure on bones loosely connected, or not completely ankylosed.

Another circumstance, which enforces the propriety of supporting the body on crutches, during every period of the complaint, prior to a firm and complete union, is, that from an attempt to bear on the limb before a consolidation of the bone is effected, irritation and pain, are necessarily produced

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in the diseased hip, whence the patient is obliged to bear on the opposite side, with a view of throwing a greater proportion of the weight of the trunk on the sound limb; this soon becomes a habit, which in young persons almost invariably produces a distortion of the spine, in a greater or lesser degree; and this calamity adds considerably to the unhappiness and deformity of the sufferer. There is besides all this, a danger of occasioning, by such precipitate and indiscreet practice, a contraction of the superiour aperture of the pelvis, * from incurvation of the os sacrum, a circumstance peculiarly unfortunate to female patients.

Pressure and muscular motion operate powerfully and extensively both in the progress, and termination of diseases of joints, the pathology of which is difficult to be explained without a particular reference to their local situations. A caries of bone is the same in every part of the body, whether it be

* See plate V.

a disease in the bones of the toes, the foot, the ankle, the knee, the hip, the vertebræ, or the bones of the fingers, the wrist, the elbow, or the shoulder, but the termination of caries is not equally disastrous in those several parts, all equally liable to be affected by it: the event being influenced by the particular situation of the bone.

In attending to diseased joints, it may be observed, that the same disease of white swelling, as it is commonly called, or caries, existing in the extremities of bones forming joints, is not so fatal in the upper, as it is in the lower extremity. This disease occurs in the elbow joint, and in the wrist, as frequently as in the knee, and in the ankle joint: but it is not attended with equal fatality. It is well known, that amputation of the arm is by no means so often performed as that of the leg; neither is it so often necessary to amputate, for the same complaint of the elbow, or wrist joint, as it is for that of the knee, or ankle joint: the true reasons for this difference may probably
appear

appear from considering the situation, and motion of the respective parts affected with one and the same disease.

A patient applies for surgical assistance, in a case of strumous caries in the wrist or elbow, the disease being clearly marked by enlargement of the joint, by violent pain, by abrasion of cartilages, and wasting of the limb, above and below the diseased part, symptoms which, if left to themselves, are well known, to terminate sooner or later, in suppuration of the parts: yet the practice of surgery shews, that in the upper extremity, the suppurative progress is more easily checked by art; and that the means, even of curing the disease, are more successful, than the very same means are, when employed in the cure of similar complaints of the knee, and much more of the ankle.

Whence does this arise? or how is it to be accounted for? I think the cause is to be found in the situation of the part, which is not so much exposed to the irritation of pressure, and easily admits of a state of quietude

tude favourable to the operation of remedies, whilst at the same time, the patient is capable of using freely that general exercise, necessary to support his health.

When the same cause of complaint exists in the ankle joint, even with a less degree of disease, there are but few who can, and fewer still who will give to remedies, their full probability of success, or to the parts affected, a fair chance of recovery, by submitting to that confinement, and continuance in a state of rest, which is indispensable, in order to promote the sanative operation of the one, and the relief and re-establishment of the other: it might perhaps be impossible to have such ease as is requisite, or a complete advantage of rest and indulgence for the lower extremity, consistent with the loco-motive exercise, and change of air, essentially necessary to preserve the constitution for a length of time in a sufficient degree of vigour, to resist the ill effects of an existing scrophulous caries, or of a bad disposition of the part, tainted with

with scrophula, and hastening to caries. It must likewise be remembered, that the cure of diseased joints, whether effected by nature in her process of ankylosis, or accomplished by art, so as to preserve uninjured the cartilaginous ends of the bones, is a tedious operation, liable to be interrupted by a variety of causes, contingent and difficult to be foreseen. If such a disease of the ankle joint proceeds to suppuration, and an external wound ensues, it then becomes a malady, to be cured only by amputation; for the parts being thus injured, experience shews that the disease would otherwise prove fatal. When the cartilages of the bones, which form this joint, are abraded, it is difficult to conceive, that an ankylosis can become sufficiently strong to bear the weight of the body, it would be liable to be disturbed, by the least attempt at active exertion, nor does it seem probable, that the whole weight of the trunk, can ever be permanently supported on this joint, although it were perfectly united by ankylosis.

This opinion I have formed from a careful, and unprejudiced consideration of this disease, as far as it respects the joint of the ankle, for I have never seen a firm and useful limb preserved, after a caries had once really taken place in this joint, or after a disposition to caries in it, had clearly become manifest: on the contrary I have always observed, that the cures boasted of in such cases, whatever reputation they may bring to the performers, do little for the unhappy patients, ultimately proving to be suppositious and short-lived. The joint of the knee, is also peculiarly unfortunate, when it is attacked with this disease; instances however of successful treatment occur much oftener, than in the ankle joint; when a strict adherence to rest has been maintained for a considerable length of time during the early period of the disease, local applications have been manifestly useful, and the joint has been preserved entire. In other cases, where the caries has been more advanced, an anchylosis has taken place in the knee joint,

joint, between the condyles of the thigh bone, and the upper end of the tibia; and, if during that process, the leg has been kept extended, it has sometimes happened, that the limb has been preserved in an useful state*; but if it has been kept in a bent position, during the course of the cure, the limb so preserved cannot be of much use, and it would have been better, for the general purposes of life, if the patient had suffered an amputation, and availed himself of the well-contrived, and commodious substitutes which ingenuity supplies.

But there is a wide difference, when a caries takes place in the wrist, or elbow joint; for although an ankylosis should not quickly form, the necessity of amputating the upper extremity does not certainly follow, merely because the joints are carious, it being a known fact, that this disease, particularly in young subjects, often continues for a great number of years, producing re-

* See case V. of white swelling of the knee.

peated suppurations without any very material injury to the constitution, and yet, even at last, a complete and acknowledged caries may terminate, with the inconvenience only of a stiff joint, and the limb itself in a state of ankylosis, may become very useful, provided it be kept in a proper position, during the formation of that union.

The certainty of this fact is highly useful, and it is of great importance to be generally known by all practitioners of surgery, who should be well apprised, that a caries of a joint, is not of itself, acknowledged as an indispensable reason for the removal of the limb; the energies of nature being often equal to the correction and cure of such strumous diseases; it will be found, that the most unpromising, and far-advanced cases often terminate successfully without any such operation. This is a fact well known to, or boldly assumed by irregular practitioners of medicine, and surgery, who availing themselves of that dread of pain, which is inseparable

parable from human nature, graft their own profit upon it, by censuring and condemning indiscriminately, all surgical operations in these disorders, craftily leaving them to the powerful efforts of nature, which often remedy them spontaneously without the intervention of art, whilst they thrive by the means of the useless, and trifling medicines they vend, and impudently impose on the credulity and weakness of mankind, by arrogating to themselves the reputation of cures, which, when not entirely effected by nature, are either abortive, or scarcely outlive the ephemeral production which announces them. So just is the observation of Mr. Pott on the practice of empirics, respecting their treatment of the fistula in ano, applicable also with equal propriety, to their treatment of many other local complaints. “ Regular
“ practitioners are looking for what these
“ people do, but overlook what they do
“ not do.”

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SECT. V.

*Cases of the Disease of the Hip Joint, with
Observations.*

CASE I.

*Disease of the Hip Joint in its early state, cured
by an Issue made by Caustic.*

MR. ASHFIELD, in Great St. Andrew's Street, Seven Dials, on the 30th of December, 1789, desired me to see his son, a boy of eight years old, on account of a Lameness, proceeding from a complaint in the hip joint: the parents of the child, were apparently healthy, except that the father was subject to ulcerations of the eyelids; the boy was of a fair complexion, and had enjoyed an uninterrupted state of health,

health, till the last six months, when it was observed that he was very lame, and was easily tired in walking.

At the time I saw him, he was just recovering from a fever, for which he had been attended by Mr. Jackson, apothecary, in Soho square; the right leg was swelled about the ankle, and the pain in that knee was so violent, that it could not be alleviated by opiates; the thigh and leg on the same side, were wasted, and the limb affected, was found to be half an inch longer than the other: the lymphatic glands in the groin were enlarged, and he felt uneasiness on pressing round the hip joint. The general state of his health was much affected, he was very weak, and sinking under profuse and colliquative sweats. The bark, which had been very judiciously ordered for him, was continued, and the following day, I applied the caustic, rubbing it on the skin, so as to produce an oval eschar, an inch in length, and half an inch in breadth, behind the great trochanter of the thigh bone: I saw the pa-
tient

tient several times, during the first fortnight after the application of the caustic, and had the pleasure of observing that the local and general symptoms of the disease began to give way.

On the 16th of January, 1790, the issue discharged freely, his strength and appetite were returning, he slept during the whole night, and the colliquative sweats were considerably checked.

Feb. 9th, he continued gaining strength, walked with a stick, but was very lame; his mother however thought, that he then walked better, than he had done for four months, the pain in his knee was entirely gone, and from this time, there was a visible alteration in every respect for the better.

In the month of June, the parents sent him to school, keeping the issue open at the same time with great care.

August 10th, the elongation was still evident, but the boy was in every other respect well, and walked three or four miles a day.

December 7th, 1790. I found him in a
perfect

perfect state of health, the limb was of the same length as the other, and the emaciation of the thigh and of the calf of the leg, was no longer perceptible; he kept three peas in the issue, he went to school at some distance from London, using the same exercise as the other boys.

October 9th, 1792, the issue was dried up, and the boy remained quite well.

CASE II.

Disease of the Hip Joint, cured by an Issue made by Caustic.

ABRAHAM LEWIS, a boy of seven years old, was recommended to the Westminster General Dispensary, September 16th, 1790: he was of a pale complexion, and appeared greatly emaciated; he had not been able to get out of bed, for the last three weeks, without assistance, and when taken from the bed, he could not walk for the first hour.

After

After walking, he soon became tired, he was frequently sleepless during the whole night, and cried out incessantly from pain in his right thigh and knee: the thigh and leg were wasted considerably, the lymphatic glands in the groin were swelled, and he felt much difficulty in moving the limb. On measuring the two lower extremities, the diseased one was found to be half an inch longer than the other; it was very manifest, that he could not support the trunk, equally on both the lower extremities, for in attempting to stand in an erect position, the body was inclined to the left side, and principally supported by the left leg, which was in a firm and rigid state of extension, whilst the right knee was bent, and partially relaxed.

On the 17th of September, I applied the caustic, in the manner described in the foregoing case: on the 22^d, I saw the patient again, and was informed, that the pain in the knee was lessened, and that his health was somewhat mended.

On the 30th, he was much stronger, walk-

ing without any assistance, and the issue discharged freely.

On the 18th of October, he was free from pain, his health was much better, and from that time he continued mending visibly in every respect. He kept the issue open for two years, its surface being frequently sprinkled with powdered cantharides, but no other external applications were used to the part, nor any internal medicines given, excepting small doses of powdered jallap to keep his bowels open. On the 18th of October, 1793, I saw this patient, in the enjoyment of perfect health.

CASE III.

Disease of the Hip Joint attended with an external suppuration, and terminating in Anchylosis of the Joint.

ON the 28th of September, 1785, a gentleman from Great Marlow in Buckinghamshire, called on me to see his daughter, who

who had a violent pain and swelling from the hip joint; the limb was contracted and wasted, and she complained much of frequent pains in the knee; she was eleven years of age, apparently healthy in every respect, but what proceeded from the effects of the local disease. She had no disposition to pulmonary complaints, no scrophulous enlargement of the extremities of bones, nor any other symptom, which indicated a strumous constitution.

The caustic was applied in the usual manner; a suppuration however from the joint soon followed, but was not attended with any dangerous symptoms. The abscess was suffered to burst spontaneously, and continued discharging near two years, when the fistulous sore healed without any particular treatment. I did not see this patient, above three or four times, but the result of the case was, that she kept the issue open for several years, and at the present period, October 1792, she is grown, a tall, healthy woman, free from any

inconvenience, but what arises from the limb affected being about half an inch shorter than the other.

CASE IV.

*Disease of the Hip Joint cured by Anchylosis,
during the use of the Caustic.*

JOHN WILSON, son of Mr. Wilson, No. 5, Gibson's Court, Marybone Street, St. James's, was brought to me, in the year 1778, at the age of four years, labouring under the symptoms of the disease of the hip joint, with an emaciated and elongated limb, pain in the knee and hip, and general symptoms of a debilitated habit of body. I recommended the use of the warm bath, which was continued a long time without any permanent benefit, although it produced a temporary alleviation of the painful symptoms. Electricity was likewise used, and repeated blisters were afterwards applied to the hip, without any real advantage.

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In 1781, three years after his first application, large doses of laudanum scarcely produced a temporary suspension of the pain, and his general health daily became worse. I then made a large issue by caustic on the hip; the pain gradually diminished after this application, and he began to walk on crutches within a few months: he kept the issue open five years with great perseverance, and at length recovered with a stiff joint. On the 30th of October, 1792, the joint seemed perfectly ankylosed, he walks several miles in the day, goes through the daily laborious occupation of a carpenter, and I observe that in raising the diseased thigh, and in walking, the motion evidently appears to arise from the whole column of the vertebræ, moving, as it were, on the axis of the sound joint.

CASES V. AND VI.

Instances of the Disease of the Hip Joint, in which the Caustic was applied with apparent benefit, and an external Suppuration ensued upon drying up the Issue.

J. SHAW, eight years of age, was brought to me, in February 1789, by his father, Mr. Shaw, Ironmonger, in Moor Street, St. Ann's, Soho, for a complaint in the hip joint, which shewed itself by an elongation, and wasting of the limb, a flatness of the nates on the affected side, pain in the knee, and general symptoms of debility. The patient was evidently of a strumous habit, pale, and emaciated, with glandular swellings in the neck, which had suppurated.

The particulars of his disease, which came to my knowledge, were, that in the preceding year he had the small pox, which left him in a weak state of health; his parents sent him to the country for his recovery,

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very, where he fell from a hay-rick, and soon after the accident, he was observed to walk very lame.

The disease being evident, I applied the caustic in the usual way, a small distance from the great trochanter; he was quickly relieved from some of the most painful symptoms of the complaint, and afterwards improved in his health. The issue was kept open for some time, discharging freely. His parents however, anxious for a recovery more speedy, than what I could promise, took him to a professor of animal magnetism, at Hammer-smith, by whose advice, the issue was healed, and he was directed to bathe the part affected with milk and water. I did not see this patient again, for five months, when he was brought to me, with a large abscess, which extended from the os sacrum, to the upper part of the thigh. This suppuration, I was informed, had taken place about two months after the issue was dried up. I advised him to suffer the abscess to burst spontaneously, to take the

peruvian bark, and to support him with good nutritive diet.

His progress to convalescence was very slow, the abscess discharging from several sinuous ulcers for more than two years; but at this time, he is perfectly recovered with an ankylosed joint, and walks without crutches, on a high-heeled shoe, resting principally on his toes: in progression, and in raising the limb, there is an evident motion in the lumbar vertebræ; his scrophulous symptoms have all disappeared, and he seems likely to overcome every symptom of debility in his habit.

Ann Rescorla, daughter of Mr. Rescorla, taylor, in Charlotte Street, Portland Place, was brought to the Westminster General Dispensary, when she was five years of age, for a lameness in the right leg and thigh, she was of a fair complexion, and light hair, had been subject to sore eyes, and eruptions on the head, which came on soon after the measles. She suffered exceedingly from the
 pain

pain in her knee, the leg and thigh were emaciated, and the general state of her health was considerably affected.

I made an issue with the lapis infernalis, in the usual place, its immediate good effects were soon obvious from the amendment of her health, and the cessation of the painful local symptoms. This wound was kept open for three months, at the end of which time she was sent to the sea; the peas were then discontinued, and the issue healed.

I saw her immediately on her return, when there was evidently an abscess formed in the hip: this suppurated and burst spontaneously, discharging for a long time, without injury to her constitution. The joint is ankylosed, she walks resting on her toes, but is otherwise perfectly well.

CASES VII. AND VIII.

Two Cases of Disease of the Hip Joint occurring in the same Family.

THE following instances of disease of the hip joint, were obviously the same, but the mode of treatment were different. In the first the most active means were used to resist the progress of an external suppuration, and the event was successful. The second case was left entirely to nature, and the result was unfortunate. They were both seen in the progress of the complaint, by Mr. Hodges, apothecary in Margaret Street, and were occasionally visited by me.

A boy of fourteen months old, received a fall, which did not appear at first to produce any important consequences : at the time when he might naturally have been expected to have walked alone, a lameness was observed, and he was committed to the care of surgeons of eminence, the means used
for

for his relief, were leeches applied to the hip, repeated blisters, and an issue made by caustic: an external suppuration however ensued, and the boy gradually recovered with the disadvantage of a shortened limb, and an ankylosed joint. At this time, he is fourteen years of age, he has been well for several years, walks without a stick, resting principally on his toes, he rides on horseback, and is in perfect health: it is observable in this case, that when in progression, he puts forward the shortened limb, the motion evidently originates from the lumbar vertebræ, which, as he walks, are raised forward, to give a progressive motion to the ankylosed limb.

I was called upon to see the brother of this young gentleman, five years of age, with every symptom of a rapid advancement of caries in the hip joint; he was pale and languid, the limb was wasted, and elongated, and the pain in the knee violent. I recommended those means, which had been successful in the former case, but was not
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fortunate enough to prevail on the parents to adopt my opinion. They seemed to impute the shortening of the limb in the former case, to the remedies employed, rather than to the destructive nature of the disease. I saw this patient, eight months after, and found that a suppuration had taken place, under which the child languished for several years, and died.

CASE IX.

An Abscess of the Hip Joint, terminating in Anchylosis.

THE case represented in the fourth plate, was one of the first, which occurred in my practice. I did not see the patient, during the first attack of the complaint, but was sent for, upon a suppuration taking place in the hip; he was twelve years of age, and had been in other respects healthy. The disease was managed in a very simple manner, the suppurations repeatedly burst, he was
 much

much reduced in his general state of health, and received great benefit from the peruvian bark. He recovered from the complaint, with a stiff joint, and died three years after, from the confluent small pox. I obtained permission to open the body, and preserve the anchylosed joint.

The anchylosis of joints is often considered to be a disease of itself, although it will be found more generally to be a natural and beneficial termination of caries; excepting in those cases, where it is occasioned by strong contraction of muscles, without any previous indisposition of the bones: anchylosis is however less frequently produced by muscular spasm and contraction than by coalescence of ulcerated surfaces of cartilages and bones, and this is an union, which it would be absurd to counteract, as it is indispensably necessary in many cases, to the preservation of the limb affected, and in the abscess of the hip joint, it is the only means of preserving life; in the incurvated carious spine, the cure

is performed by anchylosis ; the cure also of carious joints in the upper extremity, and in other parts, is frequently effected in this mode, without any assistance from art.

In such cases, a great degree of precision is necessary, in order to ascertain, in the first instance, whether the joint has suffered that degree of abrasion, which must finally prove fatal to its motion. If such an event has decidedly taken place, a very particular management of the diseased joint should be pursued : nature must be left undisturbed, by officious and useless interpositions, much of the formidable apparatus of surgery may be omitted ; a cautious practice should take place, with respect to fomentations, poultices, frequent dressings of the wound, pressing out the matter from the fistulous sinuses, and the examination of them by the probe : and above all, particular care should be taken, not to rub against each other, the abraded surfaces of the diseased bones, in order to ascertain to our own minds, or to demonstrate to the conviction of others, the existence

ence of caries, and to attempt the preservation of motion, when it is perhaps, impossible, even to try the experiment, without the destruction of life. Such a treatment should be discarded, as tending to frustrate the only means, by which the condition of the parts can be improved. I wish I could say, that I had seen but a single instance of the necessity of amputation, produced by rough and injudicious handling of diseased joints: in the early attacks of scrophulous caries, frequent or violent motion is likely to cause abrasion of the internal surface of joints; in the more advanced stages, when abrasion has taken place, it necessarily excites suppuration, and thereby prevents anchylosis.

CASE X.

THE case represented in the fifth plate is such as frequently occurs; I have no account of its particulars, having met with
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the bones accidentally; it shews the head and neck of the thigh bone partially destroyed, and the cotyloid cavity quite obliterated; it also manifests the precarious and insecure connexion, which these bones are liable to form from disease, and consequently presents to the eye of an attentive observer, the cause of the weak and paralytic state of the limb, which sometimes remains, when the dangerous symptoms of the disease are passed over, differing widely from the firm ankylosis, exhibited in the fourth plate. It shews also a lateral incurvation of the lower part of the spine, and a contraction of the superiour aperture of the pelvis, both of which circumstances were probably brought on, by the weight of the trunk bearing unequally on the os sacrum.

CASE XI.

Instance of Caries of the Hip Joint, followed by large Suppurations, finally terminating in an anchylosed Joint.

JAMES MIDDLETON, at No. 14, Little Russell Street, Bloomsbury, a boy of fair complexion and light hair, born of healthy parents, in the fifth year of his age met with a slight accident, which was not much attended to, till he was observed to walk lame. Various means were adopted for his relief, and amongst others, he had a small issue made by caustic, in the upper part of his thigh, which contained only three peas.

When I first saw him, seven months afterwards, there was a large abscess formed, extending from the os sacrum behind, to the trochanter major, the limb was shortened and emaciated, and his general health was very much affected. The abscess

soon after burst, and he was confined to his bed, from weakness apparently produced by the copious discharges of matter, from repeated suppurations, which continued successively for eighteen months, and during this time, he was the most emaciated object I ever saw, the pain in the hip being so excessive, that it was scarce possible to move him in the bed; his diet was animal food, strong broths, and porter, all of which he eagerly solicited; he received much benefit from the peruvian bark, of which he took large quantities in powder; at length he began to recover, the discharge of matter decreased, the pain abated, and he became capable of being moved in the bed with less pain. He has since regained his general health, and walks with the assistance of a high-heeled shoe, and a crutch stick; the joint of the thigh is ankylosed; and as he walks, the progressive motion is evidently produced, by a flexion of the inferiour vertebræ of the back, and the superiour lumbar vertebræ; these seem to bend forward in walking, and

to

to carry with them the os innominatum, and the thigh bone, which are now clearly in a state of coalescence.

On the 2^d of March 1793, this boy fell down, and broke the thigh bone, two inches below the trochanter. The ankylosed joint was not injured, or in the least affected by the accident, from which he perfectly recovered in the usual time.

CASE XII.

Disease of the Hip Joint, where the Symptoms disappeared without any external application, or the use of any internal Medicines.

J. NEILD, son of Mr. Neild, apothecary, in Short's Gardens, St. Giles's, was without any previous indisposition, attacked with lameness in the right leg; he was of fair complexion, six years of age, and apparently healthy; the limb was elongated, and wasted, he walked very lame, had confide-

rable pain in his knee, and thigh, and suffered a little from general indisposition. No kind of medical, or surgical treatment was employed, his general state of health soon after improving, without the use of internal medicine or external application. I saw him frequently, during the continuance of his complaint, from which he is now recovered: the limb is shortened, the trochanter is very prominent, he halts a little in walking, but has not undergone any of the dangerous and painful symptoms, which are usually subsequent to this attack.

CASE XIII.

An Abscess from Caries of the Hip Joint, where the Wound healed without any difficulty; the Patient remaining in good Health, with the Inconvenience only of a Stiff Joint.

THOMAS HODGKINSON, a boy of eight years of age, was recommended to the
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Westminster General Dispensary on the 9th of November, 1790. He had had the small pox four years before, and soon after, without any previous accident, he was observed to walk lamely and unsteadily; he afterwards complained of violent pain in his knee, and the limb became elongated; when I first saw this patient, there was a large suppuration formed on the outside of his thigh, although he was in other respects perfectly well, being free from any symptom of general debility; the abscess soon after burst, and healed in a few months: he has since continued in good health, the joint is ankylosed, and the limb is somewhat shortened. He walks without a stick during the whole day.

CASE XIV.

A diseased Hip Joint, terminating in Contraction of the Limb, and Anchylosis of the Joint, without an external Suppuration.

THE following case was seen, and principally attended to by Mr. Woan, surgeon, in Mortimer Street.

Master W——, born of healthy parents, a lively boy, of fair complexion, was in the full enjoyment of his health until the age of four years, when he had a fever, and afterwards the hooping cough, from which recovering slowly, he was sent to Bright-helmstone for the benefit of the sea air, and returned perfectly recovered. In the winter of 1789, he received a fall by sliding on ice, but did not seem to be materially hurt by it, as he walked home, and in the afternoon, walked again the distance of half a mile to his school. He did not complain much at that time, but a few weeks afterwards,

wards, he was attacked by the measles, and soon after his recovery from that disease, he began to limp, discovering some of the first symptoms of diseased hip joint, namely, an elongation of the limb, a pain in his knee, weariness, and some degree of general debility. In the summer of 1790, he was again sent to the sea, and bathed for four months; he returned from thence with the disease going on in its usual way, the thigh bone shortening, great pain in the hip and knee, and a total inability of setting his foot on the ground.

Topical bleeding by leeches, and a repeated application of blisters, prevented an external suppuration, which was rapidly advancing. This young gentleman had a very troublesome enlargement of the tonsils, which occasioned a deafness, an uneasy respiration, and some difficulty in deglutition; these circumstances induced his parents to send him once more to the sea, from which he returned without any considerable advantage to the disease of the hip joint, although the tonsils were much reduced, and consequently

his respiration was become easier, and the difficulty in swallowing removed. They now determined to rest his cure, entirely on strict attention to his general health, to forward which, they put him to school, in a healthy situation near London; he was directed to support himself thoroughly on his crutches, and to bear as little as possible on the diseased limb.

On the 29th of January, 1794, he is daily mending in his health, he stands erect on his crutches, grows taller, and the ankylosis of the joint seems nearly perfect. He can support himself, resting his weight on the sound limb, and on the toes of the other; when he walks, the progressive motion of the trunk, seems to be effected by a flexion of the whole body upon the thigh joint of the sound side, aided by a greater degree of motion in the lower vertebræ, than usually takes place in subjects free from this complaint.

CASE XV.

THE following case of disease of the hip joint is not yet completely cured, but I thought it deserved particular notice, as it is the only one, which has occurred to me, where a suppuration took place, and the matter afterwards disappeared, during the use of an issue made by caustic, and a great degree of rest*, which became unavoidable from the extreme weakness of the patient, and the absolute inability of motion in the part affected.

J. Rand, a pale emaciated boy, of seven

* In Mr. Justamond's works, p. 125, a remarkable case is related of a disease of the lumbar vertebræ, in consequence of which, an abscess formed in the groin under Poupart's ligament. This tumour continued of a large size for four months, and then gradually disappeared without any surgical treatment; the patient was confined to his bed for twelve months, and at the end of that time recovered perfectly.

years

years of age, was recommended to the Westminster General Dispensary, in April 1793, for the disease of the hip joint; his general state of health was very indifferent, and he complained of great pain in his knee, thigh, and hip: the limb was shortened, and contracted upward to the abdomen; and on the outside of the thigh, over the vastus externus muscle, there was a swelling which evidently contained a fluid: this tumour was not however very prominent, or painful to the touch.

Notwithstanding the little chance of success, likely to be derived from the use of the caustic in this case, I applied it in the usual manner, and his mother kept the issue open with great perseverance; the boy however, grew worse in his general state of health, the limb became more shortened; he was confined entirely to his bed for the whole summer, labouring under the most profuse perspirations, frequent purgings, and extreme debility; in this state he was nourished with strong soups, meat and porter, for
all

all of which he was frequently calling; bark and opiates were also of great advantage to him.

At length, when he began to regain some strength, and by degrees to turn in the bed, I had the pleasure of finding the collection of fluid entirely absorbed. The limb now grows stronger, he can put his toes to the ground, and in moving his body, the diseased joint, by the assistance of his hand moves with it. Symptoms of amendment continue daily, but still the event of the case may be considered as doubtful, the ankylosis is by no means completely formed, the patient is highly scrophulous, he lives in a close damp apartment, and the approach of winter may probably excite the strumous diathesis in the habit, and consequently exasperate the local complaint.

Nov. 1, 1793.

After having enumerated several cases, where the event was not wholly unfavourable: it is but fair to acknowledge, that I
 have

have seen instances of this disease, which have terminated fatally, where the caustic had been applied; but this has happened, for the most part, if not always, where the application was deferred until the limb was shortened, and contracted, and an external suppuration was evidently approaching, before the caustic was applied. I have also seen some cases, where the abscess has been suffered to burst spontaneously, and where a cautious management of the disease, has been in a great degree adopted, yet the patient has finally fallen a victim to the violence of the disorder.

But among all such instances, I do not recollect a single one, where some considerable error had not taken place, in the management of the case, with respect to medicine, diet, or exercise, or, that might not be fairly ascribed to the patient's having unavoidably been subjected to a close and confined situation, where the advantages of a healthy atmosphere, and a free circulation of good air, the most essential requisites to

reco-

recovery, were totally wanting. In one case, to which I particularly attended, the patient was highly scrophulous, and for two years before his death, was lodged in a cold and damp, subterraneous apartment. Another unfortunate case is the subject of the following narrative.

CASE XVI.

Fatal Instance of Caries of the Hip Joint.

ANTHONY MYHILL, eleven years of age, was recommended to the Westminster General Dispensary; his parents were both apparently healthy, and he had not been subject to any particular complaint, till he was eight years of age, when he was supposed to be affected by worms. I was informed that in the year 1790, he lost the use of one of the lower extremities, for some weeks, which he afterwards recovered, as it was said, by means of electricity.

When I first saw him, the limb was wasted
and

and beginning to shorten, he felt great pain in the hip joint, and was unable to walk. I made a large issue, with the caustic, and saw him several times afterwards, when he appeared to be much relieved from pain; a suppuration nevertheless ensued, and he lay for many months an emaciated object, and it was with great difficulty, that he could be moved from the bed. At length he died, and I was desired to examine the body.

The sixth plate shews the morbid state of the bones in this subject: the head and great part of the neck of the thigh bone were obliterated; the cotyloid cavity was thoroughly diseased, the caries extending from thence, to the os pubis, ischion, and even to the spine of the os ilium; I found when it was too late, that for several months previous to his death, he had been lodged in a cold and damp place in Lambeth Marsh, and that his parents had been persuaded to keep him to a low diet, principally of milk, and vegetables, although he was calling perpetually, for animal food and porter.

CASE XVII.

Disease of the Hip Joint, where the Anchylosis being disturbed by external Injury, a Suppuration in the Joint came on, which soon proved fatal.

ON the 14th of December, 1781, I examined the hip of ——— Roberts, a boy, twelve years old, who died the preceding day, in consequence of a fever, which seemed to have been produced by a fall, which he had received a fortnight before.

I had seen him several times in the course of the two preceding years, he had the usual symptoms of elongation of the limb, and the pain in his knee; for some time before, the limb had appeared to be contracted, and an anchylosis seemed to be forming in the joint; his general health was mended, and he was daily sent to a school in his neighbourhood, where he met with the accident. I saw him a few days before he died, there was a ten-
 sion

sion upon the integuments of the diseased part, but no apparent fluctuation of matter. I obtained leave to examine the body and in cutting into the joint, there were two large spoonfuls of matter discharged from the cotyloid cavity; the head of the thigh bone was entirely wasted, the cavity of the joint was carious, and filled up with fungous flesh, intermixed with bony matter.

The foregoing case naturally proves the necessity, of using the greatest degree of caution, in the management of patients whilst an anchylosis of the joint is forming, and particularly of guarding, as much as possible, against every situation and circumstance likely to expose the limb to injury, before a firm union has effectually taken place.

CASE XVIII.

An Instance of Caries in the Hip Joint, which after eighteen years continuance proved fatal, from the Patient's Irregularity of Living, and from his laying aside his Crutches, before an Anchylosis was perfectly formed.

B——. **G**——, a strong and healthy looking young man, twenty years of age, consulted me, on account of a sinuous fore in the hip. The particulars of his case were, that in his infancy, his hip was said to be dislocated by accident; from that time he had been subject to suppurations about the hip joint, which had frequently given him much trouble, although they had always finally healed, with the inconvenience only of a small fistulous fore; he had constantly walked with crutches till within the last year, when he left them off, and attempted to walk with a stick. The motive of his consulting me, proceeded from the limb becoming weaker, the discharge from

the fore increasing, and his general health being considerably impaired.

I soon convinced him of the impropriety of laying aside his crutches: the weight of the trunk, which was considerable, as the patient was inclined to corpulency, pressed too much on the diseased joint; he therefore resumed his crutches, used sea bathing, and in three months was much recovered. In the course of the two following years, this unfortunate young man contracted a habit of drinking spirituous liquors, the disease of the hip joint was again troublesome, and at last proved fatal.

The reflections, which this case suggests, are obvious; it manifests the great danger of pressure on the joint, before the ankylosis is completely formed; it shews likewise the dreadful consequences of an improper mode of living, under the predominant influence of a strumous affection: the disease in the above instance, as in many others, might probably, have terminated favourably, for the patient was in possession of youth,
and

and strong stamina of constitution in respect to his vital organs, but unhappily contracted the destructive habit of drinking spirits, a custom, which appears in some constitutions to produce a stumous habit, and seldom fails of rendering fatal, many stumous diseases, which otherwise might have been palliated, or even cured effectually.

CASE XIX.

A Case of Caries in the Hip Joint, during the progress of which, the Patient died of a Hydrocephalus internus.

RICHARD PULLEN was recommended at the age of two years, as a patient to the Westminster General Dispensary. He was of a fair complexion, born of healthy parents, remarkably strong in the first year of his life, so as to walk alone in the eleventh month. At the time I saw him, he had

been lame for four months, the lameness having proceeded from the small pox. The diseased limb was visibly shorter than the other; as he laid upon his belly, the thigh could not be drawn backwards without great pain: the hip was swelled, and projected outwards, the integuments appearing rather tense, on the outside of the thigh near the great trochanter; he had also a difficulty in voiding his urine, which was sometimes purulent.

I made an issue by caustic, in the usual place, not however, entertaining much hopes of relieving him. He was easier for some time, but in the course of three months an abscess formed, and burst; he was supported by proper diet, and by bark, and appeared to be gaining strength, when he was attacked with restlessness, and vomiting, succeeded by constipation of the bowels, dilated pupils, convulsion, and stupor; symptoms clearly shewing a hydrocephalus internus, which soon after proved fatal.

I opened him, and found three ounces of
water

water in the ventricles of the brain, the sutures of the skull not being closed; with regard to the hip joint, the cartilage of the thigh bone was abraded, the cotyloid cavity considerably diseased, that part, where the ligamentum teres is attached, being almost corroded through the substance of the bone. In another part of the cavity nearer the foramen, the head of the thigh bone seemed to be in a process of uniting itself, to the acetabulum coxendicis, where, an useful anchylosis might probably have been formed, if the child had survived the hydrocephalus.

CASE XX.

THE following narrative is taken from that valuable collection of Greek surgery, published at Florence in 1754, by Antonius Cocchius; it is extracted from a note, wherein the editor remarks upon a passage of Aesclepiades, in order to shew the attention of that celebrated physician to diseases in general, and

particularly to the complaint of the hip joint. Afclepiades, who appears to have written some commentaries on the works of Hippocrates, which are now almost totally loft, fays, “ That he had met with two patients, “ labouring under this difeafe, one of whom “ was a native of Paros, who had neither “ been thrown down, nor bruifed, yet the “ difeafe beginning with a pain in the lower “ extremity, he was confined to his bed for “ three months, the head of the thigh bone “ being finally thrown out of its proper fituation.”

The other cafe which occurred to him, was that of a player, to whom the fame circumftance happened, the head of the thigh bone being removed from the cavity of the joint, without external violence.

Cocchius fays, “ Thefe cafes of difeafe of the hip joint being very rare, it fhews, that Afclepiades employed himfelf for a long time in vifiting patients. I had once, fays he, an opportunity in the year 1745, of opening a man who died of the hip difeafe, in whom the

the

the head of the thigh bone was removed from its proper situation. The name of the patient, who was a fervant of mine, was Dominico Palatio; his right leg had been weaker than the other, from his infancy, and seemed longer, so that in walking he appeared to go rather lame.

When he was thirty-three years of age, he fell from his horse, and his right thigh was crushed upon the ground, but not so much hurt, as to prevent him from finishing a journey of two days on horseback. He remained well for two months, but having another journey to perform in the month of January, he was suddenly seized with a violent pain, from the hip to the sole of his foot, as he got off from his horse, and walked in heavy boots. This pain gave way in some measure, but never entirely left the joint of the hip; he went through his usual business in the day, without much inconvenience, but towards the evening, the pain and weakness returned; so that at the end of the month, he could neither walk,

nor stand. When he was in a horizontal position, there appeared no swelling, but upon attempting to raise his thigh, he was instantly seized with an acute pain in the hip. The diseased limb, was now an inch longer than the other, the thigh was wasted, and he had no power of raising it, although the rotatory motion of the limb still remained.

A slow fever soon came on, attended with an atrophy of the whole body, and at the end of a month, a large tumour shewed itself on the outside of the thigh, below the great trochanter, not painful to the touch, but evidently containing a fluid. This tumour matured slowly, although proper applications were used to hasten its suppuration. In the latter end of April, it was opened by incision, and a small quantity of thin inodorous matter was discharged: the wound was fomented, and otherwise attended to for a long time, it sometimes appeared clean and healthy, at other times foul and putrid.

At the same time, he seemed to raise his
leg

leg with more facility, but soon after, a fever came on, attended with shiverings, and a considerable swelling took place on the hip, and in the groin; the foot also swelled, the leg became incapable of motion, and from being longer than the sound one, it was now shorter. A quantity of matter issued from the wound, which diminished the tumour, and a globular hard substance was perceived in the groin, which was conjectured to be the head of the thigh bone. Matter continued discharging daily, either spontaneously, or from pressure; at length it lessened in quantity, the ulcer became white and dry, the patient sunk under extreme weakness, and at last died from a slight inflammation in the lungs.

The dissection of the body exhibited to view, a quantity of matter, which filled up the interstices of the rectus and vastus externus muscle, from the hip downward to the knee. The posterior muscles, particularly the glutæus maximus, where it is connected with the thigh bone, the glutæus

tæus medius, and minimus, and all the fleshy substance from the spine of the ilium backward, behind the trochanter major, were affected by the disease, a few muscular fibres alone remaining ; so that the surface of the os ilium was entirely exposed, and apparently corroded. The head of the thigh bone, removed from its socket, lay inward, on the upper edge of the cotyloid cavity, held in that situation, by its connexion with the psoas, and iliacus internus muscle ; the capsular ligament of the joint, and the round ligament were ruptured, and dissolved into matter ; the cartilage of the head of the thigh bone, and that of the acetabulum, were corroded, and the bony surfaces were rough from caries. From all these circumstances it appeared, that the disease originated in the cavity of the joint, that an abscess formed in that part, either from inflammation proceeding from external injury, or, from the parts being from a previous scrophulous taint, predisposed to this disease.”

This case of Cocchius, shews an instance
of

of the hip disease, which frequently occurs. It holds out a proper caution to patients, who are predisposed to this complaint by a strumous habit, to avoid such situations as may expose them to external accidents, and consequently to an aggravation of the disease. It also shews, like many other cases which are recorded, the fatality of the complaint, when an external abscess takes place, and particularly, if that abscess is made the object of surgical operation.

The foregoing cases of the disease of the hip joint, were principally selected from the great variety, presented for admission at the Westminster General Dispensary: it would have been easy to have added many more, as patients labouring under this disorder, apply in great numbers, to institutions of a similar nature to that, with which I am connected, being in a great measure excluded from hospitals, both on account of the
length

length of time, which their cures require, and likewise from the indispensable necessity of having as good air, as the metropolis affords, to cooperate with, and facilitate the means used for their recovery. It has been my intention, not to obtrude a multiplicity of cases, resembling each other in their leading circumstances; they have been selected with a view of shewing the origin, progress, and termination of the complaint, its general effects when left to the powers of nature alone, and the beneficial consequences, likely to result from the efforts of medical and surgical aid, seasonably administered.

I flatter myself, that an attempt to explain the pathology of a disease, in the treatment of which, I have been long conversant, will neither be considered, as presumptuous, nor condemned, as altogether unserviceable. At all events, an endeavour to draw the attention of surgeons to a subject so important, and, to engage them to the consideration of the various means used for the relief of a disorder, so frequent in its occurrence, and

so

so pregnant with dangerous consequences, cannot be deemed an undertaking, useless in its tendency, however defective it may be in its execution. It shall certainly be my future study, to avail myself of every opportunity which may occur of rendering these observations less imperfect: but the disease itself, is so protracted in its duration, and is complicated with so great a variety of circumstances, all demanding the mature consideration of an attentive practitioner, that it perhaps requires more time, and experience to elucidate the subject fully, than can fall to the share of an individual.

It would be very desirable to know, what are the symptoms, which indicate such a happy termination of the disease, without the interference of art, as described in the twelfth case.

It would be also very fortunate, if an uniform mode of practice could be ascertained, so as to prevent invariably the calamity of an external suppuration, proceeding from caries, or strumous affection of the joint.

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To find out with certainty, the remote cause of this disease, is an object of rational and useful inquiry, as there is not in the whole circle of human maladies, one, to which there is a greater necessity of applying the common expression,

Venienti occurrere morbo.

Above all it would be of the greatest consequence, by means of frequent dissections, to fix upon true principles, the morbid anatomy of the hip joint, as well as that of every other joint in its earliest state of disease. Opportunities of investigation can happen but seldom; it is the duty therefore of every surgeon to avail himself of all those which offer. It is the misfortune of mankind, that practice is too often founded upon a vague and uncertain description of diseases, whilst labour, attention, and perseverance, might have introduced precision and certainty.

SECT. VI.

Remarks on White Swellings of the Knee, and on the Caries of the Joint of the Wrist, with Cases; to which is annexed, a Case of Incurvation and Caries of the Spine.

Observations on the Use of Caustics, in White Swellings of the Knee.

WHEN a remedy has been experienced to be productive of good effects in any one disease of dangerous tendency, it becomes the duty of the practitioner, to apply it to those, which seem to be of a similar nature, especially to such, as have hitherto resisted the usual means of relief. The white swelling of the knee is a complaint, similar to the carious incurvation of the spine, and to the caries of the hip joint: and if its progress be sometimes different, if its fatality be occasionally more obvious, whilst at other times,

times, it seems to yield more readily to the methods adopted for its cure, the reason for such diversity in its progress and event, will probably be found in circumstances attending its local situation, and not in the original nature of the complaint.

The practice of the Greek surgeons, for this disease of the knee joint, was to make topical issues by the actual cautery, and since experience has fully shewn the propriety of the revival of that practice for the relief of the carious spine, under the form of a potential cautery, carious joints in all parts of the body, and particularly that of the knee, have been again subjected to this treatment: but it is well known that the application has not been equally fortunate in this joint: an eminent physician has imputed this want of success to the distance of the part affected, from the center of the circulation*: in a paper, published in the Medical

* See Vol. III. of Mr. Earle's edition of Mr. Pott's works, p. 498.

Facts, Vol. IV. p. 158, the failure seems to be more easily explained, by stating the difficulty of applying the caustic near enough to the diseased part; proceeding on that opinion, the author directs the application of the caustic, to be made on the integuments, covering the external condyle of the thigh bone, as being most contiguous to the parts affected with disease. The result of this practice, is communicated in three cases, which, although they were not all finally successful, so as to restore the limb to a perfect convalescence, serve, nevertheless, to shew the advantage of topical issues, and particularly, the propriety of using them as near as possible, to the seat of the disease.

I have for many years applied caustics, above and below the internal condyle of the thigh bone, for white swellings of the knee, with various success; and I have remarked, where this plan disappointed my hopes, and where a suppuration of the joint took place, notwithstanding this mode of treatment,

ment, that the inflammation has in almost every case arose, and that the matter collected, generally made its way outwards, on the external side of the knee; observing this fact repeatedly, I was led to conceive, that the caustic, in the manner I used it, checked the progress of the disease as far as it had influence, but, that its influence was not sufficiently powerful to pervade the whole cavity of the joint.

Since the publication of Mr. Crowther's paper, I have, in a bad case of white swelling of the knee, made two large eschars, above and below the external condyles of the thigh bone, in addition to two others, which I had before made with the lapis infernalis, on the inside of the joint; the patient soon felt a suspension of pain, and some abatement of the swelling, from this application, and the progress of cure appears to be going on favourably.

But it may be apprehended, that there are other very material circumstances, which operate to the disadvantage of this remedy,
when

when applied to the caries of the knee, or of the ankle joint, and these are, the pressure which the diseased part receives from the weight of the trunk, and the muscular motion, to which it is naturally liable, or, which it unnecessarily receives from the exertion of the patient: from these causes principally, in addition to what Mr. Crowther has suggested, may be deduced much of the ill success, which attends the treatment of diseased joints in the lower extremities. Notwithstanding these objections to its use, the application of caustics, in white swellings of the knee, is found to be a remedy of great efficacy; in many cases, it claims a decided preference to blisters, irritating plasters or sinapisms, the surgeon being enabled at the same time in which he is pursuing a rational plan, by the use of caustics, to employ other efficacious means: he is not precluded from availing himself, of the use of topical bleeding by leeches, of frictions of mercurial ointment, of fomentations of sea water, or of the solution of sal ammo-

niac, of the plaster of gum ammoniacum and squills, or even of blisters.

The cases of white swelling of the knee, in which I have found the application of caustics completely successful, have been those, which are described by Mr. Bell, as rheumatic white swellings, where there has been little, or no fluctuation of fluid, in the cavity of the joint, and no discoloration of the integuments, but where an enlargement of the knee has taken place, attended with great pain in moving the part, and sometimes a total inability of motion. In such cases, patients have often previously complained of a weakness, and pain in the joint, which has probably subsisted for a long time, coming on at intervals, increased by sudden changes of the weather, and aggravated by slight external accidents, but these symptoms having been considered as rheumatic, have not been much noticed.

In such cases, and particularly in adult subjects, when the disease has been augmented, so as to require surgical assistance,

tance, copious and repeated bleedings by leeches, and the application of caustics, have seldom failed to produce a complete cure: but when the patient was very young, and of a scrophulous habit, or when the accumulation of fluid in the joint, whether matter or glary fluid, was considerable, or when the patient, perversely, or indiscreetly accustomed himself to move the limb, in order to prevent a stiffness, or contraction of the joint, I have seldom seen more than temporary relief procured by this, or indeed by any other method: such cases have finally terminated, either in a contracted, anchylosed joint, or symptoms have come on, which have produced the unhappy alternative of resigning the limb, or giving up every hope of preserving life.

The period of life most favourable for the treatment of the white swelling of the knee, has been, as far as I have observed, in a middle state, from twenty to forty-five years of age: In very young children, a carious state of the bones, which form this joint, too of-

ten terminates unsuccessfully; the disturbance, to which the parts are liable from their natural restlessness, or from the frequent motion to which they are subjected by the officiousness of their attendants, occasions more irritation to the part affected, than adults are likely to receive, who are easily persuaded to adopt a state of quietude for the diseased limb. In very old subjects, the circulation is too languid to admit of much hopes of success: and in women, during a state of pregnancy, or of lactation, the process of cure, goes on very unfavourably.

CASE I.

A White Swelling of the Knee cured by Issues made by Caustic.

IN May 1787, John Hennis, thirty-four years of age, a tall thin man, of a fallow complexion, with dark hair, and black eyes, naturally subject to a winter cough, was recommended to the Westminster General Dispensary,

penfary, for a ftrumous enlargement of the teftis, for which he underwent the operation of extirpating the difeafed part. A fortnight afterwards, he complained of uneafinefs in his right knee, which was found to be fwelled, and painful, particularly on the infide of the patella; the leg and thigh were foon after wafed, and the knee was ftrongly contracted, with a total inability of extending the joint, or moving it, without the utmoft pain.

For a few days, I ordered it to be fomented and poulticed, but feeing no profpect of amendment, I proceeded to the topical application of leeches, which were repeatedly put on to the number of forty, and I afterwards bliftered the whole knee three times; thefe means being alfo ineffectual, I rubbed the lapis infernalis, half an inch above, and half an inch below the joint, on its internal part, fo as to produce an efchar, on the removal of which there were two large iffues capable of holding ten peas. It was remarkable, that this man felt an immediate

suspension of pain, from the application of the caustics ; after the first night, he slept well, without laudanum, although during several preceding nights, the pain had been so excessive, that it could not be palliated by opiates. Six months elapsed before he was perfectly well. He has preserved the use of his limb, so as to pursue his business, at this time, as a brewer's servant ; the issues were kept open for eighteen months, and during that time, he felt inconvenience, whenever they were neglected.

In the year 1791, the man applied again for assistance, for a chain of diseased glands in his neck, which extended from ear to ear. These swellings after a long time suppurated, and he recovered also from this strumous attack. On the 19th of March, 1792, I saw him again, and found that he remained perfectly well.

CASES II. III. AND IV.

Three Instances of White Swellings of the Knee Joint, cured by Issues made by Caustic, and by repeated Bleedings with Leeches.

IN the month of June, 1791, I was desired to see Mrs. Squires, wife of Mr. Squires, wine merchant in Catherine Street, near the Strand. She was thirty years of age, of a pale, unhealthy aspect, but had enjoyed a tolerable state of health, till she was attacked with a violent pain in her knee, in the preceding month of February. This pain had continued increasing, and when I saw her, the leg and thigh were emaciated, the knee was swelled, exceedingly painful, and contracted so much, that it was impracticable to extend it, without giving her the most exquisite pain. She had applied a variety of fomentations and poultices to the part, and used many internal medicines, without any benefit; the only resource, which she found
for

for alleviating the pain, was in large doses of laudanum. The limb could not be moved in the bed, nor could she bear the pressure of the bed cloaths on the part; there was however no fluctuation of fluid in the joint.

I ordered twelve leeches to be immediately applied to the knee; these were repeated in a few days, and afterwards a large blister was laid over the whole diseased part. This mode of treatment was continued for three weeks, during which time, there was not much remission of the symptoms, her knee remained exceedingly painful, and she could not be removed from the bed. The quantity of laudanum however, had been decreased. A plaster composed of gum ammoniacum, and the vinegar of squills, as recommended by Dr. Swedjar, was next applied to the knee; this was renewed several times, and the composition made as stimulating as possible by the addition of powdered squills: it gave much local irritation, but the knee remained equally painful, swelled, and contracted.

Two large issues were then made above, and below the knee, by pencilling the integuments with the lapis infernalis; I called upon her in a few days, and found her easier. She was now directed to keep a pillow under the knee, and to extend it as much as possible, without using violence. The issues soon discharged freely, and their surfaces were frequently sprinkled with powdered cantharides; I attended her for four months, and had the pleasure of seeing her perfectly recovered.

She applied, during my attendance upwards of five hundred leeches to the knee, and to the discharge of blood, procured by them, she attributed her recovery. Whenever she felt any increase of pain, recourse was had to this mode of bleeding, which always relieved her. The issues were kept open for a year afterward; in December, 1792, they were dried up; she has now the perfect use of her joint, and is able to walk several miles in the day.

Mrs.

Mrs. Roffe, wife of Mr. Roffe, timber merchant, in Princes Street, St. Ann's, Soho, had for some years been subject to a pain in the knee, which was increased on every change of the weather, after undergoing any uncommon fatigue, or meeting with an accidental fall, to which the weakness of the joint made her very liable. She sent for me in December, 1791, at which time, the complaint was growing much worse, she could not stand on the limb, it was extremely painful, and much contracted, and every effort to extend it, produced a considerable increase of pain. The limb was wasted, above and below the part affected, but her health in other respects was perfectly good.

I ordered the part to be bled with leeches, and afterwards a strong solution of sal ammoniac to be applied to it, and this treatment was continued for several days, without any visible signs of amendment; repeated blisters were also employed without any advantage. I then made two issues, as in the
fore-

foregoing case, the good effects of which, were quickly obvious, from the remission of the pain, and from the power of extending the limb being restored to her. She had more than seventy leeches applied to the knee, and recovered entirely in three months; she is at this time perfectly well, but still keeps one of the issues open.

In this case, as well as in the preceding one, very little medicine was given; the former patient was of a debilitated habit, and reaped great advantage from preparations of bark. The last-mentioned patient, was of a full, plethoric constitution, and the cure was promoted by a low regimen of diet, and the occasional use of aperient medicines.

On the 19th of March, 1790, Mary Custer at No. 20, St. Alban's Street, Pall Mall, forty-two years of age, was recommended as a patient to the Westminster General Dispensary. I was informed, that she had been confined to her bed, for four weeks, on
account

account of a painful swelling of the knee joint, which had been considered as rheumatic, and that leeches and cataplasms had been repeatedly applied to it: I found that her general health had been always perfectly good, but that for some time past she had been subject to a weakness in this joint.

This last attack had come on suddenly, after some fatigue in her business, which was that of a laundress; the knee was considerably swelled, and so irritable, that it could not be moved from the position in which it lay, without the utmost pain, nor could she suffer the weight of the bed cloaths to press upon it: if it was attempted to be raised in the most gentle manner by the heel, the pain was insufferable; the skin appeared shining and tense on the knee, and the limb was wasted both above and below the joint.

I directed ten leeches to be instantly applied, to the most painful part of the joint, and the following day it was covered with a large blister. This plan of topical bleeding
and

and blistering was continued for two months, during which time, seventy leeches and six blisters had been used; at the end of that period, I found the pain of the joint was greatly removed. The knee however, remained swelled, and was totally incapable of motion. On the 24th of May the caustics were applied as in the foregoing cases; in three days she could move the limb with some ease, and from that time, a favourable alteration was evident.

In the middle of June, she could put her leg and foot to the ground, and could bend, and extend the joint with great facility. She kept seven peas in each issue, but as the joint became stronger, she gradually lessened the number of the peas. On the 1st of August, 1792, this patient called upon me, and said her knee was perfectly well, that she could walk several miles in the day, without inconvenience, and that she kept the lower issue open with three peas only. No internal medicines were used in this case, except

except occasionally, a solution of common purging salts.

CASE V.

An Instance of Caries of the Knee Joint, cured by Anchylosis, the Limb during the Progress of the Cure, being carefully kept in an extended Position.

MR^S. MORTON, at No. 138, Swallow Street, a thin, delicate woman, thirty years of age, subject to no particular chronic disease, was seized on the 5th of August, 1789, in the night, with a violent pain in the knee, attended with a fever, which was considered as rheumatic: the following day, finding herself unable to walk, and that her knee was much swelled, she applied to an apothecary in the neighbourhood, by whose advice, she was bled in the arm, and had six leeches applied to her knee; fomentations, cataplasms, and a volatile embrocation were also used to the part affected.

On

On the 20th of August, she was recommended to the Westminster General Dispensary, and the knee was found to be considerably swelled, exceedingly painful, incapable of the least motion, or even of bearing the pressure of the bed cloaths: there was no external inflammation, but evidently a collection of fluid in the joint. I directed leeches to be again applied, and cloths dipped in a strong solution of sal ammoniac, to be constantly kept wet on the knee; gentle saline laxative medicines were also used, as she had a symptomatic fever. This method having been continued for ten days, without producing any good effect, the solution of sal ammoniac was left off, and the part was rubbed twice a day, with half a dram of the strong mercurial ointment, to which were added five grains of camphire; during this treatment, the swelling in a small degree diminished, but the pain in the joint continued.

On the 15th of September, I rubbed the lapis infernalis, above and below the joint,

so as to produce an eschar, at least one inch in diameter, and formed an issue in both places, capable of holding ten or twelve peas.

On the 16th of October, there had been no benefit derived from this management of the case, except that the fluid in the joint seemed to be in some measure absorbed. The pain in the knee was still violent, the leg and thigh much wasted, the ancle œdematous, and the slightest motion of the joint was attended with the most excruciating pain. The friction of the mercurial ointment was continued, and the issues discharged freely.

November 10th, the same plan was continued, with the occasional use of the bark, as she was inclined to colliquative sweats at night. The limb began to contract with the knee bent, a position, which usually takes place in the white swelling of this joint; she kept it however, resolutely extended, counteracting the tendency to flexion, by bolsters placed underneath the knee.

On

On the 20th of December, the swelling of the joint was abated, her general health was much mended, the limb was still wasted, but by grasping her thigh with both hands, it was found that she was capable of moving the whole lower extremity; the foot was affected by this motion, being turned inward or outward, as she directed the rotatory motion of the thigh, a proof, that an anchylosis was forming in the knee joint; she continued to preserve a horizontal position, and to keep the limb steadily extended.

On the 18th of January, 1790, she attempted to get out of bed, but in consequence found the knee much worse, and the symptomatic fever renewed.

Being now sensible, that her cure depended principally on rest, she lay quietly for two months longer, at the end of which period she was occasionally taken from the bed, but many months still elapsed, before her limb was in the least serviceable. She walked afterwards for eighteen months with crutches, and her recovery seemed to be re-

tarded by some unfortunate circumstances. The husband was poor, and his distress obliged him to move his family to different parts of the town ; she was twice pregnant during her illness, and she observed to me, that her knee never grew stronger, when she was with child, or giving suck. She was once recommended to dry up her issues, but found the knee in consequence much weaker. She at several times applied to irregular practitioners, who advised her to endeavour to move the joint, and administered their specific oils for that purpose.

Time, however has satisfied her of the necessity of preserving the firm coalescence in the joint, which nature has formed. The limb is perfectly ankylosed, the union, between the condyles of the thigh bone and the upper head of the tibia, being complete. She is capable of walking several miles in the day, without much inconvenience, but does not yet trust herself in the street without a stick, although in going about the house, she does not avail herself of that assistance :

sistance: she is now accustomed to the inconvenience of a stiff joint, but in walking, she cannot move the limb in a plain rectilinear progression, describing as it were, the portion of a circle, much in the same manner as those do who have a wooden leg.

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*Remarks on the Caries of the Joint of the
Wrist, with Cases.*

IT has been well observed, by Mr. Justamond *, that it is one of the greatest desiderata in surgery to be able, either to assist nature in the formation of an anchylosis, or to form one by the assistance of art, where nature does not seem disposed to do it: this is a remark, to the truth of which every practitioner will accede, although the difficulty of accomplishing these objects must be acknowledged: it is perhaps easier to say, what kind of surgical practice, will not assist nature, in effecting the process of anchylosis, than to explain in what manner surgery can assist her.

The opening into diseased joints, the passing of a seton, or the injecting of fluids into their cavity, will certainly not aid the

* See Justamond's works, by Houlston, p. 229.

convalescence of the part ; the formation of anchylosis is a process of nature, in which she is herself the chief agent, in the relief of disorders otherwise incurable. But it should be observed, that anchylosis, under the usual acceptation of the word, is not to be always considered as a cohesion of the extremities of bones ; in some instances it is produced by the rigidity, or strong contraction of muscles, the bones and cartilages which compose the joint, being considered as free from carious taint ; in this view, it is of the utmost importance in surgery to ascertain the propriety of giving motion to joints, or of refraining from such attempt, where there is a disposition to anchylosis ; if this tendency be created solely by the contraction of muscles, the attempt to produce motion is obviously useful, but on the contrary, if the difficulty in moving the part, and the pain, which accompanies this endeavour, be caused by caries, it must be considered, whether every effort of this kind, does not aggravate the original disease, and
excite

excite inflammation, and the secretion of matter ; both of which circumstances have a material influence in producing an unfortunate termination of the malady. But a state of quietude in this case favours the operation of remedies, gives time for the resources of nature to take place, and even if the caries be so far gone, that ankylosis must unavoidably be the only means of cure, it suffers that natural process of the constitution to be exerted in the best manner possible.

There is no joint in the body more subject to caries, than that of the wrist ; from its situation, and from the number of small bones, which compose this joint, it is exposed to a variety of accidents, which bring on diseases of bone ; notwithstanding this propensity, it more easily admits of cure when it is affected by caries than many other joints ; it is without difficulty kept in a state of quietude, and not having any pressure to support from the trunk, the usual means adopted for checking the disposition

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sition to caries, are often successful, and even if the progress of caries be farther advanced, so that an anchylosis becomes necessary to preserve the limb, this joint, as well as that of the elbow, is easily susceptible of that advantage, and a very useful limb is often preserved, although a considerable destruction of bone and cartilage may have taken place.

CASE I.

A— **B**—, Servant to a gentleman in Portland Place, suffered a slight contusion in the palm of her hand, by bruising it with an iron skewer. She felt no immediate inconvenience from the accident, and, as there was no external wound, pursued her usual business. The following day, her hand was slightly swelled, and when I saw it, a few days afterwards, the swelling extended up the fore arm, but affected principally the wrist, the back of the hand, and fingers,

gers, which were all œdematous ; there was no tension of the skin, inflammation, or tendency to external suppuration, but she complained of a violent pain in the joint of the wrist.

Fomentations and poultices of various kinds were applied for several days, and anodynes constantly administered, but no remission of pain could be procured. Strong solutions of sal ammoniac were also used, but with no advantage, and on examining the limb, I found a crepitation in the joint of the wrist : Mr. John Howard, of Argyle Street, at this time saw the case with me, and with his concurrence, a large blister was applied round the joint. The pain was in a few days alleviated, and the swelling began to subside after the repetition of a few blisters. In about six weeks, the abrasion of the cartilages could be no longer felt in the joint, and she soon after completely recovered the use of her hand.

CASE II.

MARY JONES, thirty years of age, was admitted a patient to the Westminster General Dispensary, September 11th, 1792; she had not been subject to any particular disease, although she did not appear to have been a strong and healthy person. Her only complaint was a swelling of the wrist, attended with violent pain, and total inability of motion in that joint, and those of the fingers. The cause assigned, was a strain which proceeded from the wringing of wet linen. She was suddenly waked in the night subsequent to the accident, with excessive pain in the part, and from that time, the limb remained swelled, and œdematous from the ends of the fingers, to the elbow; this had subsisted for two months, during which time, the part had been constantly fomented, and various poultices had been applied; at length, large doses of laudanum were used, which

which were the only resource, adequate to a temporary alleviation of pain.

The first day, she was recommended to the charity, six leeches were applied to the wrist, and the following day a large blistering plaster round the joint: this did not relieve her materially, and she was obliged to continue her opiates. The violent pain she suffered, made it impossible to move her from the bed, so that the part had every advantage, likely to result from an undisturbed position.

During the course of my attendance on her, which lasted four months, I found that the swelling and pain gave way gradually to a repetition of blistering, and topical bleedings; the blisters were renewed ten times, and she informed me, that one hundred and fifty leeches had been applied; the recovery was very slow, and although at this time, which is a year since the first attack of her disorder, she has the use of her wrist, in a great degree, and can bend and extend both that joint, and her fingers in some measure, there
are

are evident marks of partial anchylosis, particularly, between the first bone of the thumb, and the wrist.

CASE III.

MARY COLLINS, servant to Mrs. Campbell, in Suffolk Street, Marylebone, sixty years of age, a woman healthy in every respect, received a slight injury in her thumb, by pricking it with a pin, as she was washing linen.

The following day, she felt a violent pain in that joint of the thumb, where the hurt was received ; the third day, the whole arm swelled, from the fingers upward to the shoulder, with violent pain round the wrist, which seemed to be principally affected. A fever came on, attended with rigors, which lasted for three days ; at this time, she had a very assiduous attendance from her apothecary, and fomentations and poultices were applied: I was desired to see the case
a few

a few days afterwards, and found the whole arm extremely swelled, painful, and totally incapable of motion. The skin was of a purple hue, and in some parts, there were vesications rising on its surface. She had a languid appearance, great dejection of spirits, and her pulse was quick and low.

From the age of the patient, and from the local appearances, there was great reason to apprehend, that a gangrene might occur. In order to obviate this, as the greatest evil, a cordial plan of diet and a free exhibition of the peruvian bark with laudanum were continued, as they had been, before I saw her, administered by Mr. Bacot, her apothecary, and a cataplasm of linseed meal was applied to the part affected. This was so far successful, that we soon had the pleasure of observing a suppuration take place in various parts of the arm. The joint of the wrist was however found, on the bursting of these abscesses, to be quite carious; the abrasion of the cartilages of the
joint

joint was indubitable, the crepitation of the bones was heard, and a total inability of motion in the fore arm was obvious. The raising it even for the purposes of cleanliness was impracticable, without giving great pain, and was therefore avoided. I considered that rest was the only mode of preserving the limb from amputation, and the patient submitted to a treatment, which was not attended with pain, easily giving up circumstances of convenience, for a prospect of permanent safety; she lay in bed for three months with her arm supported on a pillow, the external applications being retained by the eighteen-tailed bandage, by which means the upper or outer part of the arm was opened occasionally, to examine the state of the wounds, without disturbing the position of the limb, whilst the abscesses, which had burst on the internal or lower part of the wrist, were not attended to.

The result of the case was, that after four months close confinement, she recovered, with the hand entirely ankylosed in the wrist
joint,

joint, although some little motion remained in the fingers, but it was scarcely sufficient for any useful purpose. She has however, the satisfaction of having avoided an operation, which, considering her advanced period of life, and the particular circumstances of the case continually threatening a gangrene, would probably have terminated unsuccessfully. To those who attended the progress of the disease, it afforded the gratification of observing, that a carious state of the bones of the wrist, even in old age, is not absolutely incurable, and that the resources of nature in those cases, when favoured by a perfect state of rest, and aided by diet and medicine, are almost inexhaustible.

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CASE IV.

A Caries of the Wrist cured by Anchylosis, or Cohesion of the Bones, taken from Mr. David's Memoir, on the Effect of Motion and Rest, addressed to the Royal Academy of Surgery at Paris.*

“ **A** Man about fifty years of age, applied to me in 1770, with the bones of the wrist so carious, that in two or three places, one might pass a probe through them, by following some fistulous openings, that presented themselves on the outside. The wrist, and the hand which were œdematous, considerably swelled, and of a dark blue colour, seemed to require amputating so much the more urgently, as the patient was tormented with a slow suppuratory fever; it was even the advice of a man, skilful in the profession, not to defer having recourse to this last resource; notwithstanding this, I ventured to

* See Justamond's works, by Houlston, p. 200.

temporize, and after having applied the usual dressings for two days, I carefully closed all the fistulous openings, with dressings that were not irritating, and the hand and wrist being covered with compresses dipt in a balsamic and spirituous embrocation, made with the yolk of an egg, oil of roses, and brandy, I placed them in junks; the parts being thus kept in a perfect and constant state of rest, I made no scruple of leaving the first dressings on for ten days without a renewal, more especially as neither the pain, nor the discharge, required them to be removed sooner, and at this time it was curiosity, rather than absolute necessity, that was the motive for my doing it. As I found the discharge less in quantity, thicker and less fetid, than when the patient was dressed every day, I judged it proper to put off the removal of the second dressings for twenty days, and at this period, the swelling of the hand and wrist were half reduced, and every thing seemed to bespeak, as much from the patient's countenance and pulse, as from the

nature of the discharge, that hopes might already be entertained of a fortunate termination of this dreadful disease. In about two months and an half after this, these hopes were completely realized; for at this time, all the fistulous orifices were perfectly cicatrized, and the cure was terminated, with no other inconvenience to the patient, except loss of motion in the wrist, which has not since prevented him, from doing his usual work."

CASE V.

THE disease represented in the seventh plate, is a caries of the joint of the wrist, cured by the operation of nature, in uniting together the carious bones. The caries seems to have comprehended the first joint of the thumb, as well as the carpal bones, the joints of the fingers remaining free from ankylosis. I have no particular account of the complaint, but it evidently serves to shew the coherence of bones; it establishes too, the

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complete effect of that process in a very complex joint, and will readily impress the mind, with the great hazard, which this salutary effort of nature would undergo, if subjected to an injudicious interference from art.

complete effect of this injury in a very com-
 plex joint, and will readily impart the same
 with the great joints, which the ordinary
 effort of nature would undergo, or subjected
 to an injudicious interference. It is not
 easy to see, however, why the same
 and without any other cause, should be
 thus, but it is not necessary to enquire
 as to other instances of the same kind, except
 to see that the same will be found in all
 the joints of the body, and that the same
 will be found in all the joints of the body.

It is not necessary to enquire as to other
 instances of the same kind, except to see
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Case of incurvated and carious Spine.

THE carious spine represented in the eighth plate, is an instance of the powerful tendency of nature to form a coherence between the ulcerated surfaces of bones; in this case, there were ten diseased vertebræ, between all of which, the intervertebral substance was totally destroyed; several of these, were partially, or completely united by anchylosis, others had suffered more considerably from the caries, great part of their substance seeming to have been absorbed, as no sensible exfoliation had taken place, during the life of the patient; these bones are in some measure loose and detached from each other, yet from their roughness, and the rugged appearance of points, shooting out from some part of their surfaces, it is clear that the efforts of nature were strongly directed towards forming the same union which had evidently

taken place in others ; and this would probably have been effected, had it not been for circumstances, which attended the management of the disease. The patient was a tender and emaciated infant, living in a close and damp place, very unfavourable for a recovery from a strumous disease: he was frequently moved, and taken up from the bed; yet notwithstanding this treatment, he lived a considerable time, and at last died of the small pox. When he was five years of age, he was admitted at the Westminster General Dispensary in March 1789, for a carious incurvation of the spine, and it was observed, that the disease had not the usual angular incurvation, which appears when a few only of the vertebræ are affected, the whole spine being bent in the form of a bow.

Issues by caustics were made near the most projecting part of the spine, but they were of no use ; an abscess formed, which burst during the month of June following, and continued discharging till November, when he died of the small pox ; the disease in his
back

back not seeming to have any influence in the fatal termination of the variolous infection.

The appearance of this disease, naturally gives rise to a few reflections on the treatment of the carious spine; at the same time that it exhibits an unfortunate proof of the difficulty of curing this complaint by means of art, it affords the consolation of shewing the great efforts, which nature is capable of making towards the reunion of parts, separated by disease.

It shews the great mischief, which pressure, motion, or friction must create on the parts affected. It also suggests, the great probability of injury, which would arise from the use of spinal machines, were they capable of producing an extension of diseased vertebræ. To procure by sudden, or even by gradual exertions, an elongation of a carious spine, would be acting diametrically opposite to the only possible mode of relief: It would be a preposterous effort to tear away that coherence by which the cure is effected, it would tend only to a farther

division

division of parts, where approximation is principally wanting.

When the difficulty is stated of curing such a disease of the spine, as is here represented; no censure is meant to be thrown on the attempt to cure it by the use of issues, made by caustic; but from a review of the present case, it is clear, that such an issue cannot be considered as a never-failing expedient; whoever thinks, that in every case of incurvated spine from caries, he shall succeed by the most judicious application of the caustic, will find himself disappointed: it must necessarily have failed in this patient, from the great extent of the caries, unless it had been thought adviseable to have applied the caustic in several places, over the morbid parts.

Other circumstances will often occasion its failure; the caries of the anteriopur part of the body of the vertebræ, will often from contiguity affect the viscera. I have seen more than one instance, where the carious bone has injured the lungs, and rapidly produced

duced a pulmonary consumption. In very young subjects, issues made by caustic too often become useless, from the motion injudiciously given to the diseased part: in old people, they fail for want of sufficient vigour in the constitution to produce ankylosis. In subjects, from the age of twelve to forty years, they seem to be most serviceable, and particularly, where the incurvation is angular, and confined to a few only of the vertebræ; and the higher the incurvation has been in the column of bones, which form the spine, the more successful has been the use of the caustic, as far as I am enabled to judge from my own practice. In one of the worst cases of this disease which ever occurred to me, with respect to its debilitating effects, the incurvation was in the superiour vertebræ of the neck; the upper, and lower extremities both became paralytic, but the complaint was soon cured during the use of issues made by caustic*.

* See Mr. Earle's edition of Mr. Pott's works, Vol. III. p. 459.

It has happened to me so frequently, to observe, that this mode of treatment has been particularly useful in those cases, where a paralytic state of the lower limbs was added, to the other inconveniences of the complaint, that I have been induced to think, that this symptom of the disease, alarming as it is, is not altogether unfavourable towards the recovery of the patient. This circumstance indispensably compels the patient to a state of quietude and rest in a horizontal position, by which means the pressure of the head is entirely taken from the distempered bones, so that the establishment of an union between their ulcerated surfaces becomes more practicable, than it otherwise would have been, and consequently the weak state of the limbs with other symptoms of general disease, sooner disappears.

Towards this recovery, the issue made by caustic essentially contributes; it is an efficacious mode of checking an external suppuration, which would otherwise ensue from the natural progress of caries; and this is a most
 impor-

important benefit; for although such an abscess in the back, according to Hippocrates, as quoted by Mr. Pott, may relieve the paralysis of the limbs, yet it will almost constantly, lead on to hectic fever, marasmus, and death.

APPENDIX.

THE following observations were received from a friend, to whom I submitted my doubts on the translation of the fifty-ninth and sixtieth aphorisms, of the sixth section of that work of Hippocrates; they are so immediately connected with the subject of the foregoing pages, that I think no apology can be necessary for their introduction in this place: every attempt towards illustrating any passage of a writer, to whose labours mankind is so much indebted, will be favourably received by those, who know how to appreciate their value.

“ Dear

“ Dear Sir,

I was not at first aware, that there was any novelty in my explanation of the aphorism of Hippocrates, which you wish me to support: on closer examination at your desire, not finding any various reading in the original, to justify a diversity of translation, I was surprized at my disagreeing so materially with a variety of interpreters. It certainly is not in favour of my interpretation, that there are among the translators, with whom I cannot agree, several of the medical profession, who may be supposed competent to decide on the sense of an author, whose writings are peculiarly in their own line of study; I may therefore be thought to pride myself in opposing men of learning and celebrity, by contending for the propriety of a new translation; but I would fain believe that I have outlived such vanity, and having been long in the habit of judging for myself, I am certain I can differ in this, as I do in more important points, with any person
what-

whatsoever, without the slightest degree of contempt, or animosity. I proceed therefore without much concern, to state, as I think it incumbent on me, the grounds of an opinion, which I cannot see any reason to relinquish. Having no prejudicate notions on the subject, and disclaiming all pretensions to medical knowledge, I go merely on the principles of common sense; and perhaps, the determination of the true meaning of these aphorisms, may not depend so much on medical, as on critical skill*.

May it not be fairly taken for granted, from the uniform frame of man, that both the symptoms and effects of the disease, to which the aphorism refers, have ever been the same in all ages, and places of the world?

* De translatione Hipp. Aph. XLVII. Sect. V. per Almeloveen, post plerosque interpretes reddita, sic scriptum invenio; "Hoc sensu Œdipo opus est qui
" explicet." De translatione Hipp. Aph. LIX. Sect. VI. dictum puta. A. de Haen "Ratio Medendi, &c., Lugduni Batavorum 1761, p. 277. Vide ibidem p. 85, De Galeno.

Is there any reason to believe, that the human structure in general, or that this particular disease, were not the same in Greece at the time of Hippocrates, as they are in England at the present day? I have read with instruction many cases of this complaint which you have recorded; but cannot recollect a single one where you say on your own knowledge, “ That the head of the thigh bone fell out of its socket, and fell into it again, before a suppuration had taken place.”

Now although it may have happened, “ That the head of the thigh bone has fallen out of its socket, and fallen into it again,” after a suppuration; this is foreign to the purpose, for the aphorism evidently relates, and is strictly confined to some condition of the disease, antecedent to suppuration, of the certain or probable approach of which, it merely states prognostic symptoms.

If there be in your books, any case or cases of the disease of the hip joint, translated from the records of the Greek surgeons,

or

or alledged on their authorities, in which it is said, that “ The upper part of the thigh bone fell out of its socket, and fell into it again, before suppuration,” I incline, to think that such case, or cases have been translated wrong, rather than to believe, that an obvious thing happened then, which has not happened since, or at least very rarely happens now.

I shall wander no farther out of my province, but leaving all medical considerations to medical men, pass on to the examination of the original text, and propose a simple translation, which, after subjoining the reasons on which it rests, I leave to the ultimate decision of such as are more competent to dictate in points of Grecian literature, and better skilled in the subject to which the aphorism relates.

Ὀκόσοισιν ὑπο ἰσχιάδος ἐνοχλεμένοισι χρονίης ἐξίσαται το ἰσχίον, καὶ πάλιν ἐμπίπτει, τελεόσι μύξαι ἐπιγίνονται.

Ὀκόσοισιν ὑπο ἰσχιάδος ἐνοχλεμένοισι χρονίης

το ἰσχίον ἐξιστάται, τετέοισι τήκεται τὸ σκέλος,
καὶ χλωαῖται ἢν μὴ καυθῶσιν.

HIPP. APH. VI. Sect. 59, 60.

Morbo coxario diuturno laborantibus, femur exstat, et retrorsum incidit, his superveniunt suppurationes.

Morbo coxario diuturno laborantibus, femur exstat, his tabescit crus, et claudi fiunt, nisi usti fuerint.

“ In persons afflicted with a lingering disease of the hip joint, the hip stands out, and falls in behind, in them suppurations follow.”

“ In persons afflicted with a lingering disease of the hip joint, the hip stands out, in them the leg wastes, and they become lame, if not cauterized.”

I shall give the various Latin translation of these two aphorisms in the very words of the translators themselves, that if there be any inaccuracy in my rendering the sense of them into English, of which I am not sensible, it may be discovered, and rectified, by collation with the Latin originals, subjoined.

Their

Their full import, however differently expressed, may fairly be translated in this manner.

Aph. 59. When persons are distressed with a lingering disease in the hip joint, the thigh bone or the top of it falls out of its proper place, and again falls into it; in them mucous matter is collected.

Aphor. 60. In such as are vexed with a lingering complaint in the hip, the thigh bone falls out of the socket, in them the limb, thigh, or leg wastes, and they halt, limp, or grow lame, unless they are cauterized.

Aphor. 59. Quibus a diuturno coxendicis morbo vexatis, coxa excidit, et rursus incidit, his mucus innascitur.

Aphor. 60. Quibus a diuturno coxendicis morbo vexatis, coxa excidit, his crus tabescit, et claudicant, nisi usti fuerint.

Hipp. Aphor. Glasguæ. Ann. 1748,

Janfonn. Almeloveen.

Aph. 59. Quibus longo coxendicum dolore conflictatis, femoris summum coxa ex-

cidit, rursusque recidit, iis mucosus innascuntur.

Aph. 60. Quibus diuturno dolore Ischiadico vexatis, femur excidit, iis crus contabescit, et claudicant nisi urantur.

Hipp. Aph. Vorstij Ludg. Batav.

Ann. MDCCXXVIII.

Aph. 59. Quibus ab ischiade diuturno vexatis, ischium e proprio loco excidit, atque rursus incidit, iis mucosus innascuntur.

Aph. 60. Quibus diuturno ischiade vexatis, ischium excidit, iis crus tabescit, et claudicant nisi urantur.

Translatio Charterii.

Aph. 59. Quibus longo coxendicum dolore conflictatis, femoris summum coxa excidit, rursusque recidit, iis mucosa ibidem pituita colligitur.

Aph. 60. Quibus diuturno dolore ischiadico vexatis, femoris caput coxa excidit, iis femur contabescit, & claudicant nisi urantur.

Translatio Hollerii.

Whether ἰσχιας means precisely the disease of the hip joint, which is the subject of your
obser-

observations ; whether the two preceding aphorisms are to be considered as a statement by Hippocrates, of pathognomonic signs in the progressive course of the disease ; or whether the first of them, be only intended to notify two leading symptoms indicative of an approaching suppuration, or successive suppurations likely to ensue, I do not impertinently interpose an opinion : these are points I leave entirely to the determination of your profession.

It is chiefly concerning the sense of the first of the two aphorisms, namely, the 59th of the 6th Section, that I cannot help differing from the interpreters, whose translations I have not represented either unfaithfully or unfavourably ; and the following observations seem to confirm and support sufficiently, the exposition to which I am disposed to give the preference.

The readers of Hippocrates need not be told, how very laxly he uses the word *ἰσχυρόν* and for a proof of this, I refer to Foesij Oecon. Hipp. sub voce, where the rea-

der will find ample authorities for the latitude of acceptation in which I translate the word. To corroborate this translation, I likewise refer to Gorræi Opera edit. Paris 1622, p. 275, sub vocibus Ἰσχυιον et Ἰσχυιας.

It cannot be denied or doubted, that the verb ἐξισταμαι as certainly signifies extare, to “ project,” or “ stand out,” as excidere to “ fall out.” When a word has various significations, assuredly a translator has a good right to take it in that particular acceptation, which best accords with what he conceives to be the meaning of the author he translates. May I not add, that it seems probable, if Hippocrates had really meant to affirm, that the thigh bone fell out, he would naturally have employed the verb ἐκπιπρω, excidere, to “ fall out,” in direct opposition to the verb ἐμπιπρω, which he uses immediately after, in the sense of incidere, to fall in? It is readily acknowledged, that this is to be considered only as a conjecture; but medical men must not entirely set aside conjectures,

tures, for Celfus himself fays, that medicine is a conjectural art.

Readers of Greek books well know, that *πάλιν*, as certainly fignifies retro, retrorſum, and contra, “ behind,” and “ on the other fide,” as it does rurfus, and iterum, “ again.” Such as are doubtful of this, may fee in Foefius’s book above mentioned, under the word *πάλιν*, enough to warrant beyond all difpute, my tranſlation of it, which is confirmed moreover, by the exprefs testimony of Galen himſelf; and from what De Haen fays of him, Galen feems to be confidered as the beſt expoſitor of Hippocrates*.

I have, perhaps needleſſly, in aid of ſuch authorities, referred to ſome deciſive paſſages of Ariſtophanes, and Homer, where *πάλιν* is evidently uſed in the precise ſenſe I have given it in my tranſlation †.

To

* Vide A. De Haen “ Ratio Medendi, &c.” Ut ſupra, p. 85.

† Vide Ariſtoph. Aves, l. 2, and l. 648, where

πάλιν

To the rendering of the word *Μύξαι*, which I have translated *Suppurationes*, although it has various significations, there cannot I believe be any solid objection; in vindication of the sense in which I have taken it, I appeal to *Gorræus*, who expounds it in the same meaning, with regard to this very aphorism. Vide “*Gorræi Opera*,” ut supra, p. 413, sub voce *Μύξαι*.

Thus

πάλιν is unquestionably used for *ὀπίσω*, retro; edit. Rich. Franc. Phil. Brunck, 8vo. 1783.

In the *Acharnenses*, l. 1179, *παλίνορον* occurs in the same sense. I refer likewise to a Scholium in the Basil edition of *Aristophanes*, 1547, fol. p. 368, on the first-quoted passage of the *Aves*, lin. 2.

Add to all this an extract from the ingenious and accurate remarks of *Lennepe* on the word *πάλιν*. “*Ceterum propria vis hujus voculæ [πάλιν] clare sentire potest ex illo Iliad. Z. lin. 189.*

—— Τοι δ' ἔτι πάλιν οἰκόνδε ἰέσθιο.

Πάντας γὰρ κατέπεφνεν ἀμύμων Βελλεροφόντης.

Ii vero nequaquam retro domum iverunt,
Omnes enim interfecit eximius Bellerephontes.

Retro

Thus you see, that there is not a single word of any importance in the original text, which I have warped, violated, or translated at my own peril; they are rendered on good authorities. From this simple, and as I think well-supported translation, the sense and purport of the 59th aphorism, just

Retro, p. p. retrogrado motu (ut verbis utar Hoo-geveenij.) Adde imprimis Iliad. A. 380; Δ. 214; E. 257, &c.

Jno. Daniel, A. Lennep "Etymologicum Linguae Græcæ." Pars prior. Traj. ad Rhenum, 8vo. CIΩICCCXC. p. 727-8.

H. A. 380.

Χώμενος δ' ὁ γέρον πάλιν ὤχρητο·

Iratu itaq; senex retro abiit.

CLARKE.

H. Δ. 214.

————— πάλιν ἄγεν ὀξεῖς ὄγχοι·

————— retro curvati sunt acuti hami.

CLARKE.

H. E. 257.

Τέτω δ'ε' πάλιν αὐτίς ἀποίσειον ὠκέες ἵπποι.

Hos autem non iterum retro auferent veloces equi.

CLARKE.

amounts

amounts to this, “ In the course of a lingering disease of the hip joint, a standing out of the hip and a falling in behind of the nates, are signs of suppuration.”

The doctrine of your book, is therefore the very doctrine of Hippocrates. This sagacious and indefatigable observer, discovered it, and for the benefit of posterity consigned it to writing, in my opinion with the philosophical precision of a scholar, and the elegant felicity of a gentleman.

For the preceding reasons, I cannot help thinking, that there is not one of the translators I have seen, who has expressed the meaning of Hippocrates truly; but from the influence of your observations on my mind, I am disposed to believe, that the 59th aphorism will hereafter be generally received in the sense here contended for.

After what has been said in support of this translation of the 59th aphorism, it is not necessary to add any thing to obviate the objections which may be stated to my translation

flation of the 60th. Whatever militates for, or against the one, militates equally for, or against the other, and of course, both my translations must stand or fall together.

I am,

Dear Sir,

Your most obedient humble Servant,

Liffon Grove,

January 31, 1794.

J. C.”

EXPLA-

tion of the day. Whatever militates for
or against the one, militates equally for or
against the other, and of course, both my
inclinations must stand or fall together.

of which I had never before heard
of. I am,
Dear Sir,

Your most obedient humble servant,
Ligon Grove

January 20 1794
J. C.

of the world and that which
to myself in that way and
EXTRA
it is indeed a great pleasure
the services of which are the
and we are bound to your

 EXPLANATION OF THE PLATES.

PLATE I. *See Sect. I. pag. 12.*

THIS figure is intended to shew the elongation of the limb, its general emaciated appearance, the flatness of the nates on the diseased side, with other circumstances attending the early periods of the disease of the hip joint.

PLATE II.

This figure represents the limb shortened, and ankylosed, the patient having undergone repeated suppurations from a caries in the hip joint; this and the preceding figures were taken by Mr. Birnie; the first, from a patient, who is now afflicted with the symptoms of disease in the hip joint in its early state, antecedent to an external suppuration and the shortening of the limb: the other from the Case described, p. 161.

PLATE III.

The carious bones represented in this plate, were taken from the patient, whose case is related in the first Section, p. 24.

FIG. I. A. Shews a probe passed into a small hole, occasioned by caries of the cotyloid cavity.

FIG. II. B. Shews the probe passed through the cotyloid cavity, to the external side of the os innominatum, where a caries had taken place more considerable, than that in the acetabulum coxendicis.

PLATE IV.,

Represents the anchylosis of the hip joint, referred to in Sect V. p. 156.

A. The spine of the os ilium.

B. The head of the thigh bone, anchylosed in the cotyloid cavity.

C. The trochanter major.

D. Portions of diseased bone, which had united to the thigh bone, and ultimately produced no inconvenience to the patient, as he had for a long time, previous to his death, recovered from the complaint in the hip joint.

E. The

E. The ischion, and os pubis, both of which shew evident marks of having suffered great disease.

PLATE V. *See pag. 159.*

FIG. I. A. Shews the head and neck of the thigh bone, almost destroyed by caries, the remainder of the thigh bone being free from disease.

FIG. II. A. Shews the cotyloid cavity entirely obliterated.

B. The cotyloid cavity on the opposite side in a sound and healthy state.

C. The os sacrum incurvated in such a manner, as to produce a contraction of the superior aperture of the pelvis.

D. The os pubis, and ischion, shewing evident marks of having been subjected to caries.

PLATE VI. *See Case XVI. pag. 173.*

FIG. I. A. The head of the thigh bone carious, it appears rough, shooting out into small points, which might in process of time have united with the new bone formed in the cotyloid cavity, and finally produced an anchylosis, if the progress of the disease had been favourable.

FIG. II. A. Spine of the os ilium diseased.

s

B. The

- B. The cotyloid cavity, entirely destroyed.
- C. A mass of new bony matter formed in the cavity, which, like the callus of a fractured bone, would, in the course of time, have probably filled up the space, formerly occupied by the head of the thigh bone, and might ultimately have coalesced with it.
- D. Various portions of the os innominatum affected with caries.

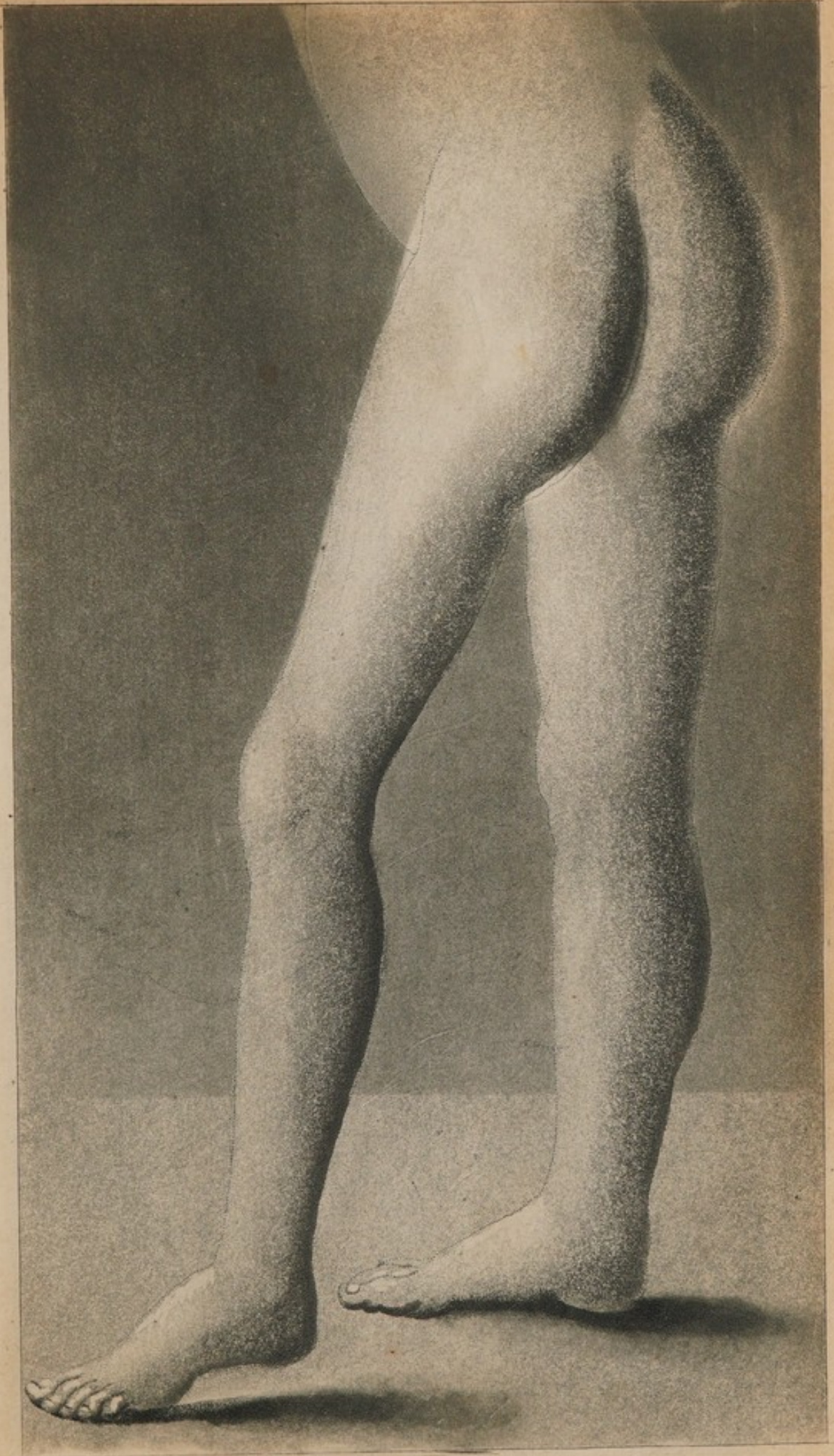
PLATE VII.,

Is intended to shew a caries of the joint of the wrist, the bones united by anchylosis: the disease is represented in two figures, in order to demonstrate a complete union of the carious joint.

PLATE VIII.,

Shews the carious spine, more particularly described in Sect. VI. p. 231.

- A. Carious vertebræ, either completely or partially united by anchylosis.
- B. Carious vertebræ disunited from each other, but evidently shewing a tendency towards a coalescence of surfaces.
- C. Intervertebral substance not affected by the disease.



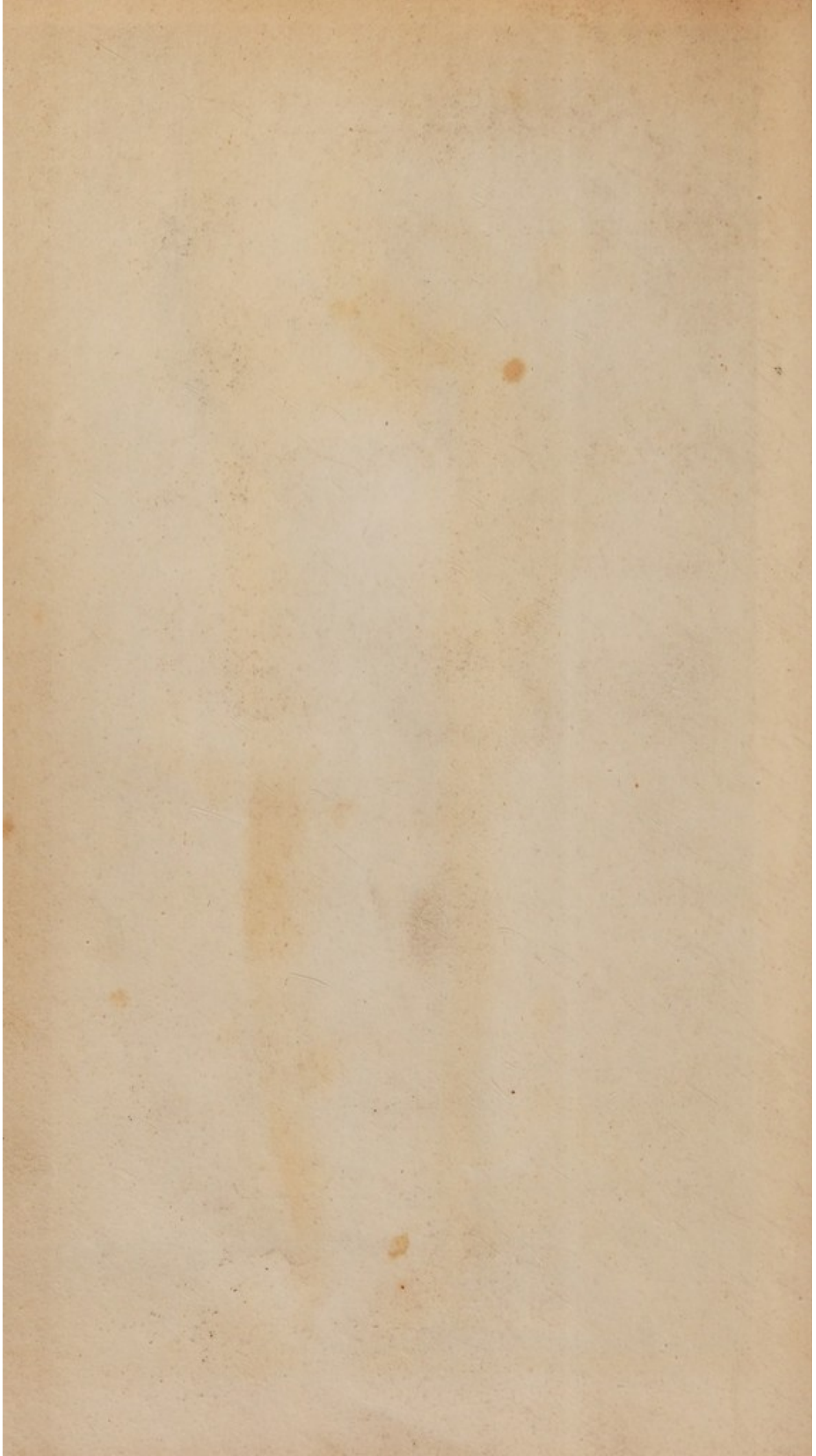




Fig. 11

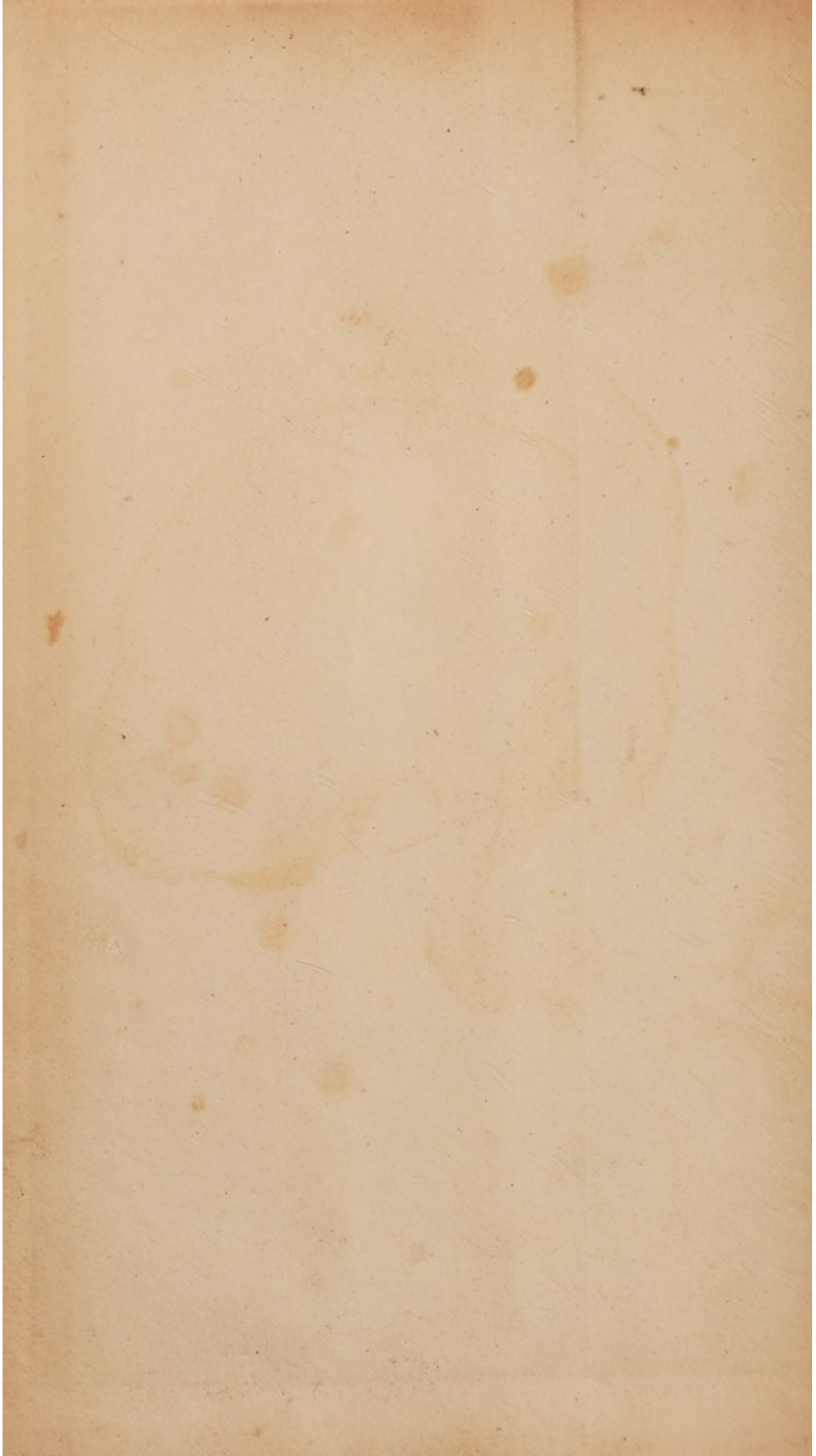
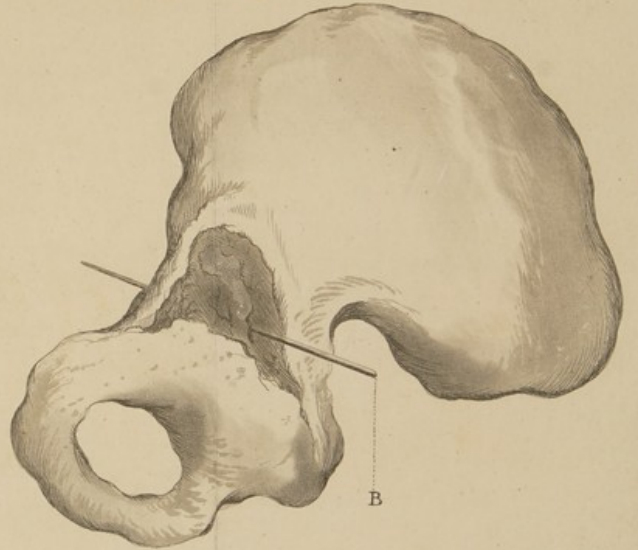


Plate 3.

Fig. 1.



Fig. 2.



Engraved by W. A. Barrow

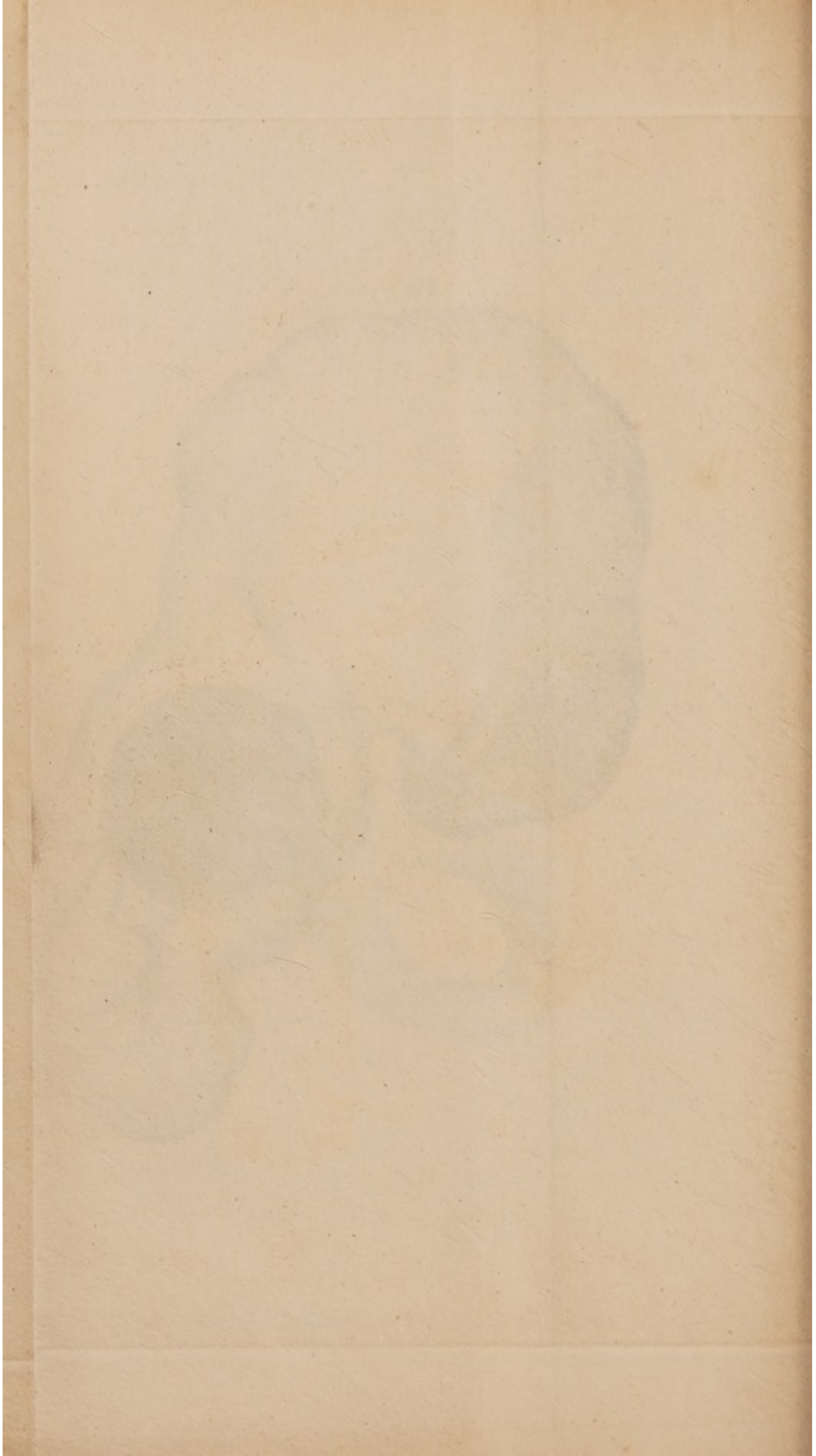


Plate 4.



Drawn & Engraved by W. A. Barrow.

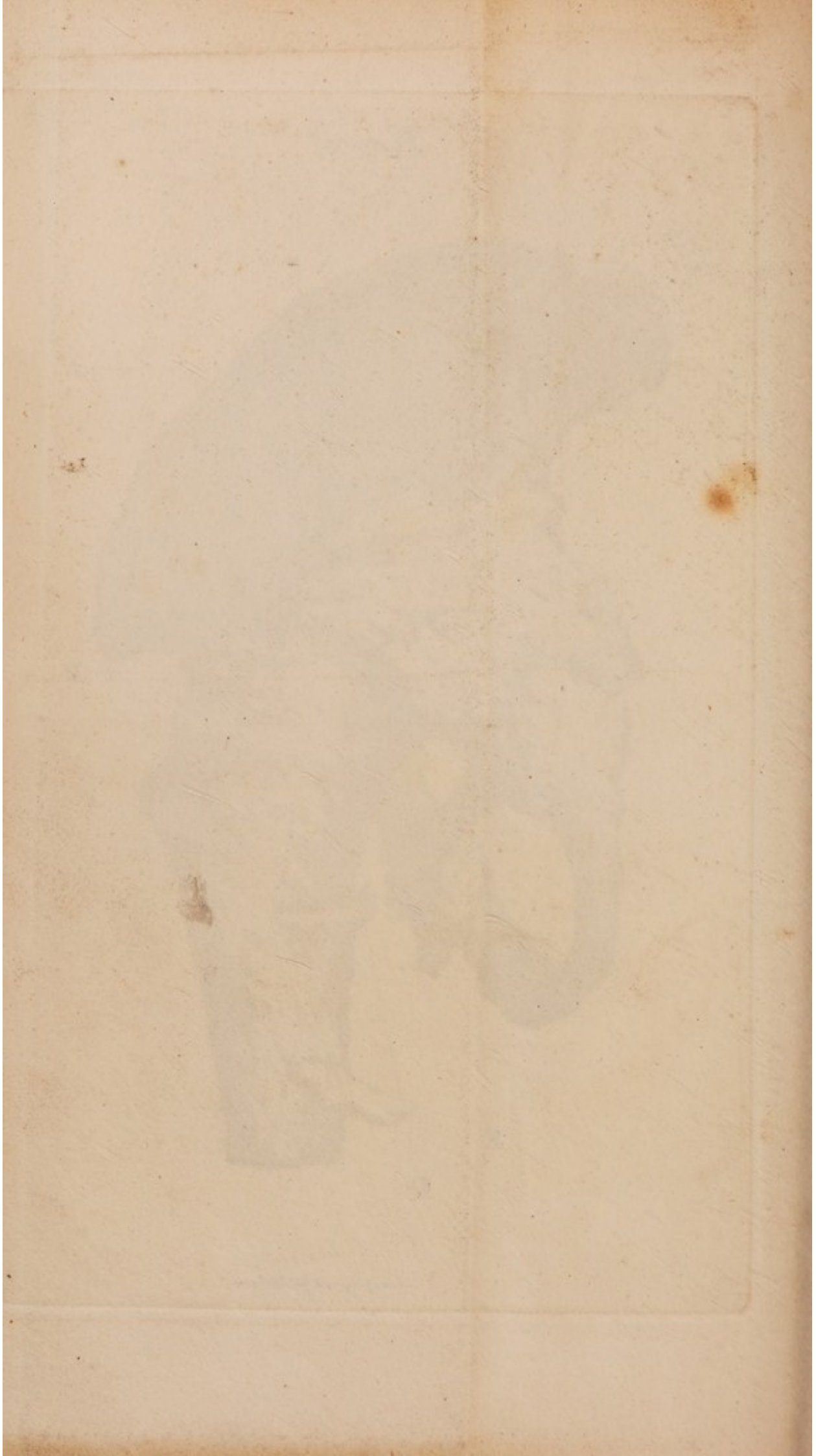


Fig. 1



Fig. 2



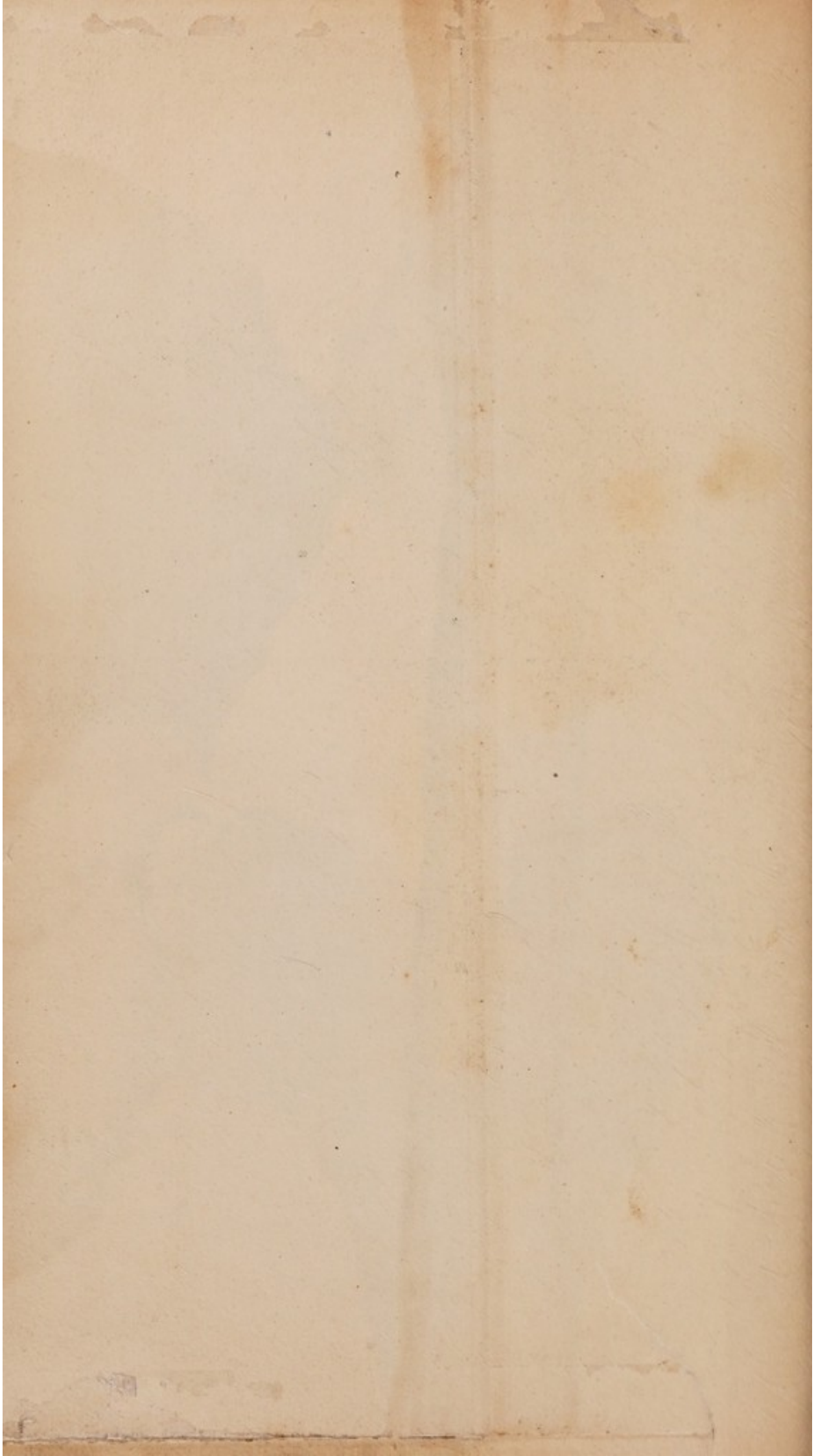


Plate 6

Fig. 2.



Fig. 1.



Drawn & Engraved by W. A. Brown

