



106

28

77968

C



(A)

Class 10 & No 28

v. 2.

Presented by

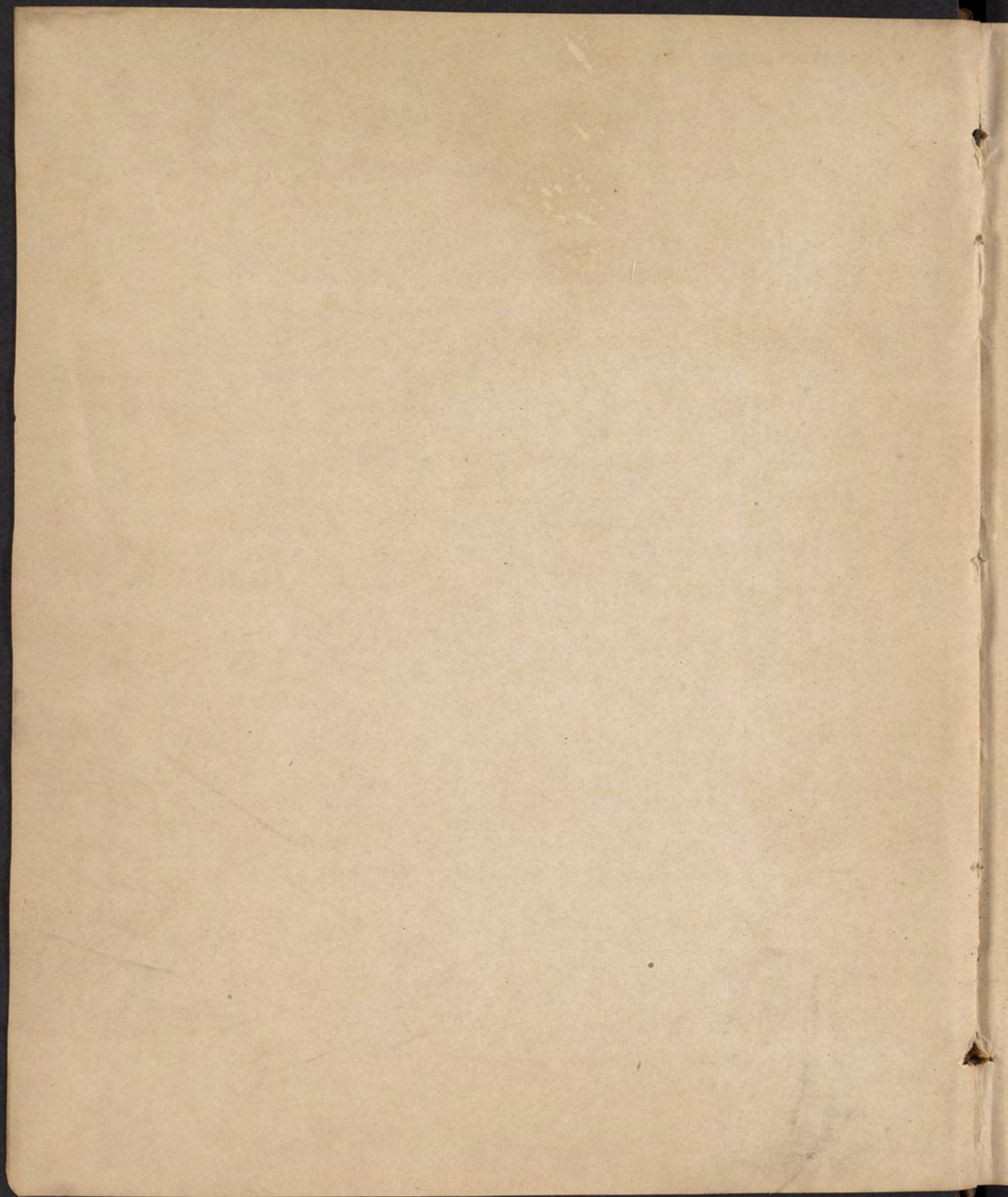
J. Parrach, M. D.

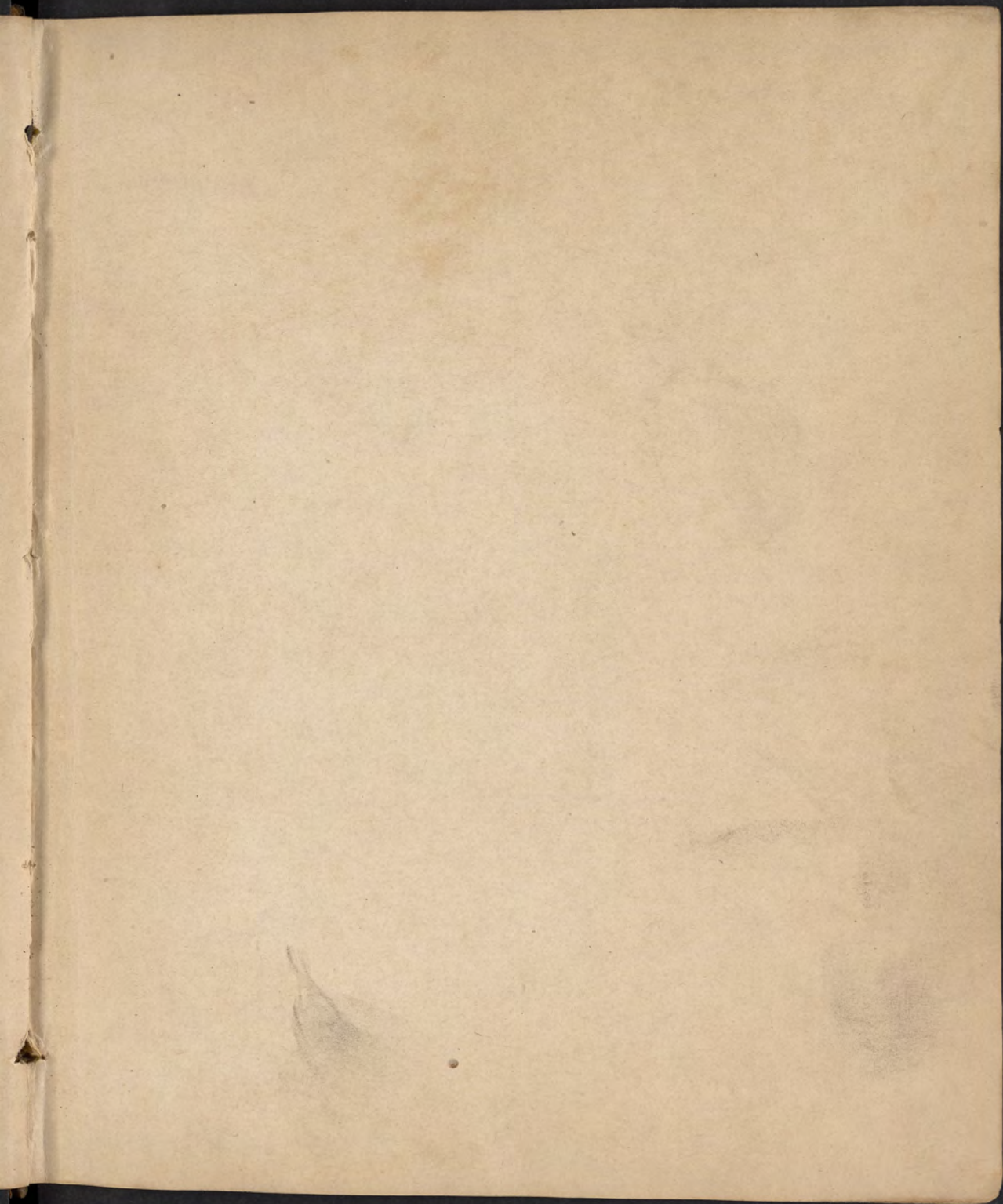
500

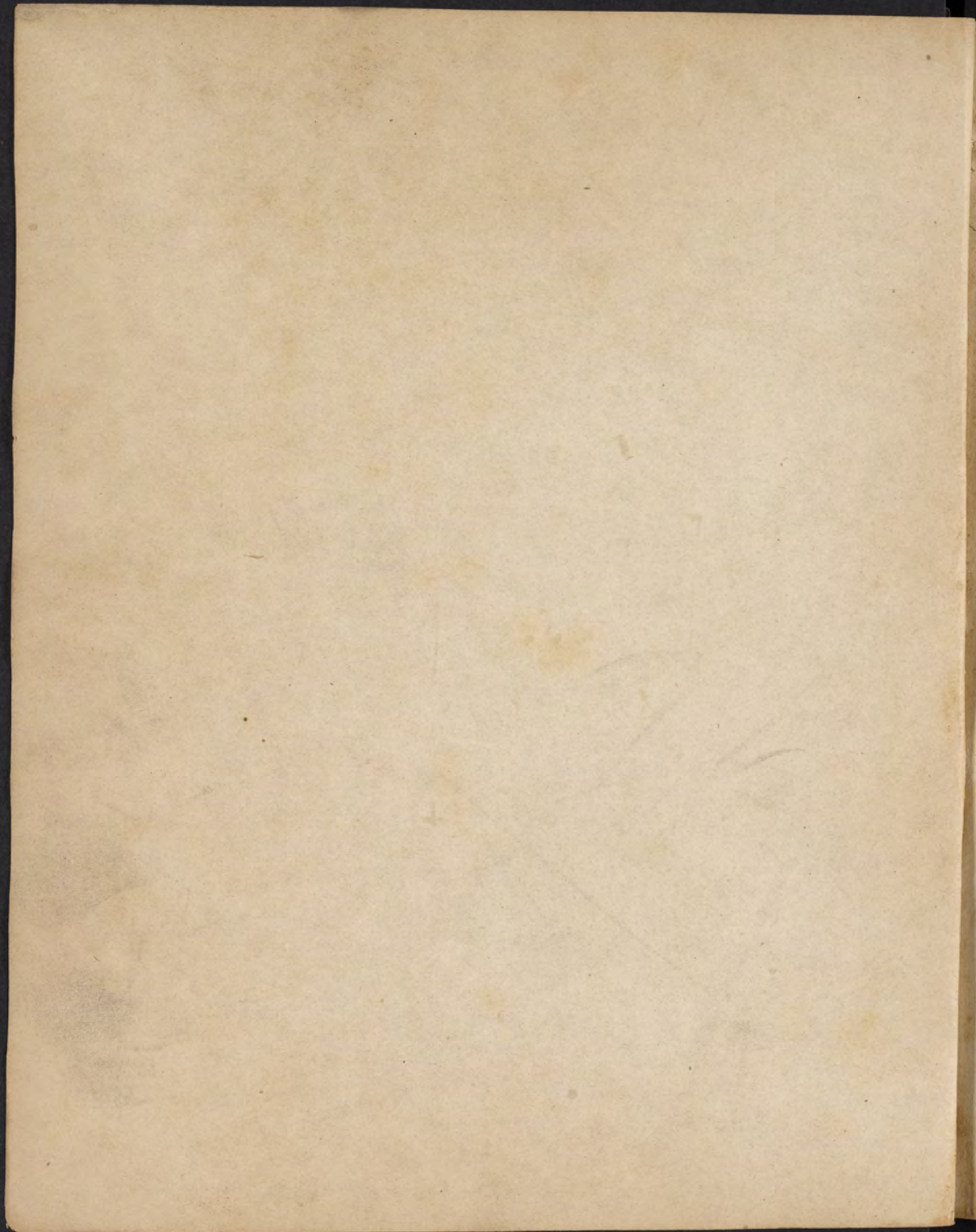
e

f

m







Vol 2

Physics M. S. Lectures.
vol. 2

111
10
10
10

Notes

on

Surgery

from the

Lectures

of

D^r Philip S. Physick

— Voll: 2nd —

BOOKS TO BE
TO
AMPLIFIED

Index for Vol: 2nd

Surgery, Clinical and Clinical Lectures

Fractures	Sternum	1
"	Ribs	2
"	Clavicle	6
"	Os Humeri	9
"	do of different kinds	12
"	Fore Arm	22
"	Olecranium	25
"	Coronoid process	27
"	Hand	28
"	Fingers	29
"	Lower Extremities	31
"	Os Femoris	31
"	Tibia	46
"	Fibula	53
"	Patella	56

FEB 17 1911

77968

Dislocations	61
— " — Lower Jaw	64
— " — Clavicle	67
— " — Os Humeri	68
— " — Arm at Elbow	76
— " — Hand	80
— " — Fingers	80
— " — Thumb	81
— " — Thigh	82
— " — Patella	91
— " — Tibia at Knee	94
— " — Ankle	95
Sprains	97
— " — Ankle	99
— " — Wrist	100
Injuries of the Head	103
— " — Contusion	103
— " — Punctured wounds of Scalp	109

"	Compression of Brain	114
"	Operation of Trephining.	118
"	meny.	
"	Inflam ⁿ of the Brain.	124

I expected the movement of these bones, by means
of the action of the middle fibres of the pec-
toralis muscle - A patient came to St George's
hospital whilst I was there as ~~last~~ resident
surgeon - He complained of pain at the
heart bone - I examined it but could
detect no fracture. To ascertain ~~certainly~~
the state of the case I requested the pa-
tient to ~~make~~ apply his arms extended
upon my shoulders and to make
pressure against my shoulders in an
inward direction - whilst he was
doing this I applied my hand to the
sternum & perceived that the upper part
move forward upon the under part
the ~~condition~~ was also felt here.

Lect. 20th

Fractures of the STERNUM

The Sternum tho' rarely yet it is sometimes fractured, and if the fracture is in a transverse direction it can easily be discovered by rubbing the broken extremities agst each other. —

As regards the fracture itself it is of little importance, But the great danger arises from the injury resulting to soft parts. —

Abscesses often form in the Thorax or Specula of bone pierce the Mediastinum. —

If called to a case of this sort, our object should be to prevent inflammation and to accomplish this we must enforce the Anti-phlogistic plan & push it to a great extent. N. B. purging, low diet &c. &c. —

If the fracture be compound and

- + and mostly at the angles of the ribs.
- + The first & second ribs are very seldom broken.
- + because the ends of the bones are fixed at the spine & sternum.
- ## Because the intercostal muscles above & below act equally in opposite directions.

2
exfoliation will most probably ensue & we
are then to remove the long pieces. —

If Abscess form our only resource is to per-
forate the Sternum & discharge the pus. —

The Ribs are ^{not} often fractured in consequence
of the strength derived from their Arched
form they are usually broken by falls, or
violent blows, most commonly in a trans-
verse direction But sometimes obliquely —

The fractured ends cannot overlap each
other neither can they be displaced laterally^{ly}
they are commonly forced in, tho'

Boyer relates a case of its being forced
out this is the only case on record & was
occasioned by a heavy waggon pressing a
man against a wall the Sternum in this
case was pressed in & of course the rib was
pressed out. —

Fractures of the Ribs may be discovered

by an acute pain in the part.

and the patient coughs up blood.

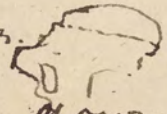
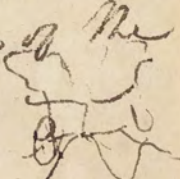
at the time of breathing ⁺ & by pressing the rib at different parts Crispitation may be heard or felt — If however we are still at a loss to ascertain where the fracture has taken place, desire the patient to cough & it will be very evident. —

If the lungs are pierced Emphysema takes place ⁺ the treatment in this case is very simple, a Compresp is to be applied & then a roller at the broken part — But if it proceed to an alarming degree, it becomes necessary to make an incision into the thorax, by this means one lung will be collapsed & air will not escape from the other recollect that the puncture should not be made at the place of fracture. —

The Treatment of Fractured Ribs, consists in preventing their motion as much as possible in respiration & then the patient

+ I recommend the Demulcent drinks. they are of great advantage when there is cough.

If inflammation of the pleura takes place - the remedies for Pleurisy are proper.

I have the know this innominate fractured at the upper part is horizontally across from the anterior tubercle process to the posterior process -  also - for one side of the symphysis down through the ramus - 

4

will be forced to breathe by the Diaphragm, as respiration is the only means by which displacement can take place, & in this way secure the union of the two ends, a roller is all that is requisite. —

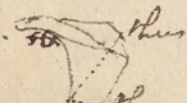
The Antiphlogestic plan is to be pursued. P. S. purges, low diet & demulcents have been used with advantage to relieve the cough which usually accompanies fractⁿ. ribs. —

Their Modus Operandi is not known, but the fact is certain, that about 35 days is the usual time in which union of ^{the} bones takes place. + —

The Cartilages of the ribs are found ossified & are fractured, the treatment is precisely that as above detailed. —

The Bones of the Pelvis are sometimes fractured + the Sacrum is fractured but it is of little importance as it respects the bone itself, but the soft parts generally suff^r. much. —

+ It is also fractured at its inferior angle and
also in an oblique direction, passing through
the superior and inferior costae of the base

viz.  thus

In the first case both fragments are displaced
but in the other neither.

In Coccygis we may observe the same & the only thing necessary to be done, is to confine the patient to the horizontal position & prescribe the Antiphlogistic regimen, in this way we will avoid Collections of matter in & about the rectum. —

When the Lium or Acetabulum are broken Splints & bandages — rest as above described & depletion are the only remedies requisite. —

If the Bladder is punctured by a Specula of horn it is incorrect to dilate the wound, in search of it — a Catheter is to be introduced & retained in this situation for a few days, by this time adhesive inflamⁿ. will occur and the parts will unite. —

The Scapula is rarely broken, but when the accident does occur, it is most usually at the Acromion process, the fracture may take place in any direction. But it is most commonly transverse, It is

The fractured process is carried outwards & downwards
by the action of the ~~an~~ Deltoid muscle & by
its own weight.

and the scapula having lost the support which
prevents its displacement tells over on the trunk
anteriorly - so that the shoulder is found of more
anterior than natural and downwards.
The arm also has lost its support &c.

6
ascertained by feeling this portion detached
from the body of the bone by the Muscles. +
The Treatment is, to place a Compress under
the Arm pit & bind the Arm down to the Side
by means of a Roller & then the suspending
bandage. —

Lect. 21st

Fractures of the Clavicle

This bone owing to its exposed
situation & its slender shape is often broken —
and this usually takes place about the middle
of the bone — There is no difficulty in
deciding whether or not the bone is broken
If it is, motion is entirely at an end, Consider-
able pain is felt & the part carries this
Shoulder much lower than the other, he
endeavours to rest it upon any object
that may be in his way. —

and also if the fracture be between the acromion and
coronoid process - so also if the fracture (tho at
the middle of the bone) be from the upper part
equaly behind & inward toward the sternum.

7

It is said that Disalt could always tell by the attitude of the patient whether the ~~fract.~~ Clavicle was broken.

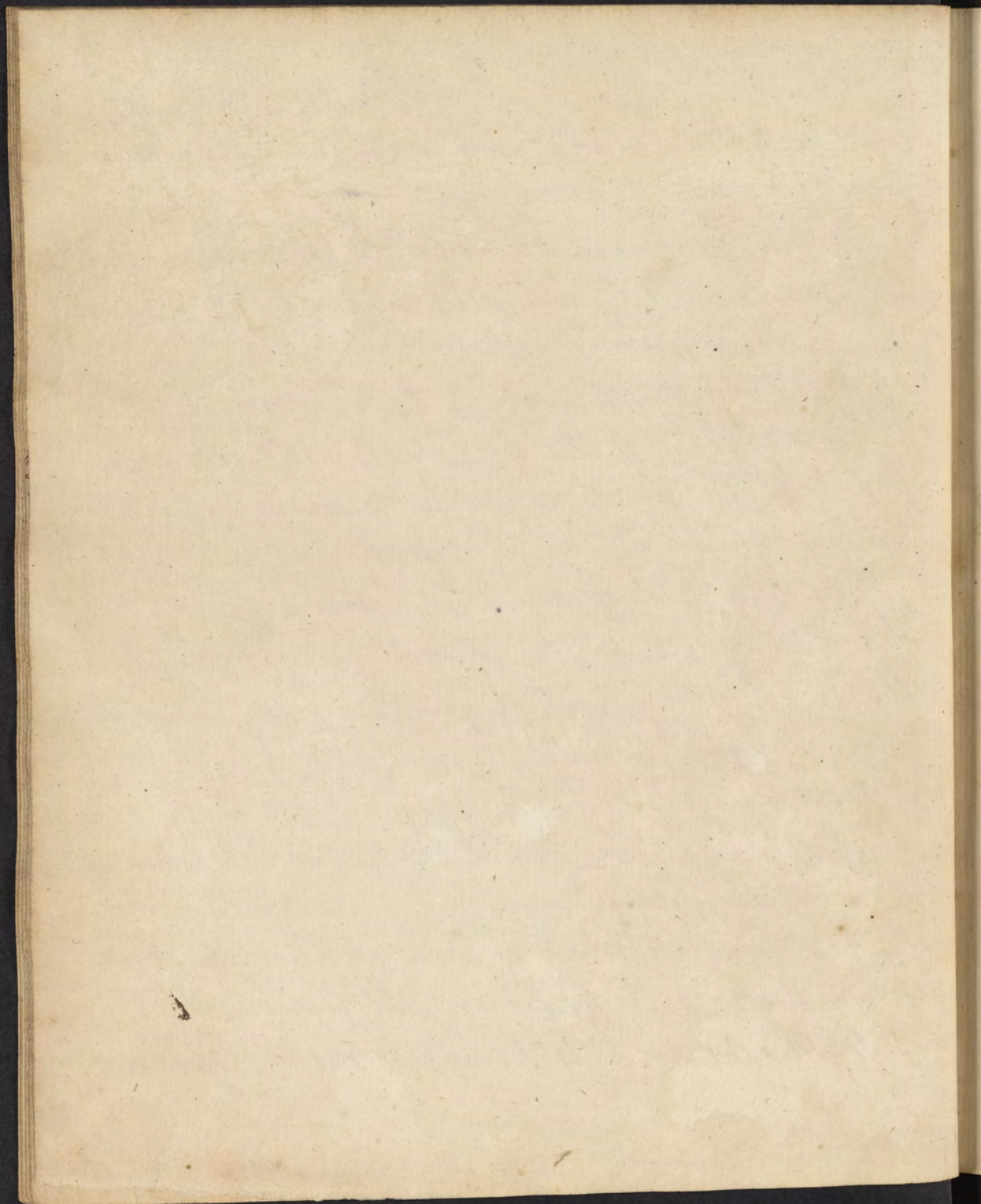
If the fracture be near the Sternum, there is very little displacement owing to the strength of the ligaments of this part.

The object in view is now to replace the bone in their natural situation & retain them so; The application of the dressings, bandages Cushion &c. &c. effect this purpose.

The pad brings the Arm upon the body & this Counter acts the action of the Latissimus Dorsi & Pectoralis Major, this pad should be placed by a distinct roller, as the roller is now applied which confines the Arm & presses the lower part where it is tight against the body.

The third Roller is now applied, the object of which is to support the Arm.

If however this bandage made of redundancy



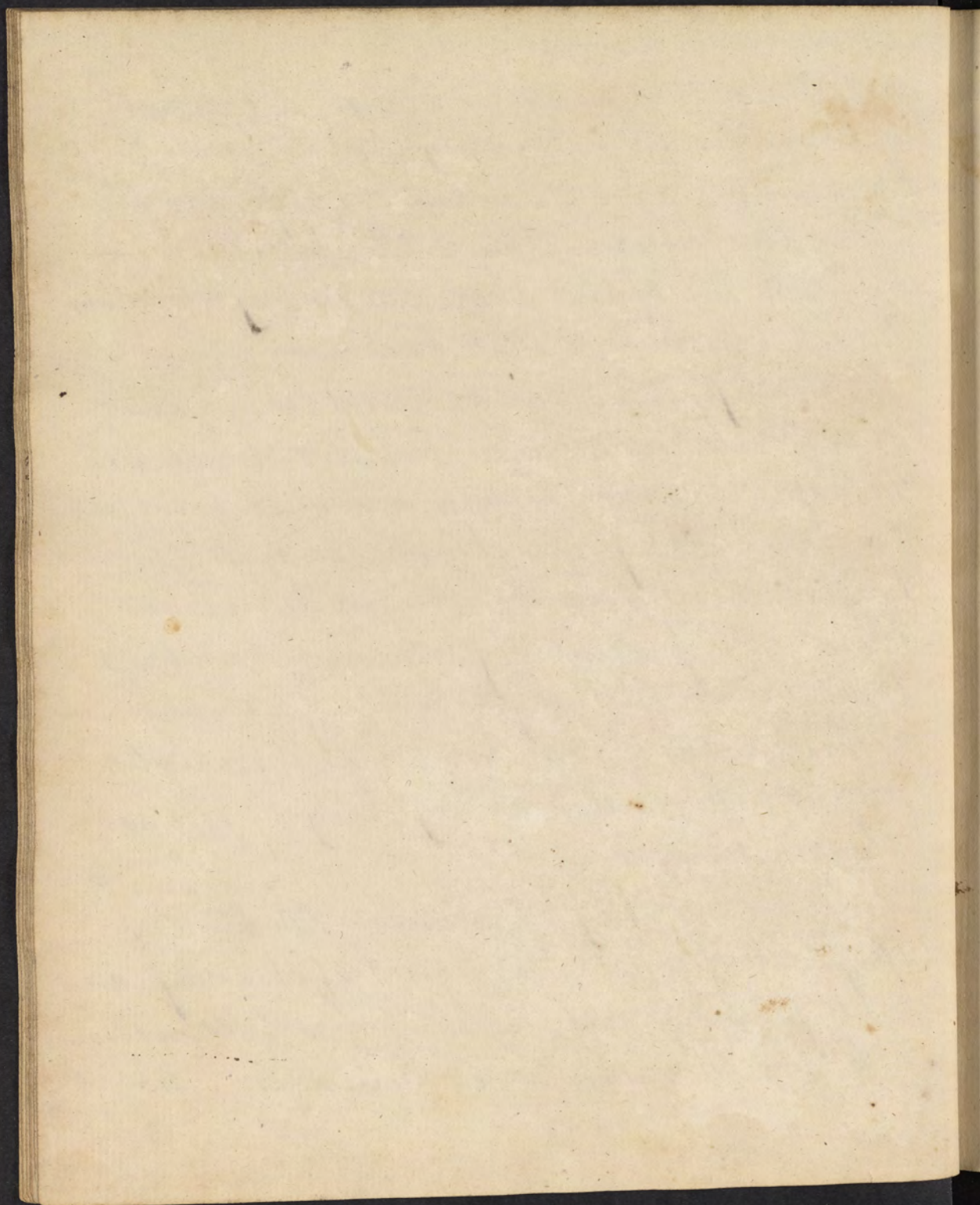
Retaining the fractured bones in contact is not approved - He may use the figure 8 bandage; that is, a bandage so applied as to form this figure - this is the Eng. Method -

To the use of this there are many objections which is needless to state here. -

After applying our bandages &c - in case of a fractured Clavicle, we sh^d. always ascertain whether the circulation is going on, for if it be compressed by the bandages the Surgeon will soon be obliged to remove them, the patient experiencing numbness, to ascertain this important fact is - whether the Circulation be free & uninter-rupted the radial artery may be felt at the wrist. -

It is necessary to examine the state of the parts often, to the neglect of this important point much mischief has followed.

If the fracture be comminuted, no

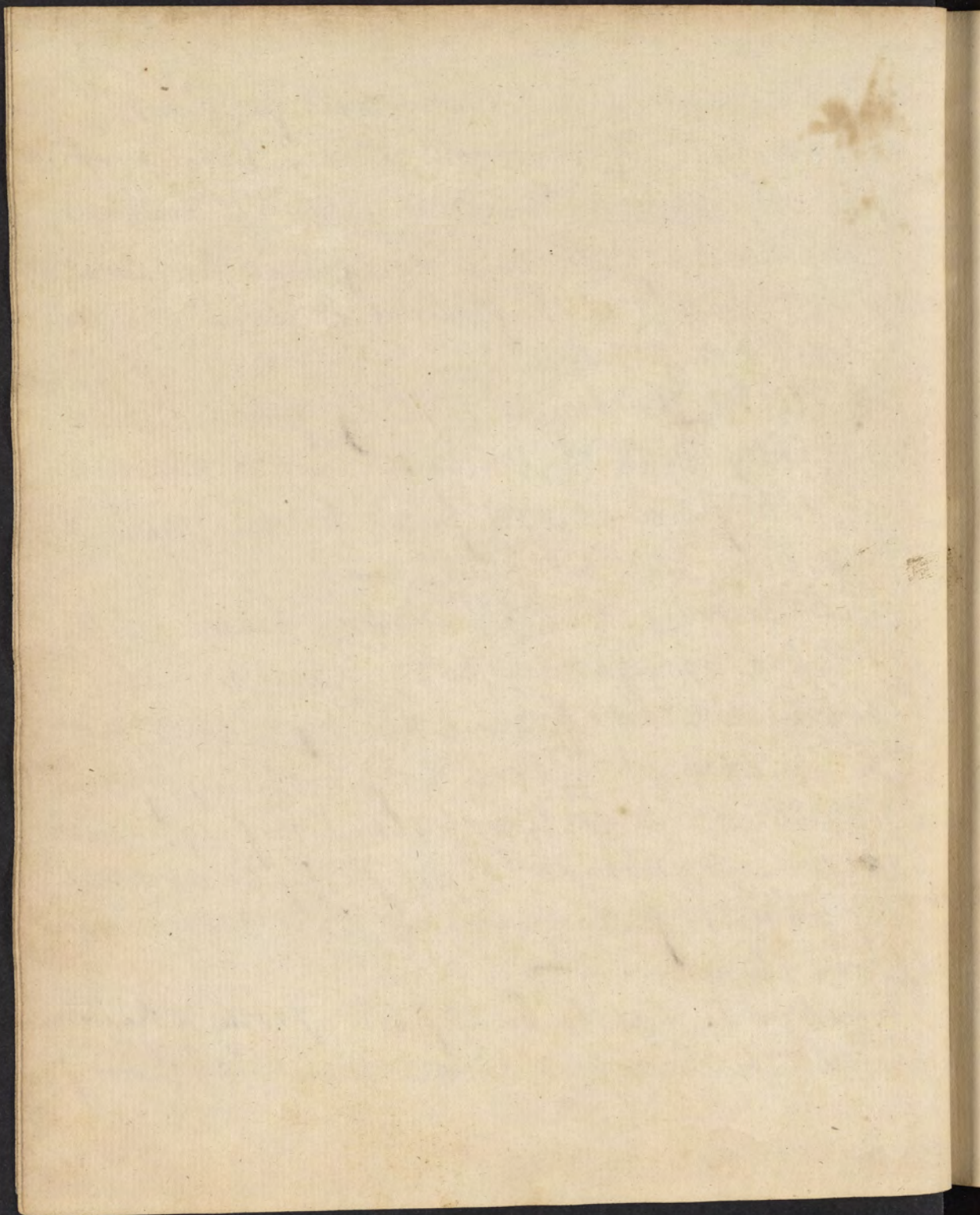


No contrivance yet known will prevent deformity; A modern French Surgeon of great reputation has laid aside all bandages & confines his patⁿ in a horizontal position; this w^d answer if the patient could be confined in one posture. —

Os Humeri Is occasionally fractured most frequently near the middle; But the fracture may take place at any point between the head of the bone & the coracoid. —

Dr Dorsey has seen the bone broken within the capsular ligament, and he has seen the coracoid detached from the body of the bone. The Treatment is very simple, the symptoms are evident, distortion, pain, & crepitation. Counter extension sh^d be made by an assistant clapping the patⁿ round the chest & extension from the arm. —

A roller is now to be applied from the arm for we are to expect some inflamⁿ at first.



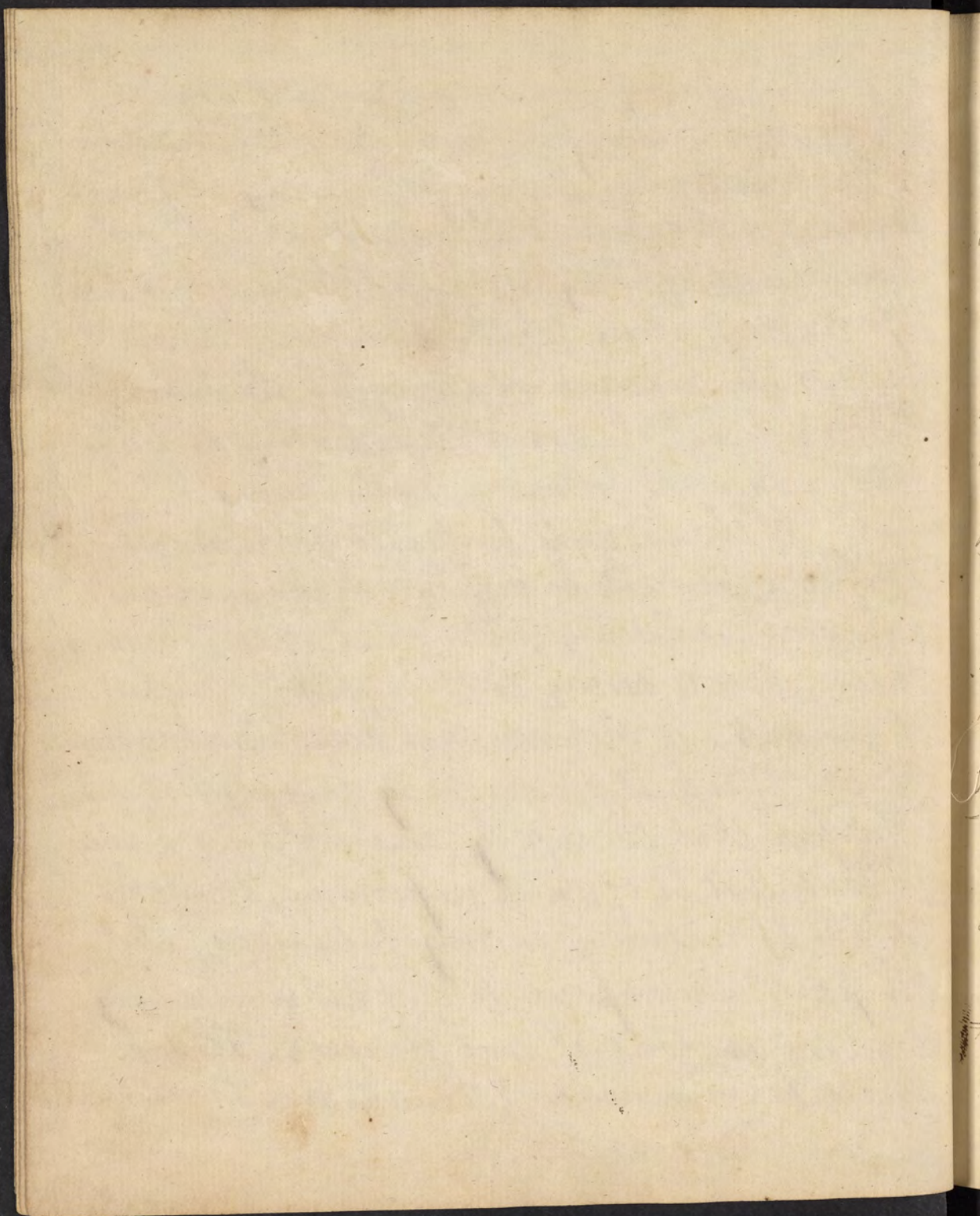
to the shoulder; then Splints are now applied,
One external, One posterior & the other Anterior.

The bandage is to be applied loosely at first
for we are to expect some inflamⁿ. at first and
much swelling, & by applying the bandages loose-
ly we will allow for this. —

For the manner of applying the bandages
we refer to Corsey's Elements of Surgery
Dr. P. said the following observations

If the clavicle be fractured near the
Scapula it will be difficult to discover the
accident as little displacement of the fragments
ensue, this is owing to the strength of the
Ligaments. — Under such Circumstances, we
should think it unnecessary to apply bandages —

Suppose that the injury was not discoverable
it could not be of much importance, But this
method of reasoning is very fallacious, tho'
the parts are opposite to each other yet they
are not in contact nor at rest, The soft
parts become united & sometimes even suppuration



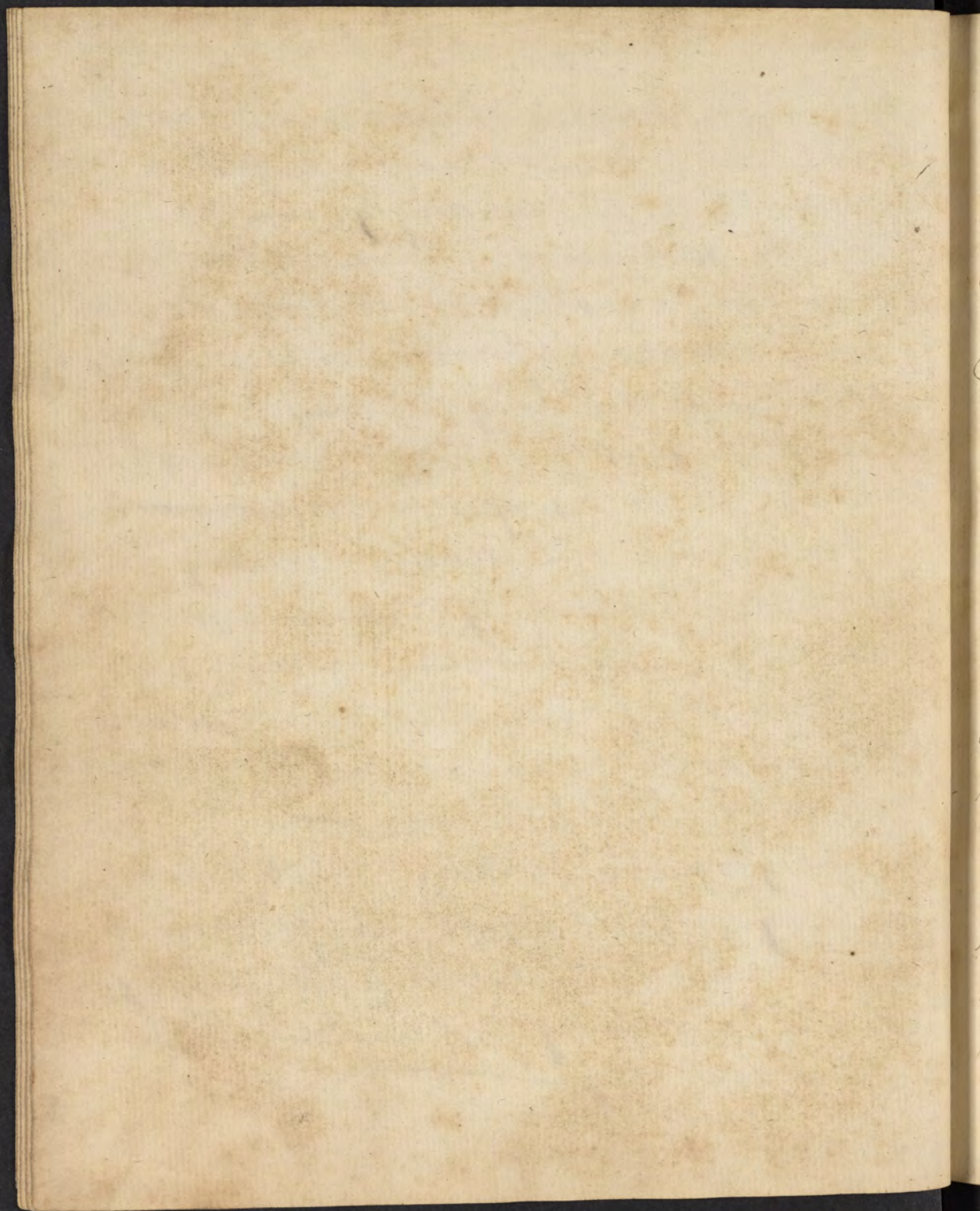
If therefore much violence has been done to the bone, it is correct always to suspect a fracture & treat it accordingly. —

Before an opinion is given as to the fact of their being a fracture or not, much attention to circumstances, appearances &c is proper, in as much, as it is very injurious to the reputation of the Surgeon if time or another Surgeon sh^d. prove his opinion erroneous. —

The Bandage of Desault is certainly the best in use, yet it is by no means sufficient in all cases. — The sternal fragments will sometimes be separated from the scapular portion, notwithstanding our utmost attention in its application. —

In applying this bandage much care is necessary to avoid compressing the nerves. —

Dr P. — has seen a case in which paralysis was produced by pressure continued for a short time only. —

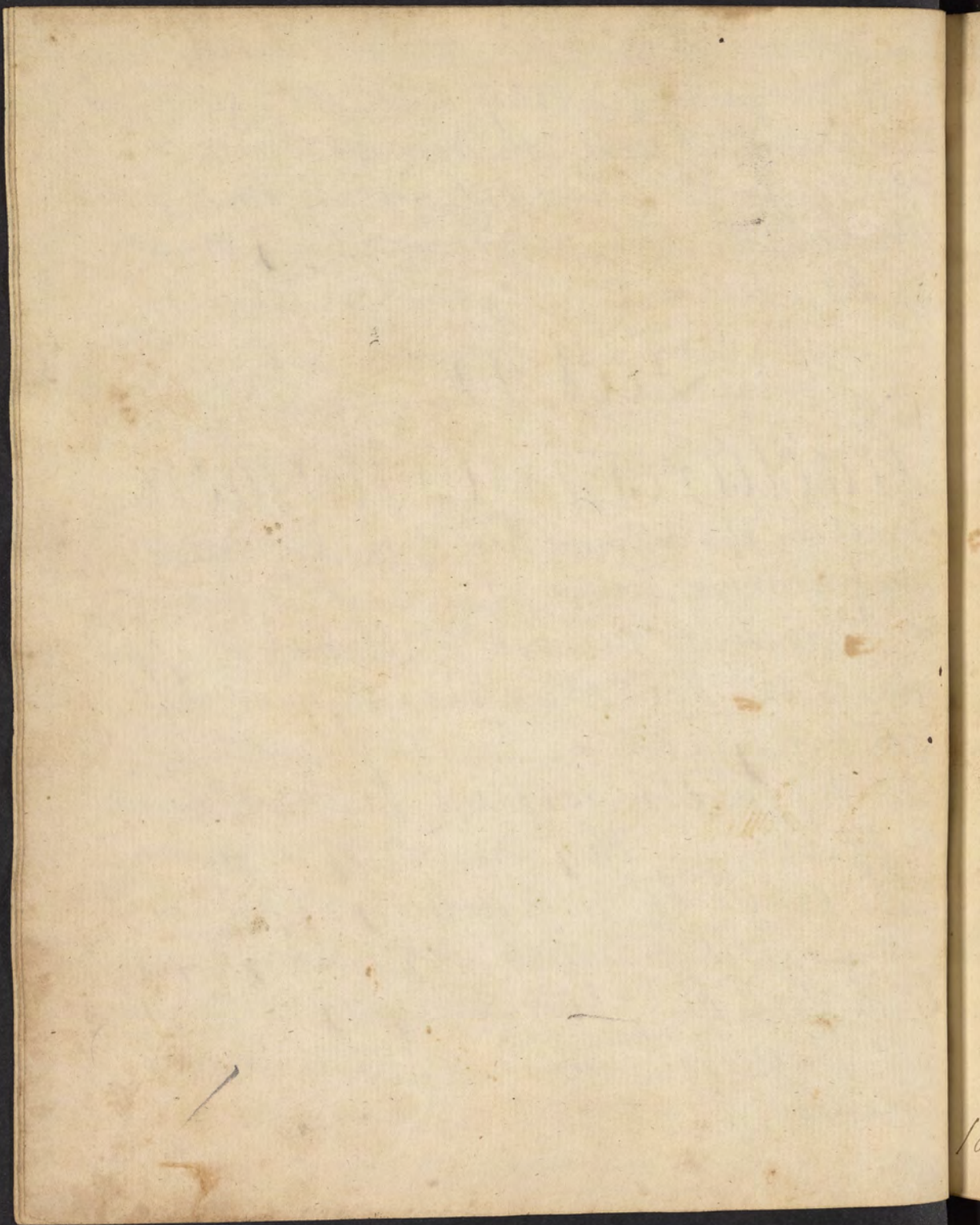


A countryman fell asleep and after a few hours
awoke — But could not move his arm, he
applied to D^r P. — but nothing could be done
for him, he never recovered entirely the use
of his arm. —

Lect: 22^a

of Fractures of the Os Humeri
(Fractures of a different sort from those noticed in
the preceding Section)

From the situation of the neck or upper
end of this bone we would suppose that it
was rarely broken, But in practice we find
this supposition confuted, this accident often
happens. — They are usually transverse
& are caused by force directly applied to the
bone. — The fragments are frequently displaced
If the force be applied laterally the fragments
will be thrust inward, & Vice Versa It is
therefore of some importance to know how



it was produced.

It occasionally happens that the vessels are lacerated & in this case ~~Ecchymosis~~ ^{Ecchymosis} ensues & it is impossible to discover the point of fracture. The Arm does not change its appearance, this is however owing to the swelling of the parts.

A superficial examination would induce the Surgeon to suppose the Accident to be mere Contusion, But there may be both Contusion & fracture.

In order to ascertain the true State of the case the Surgeon should introduce his fingers into the Axilla, the integuments here being very superficial, the Bone can be felt.

If Dislocation has taken place the round head of the Os humeri will be in contact with the fingers.

If Fractured the sharp edge of the fragments will be perceived. — It may be further known, by an assistant counter

There the rotundity of the shoulder is not lost.
but there is a depression below the shoulder.

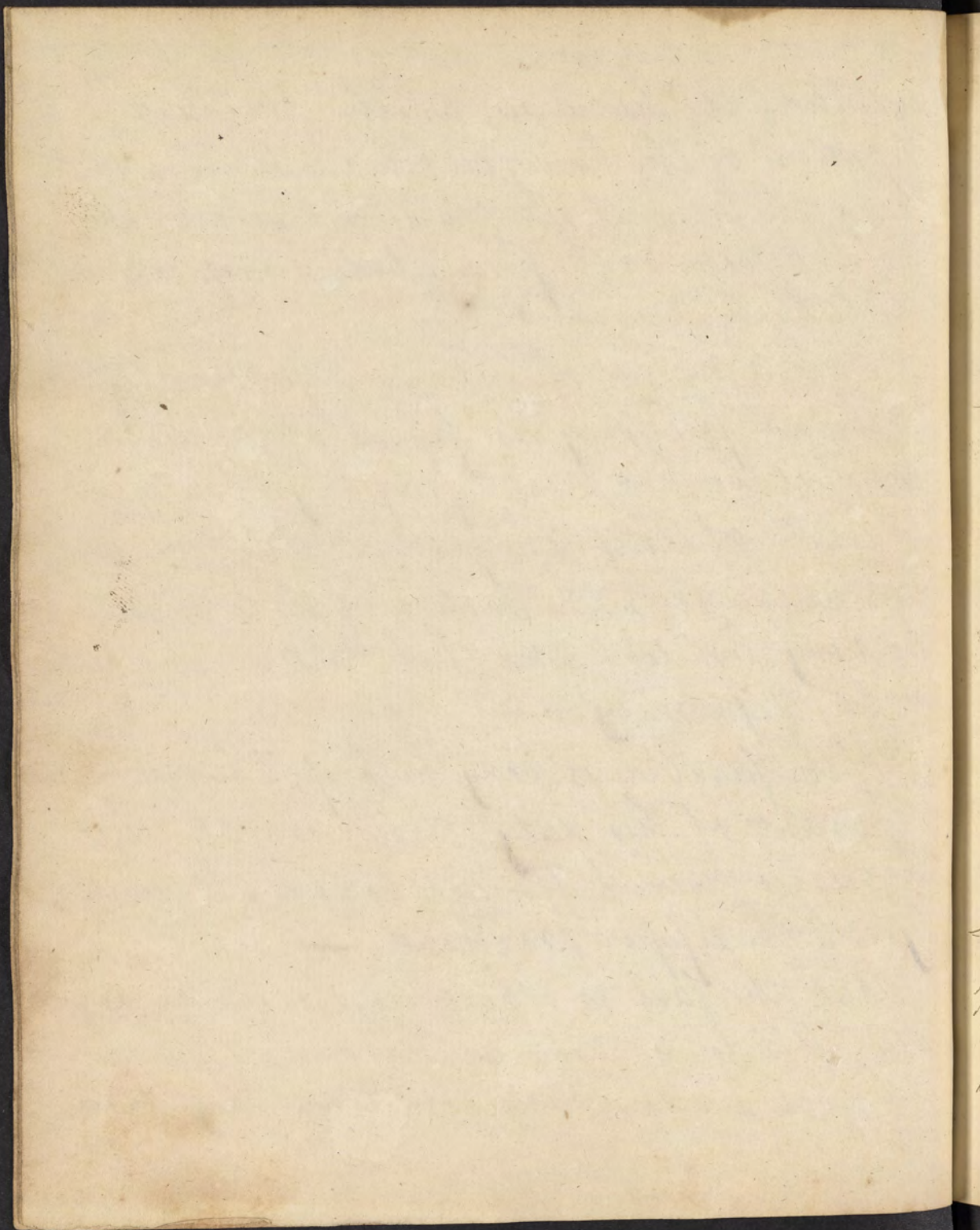
14

extending the humerus, another the lower portion of the bone, while the surgeon taking the Arm at the fracture & moving the piece below, or the piece above a crepitation will be heard. — +

It is a matter of no small importance to ascertain precisely the point of fracture, for if it be not treated properly & be allowed to unite of itself, the part will suffer much inconvenience, the motion of the Arm will be very limited, and there will be considerable deformity. —

If the fracture is very high up, a surgeon ignorant of his duty, would conclude that bandages were sufficient so as to act directly on the upper fragment. —

But the fact is otherwise, for in no case are Splints of more importance than the one now under consideration; They do not,



it is true, act directly upon the fracture, but they do indirectly, posteriorly they act upon the scapula, & anteriorly upon the acromion & coracoid process, in this way they act & are of much advantage. —

The splints must extend above the shoulder or they are useless, they are to be retained by bandages & any inequality of the arm is to be filled up with lint &c — The whole is now to be secured to the body, by a broad roller. — The roller should not be very tight at the upper part of the arm as it would have a tendency to draw the fragment towards the body — But it should be tightened at the lower part. —

Sometimes the bone is not fractured but merely splintered & this most generally takes place in a longitudinal direction —

The splint usually set right ang^o with the body of the bone, like a spur upon the heel —

WILSON TO WALKER
TO
AMERICA JUN

Motion can be freely performed in every direction & no Crispitation can be heard, yet the pain is so great as to leave little doubt as to their being some injury done to the bone, strict examination proves that the bone can be moved.

Dr. P. has seen two cases of this kind, they were not discovered by the Physn. & united in the position above mentioned.

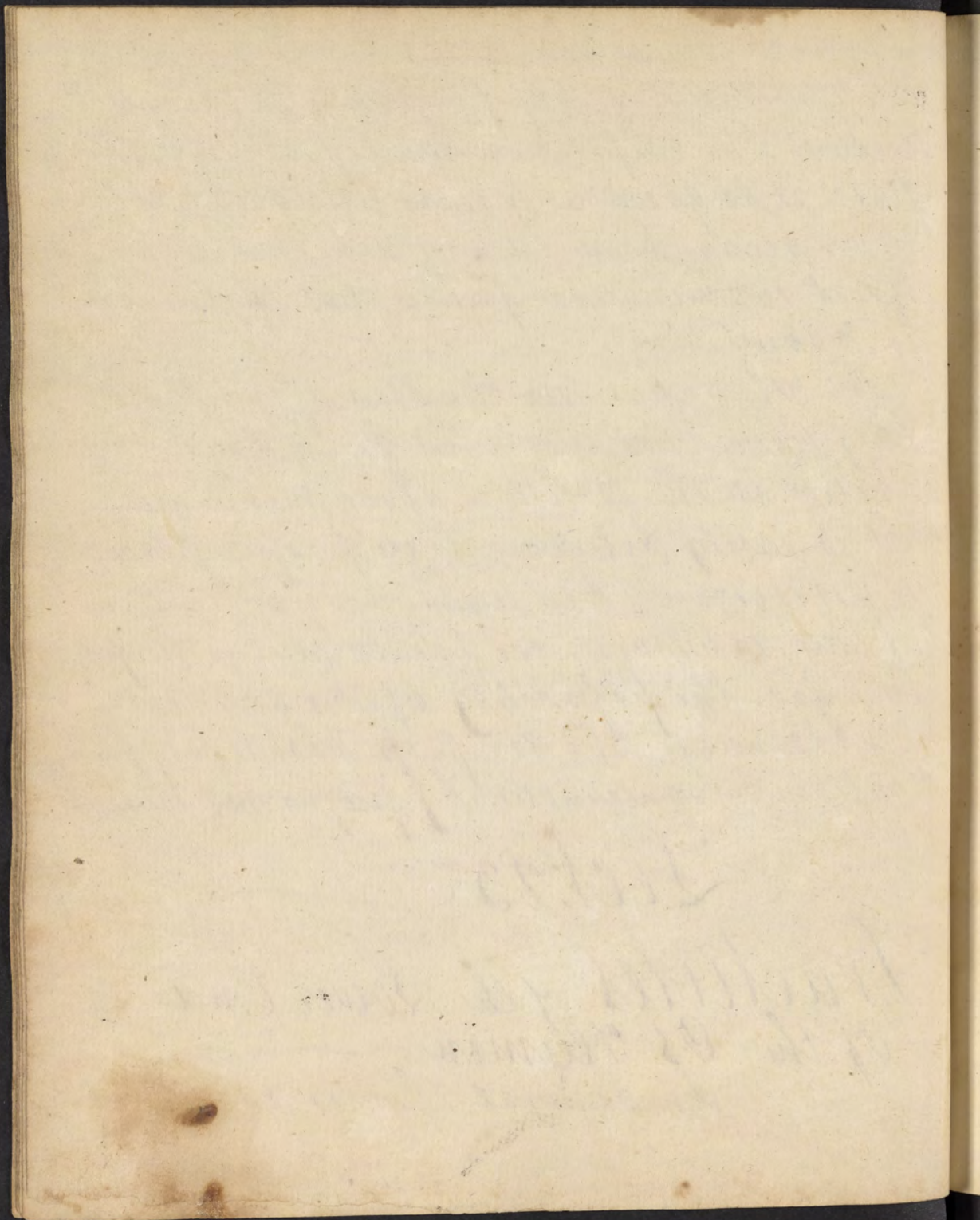
It is easily returned to its proper place if discovered, & in examining a fracture of this Os humeri, we should always keep in mind, the possibility of this accident.

A Baneage and Compres should be applied & inflamⁿ. Counteracted by proper remedies.

Lect: 23^a

Fractures of the Lower End
of the Os Humeri.

In general there is not much



12

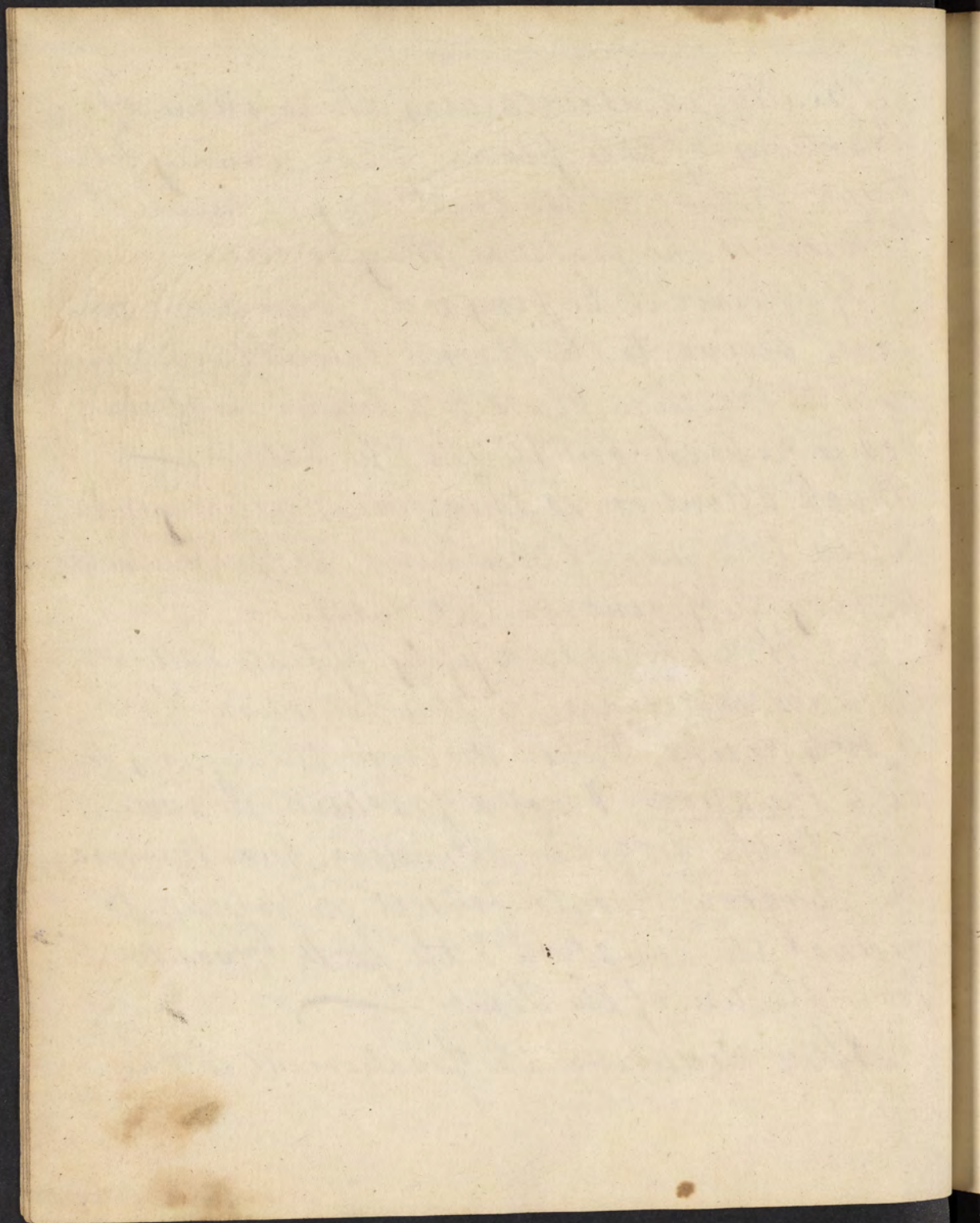
difficulty, in ascertaining the existence of
fractures of this place. Pain usually fol-
lows, grating of the bones may be heard &
Sometimes the fracture may be felt.

If however it be very low, some doubt may
arise owing to the strong resemblance which
such a fracture bears to a luxation of the
bones which constitute the Elbow.

Much attention is therefore necessary when
called to a case of this kind, as the treatment
is very different in two cases.

If we should apply Splints & allow
the Arm to remain in this situation for
5 or 6 weeks, & then discover the injury to
be a luxation & not a fracture, in addi-
tion to the disgrace attending, such ignorance
the Surgeon would find it impossible to
reduce the luxation & the part would
lose the use of the Limb.

After reducing the fracture, it is the



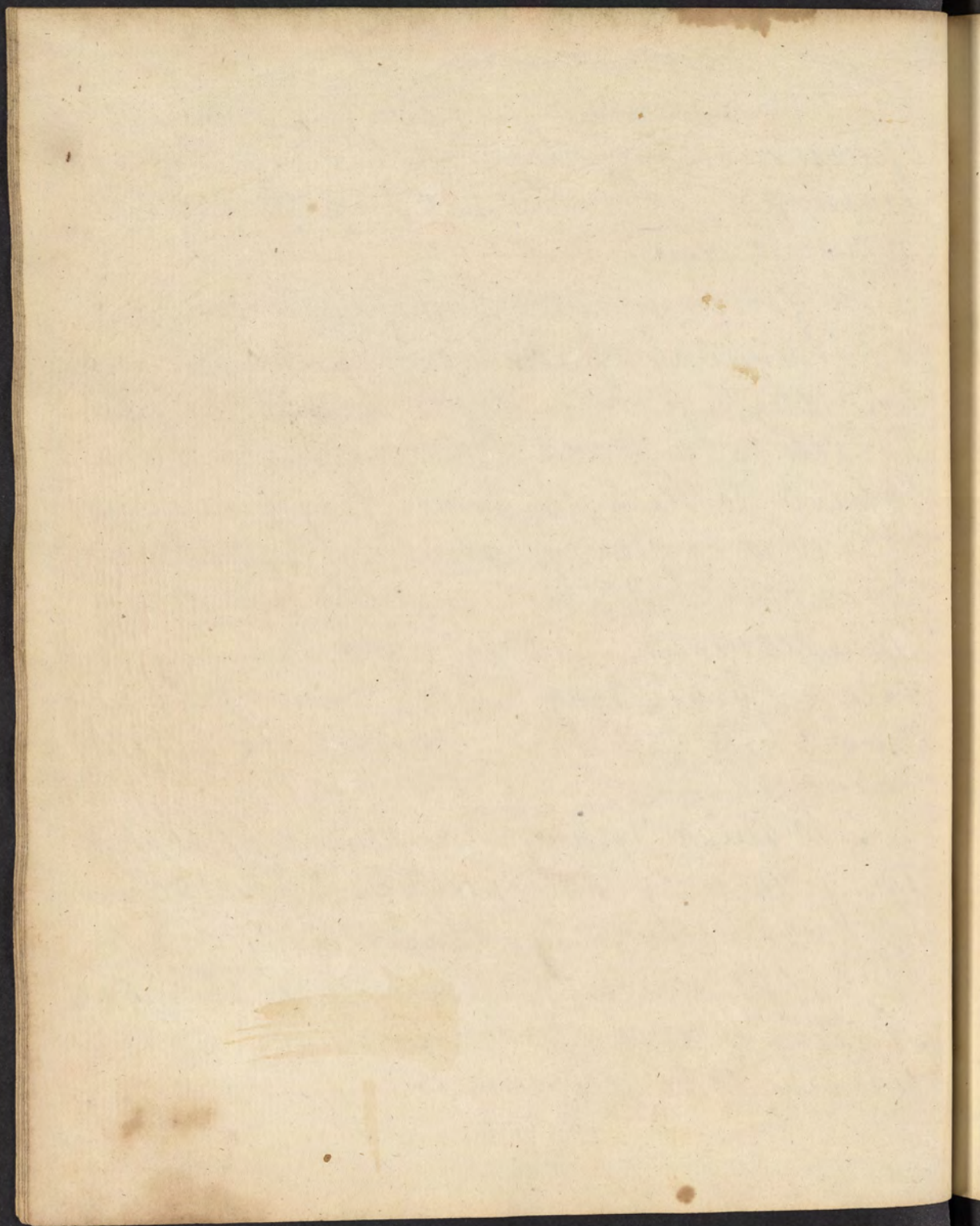
18

practice of some Surgeons to apply bandages & Splints reaching only to the Elbow; this is improper, as it does not keep the lower fragment at rest.

The forearm must be kept motionless, & to accomplish this angular splints are necessary they pass from the arm to the forearm & reach to the hand, without this it is impossible to keep the lower fragment at rest.

As it is so closely connected with the forearm that their motion are almost simultaneous. — it is right to apply a roller, beginning at the hand, & extending up to within a short distance of the shoulder.

Angular Splints, are then to be applied, One external, One internal & One Anteriorly & One posteriorly, the roller is now to be passed down & made to cover the splints, & being to rest the forearm upon, is all that remains to be attended to.



In addition to the Transverse fractures we sometimes find the Condyles separated by a longitudinal fracture, sometimes only one & other times both are in this situation.

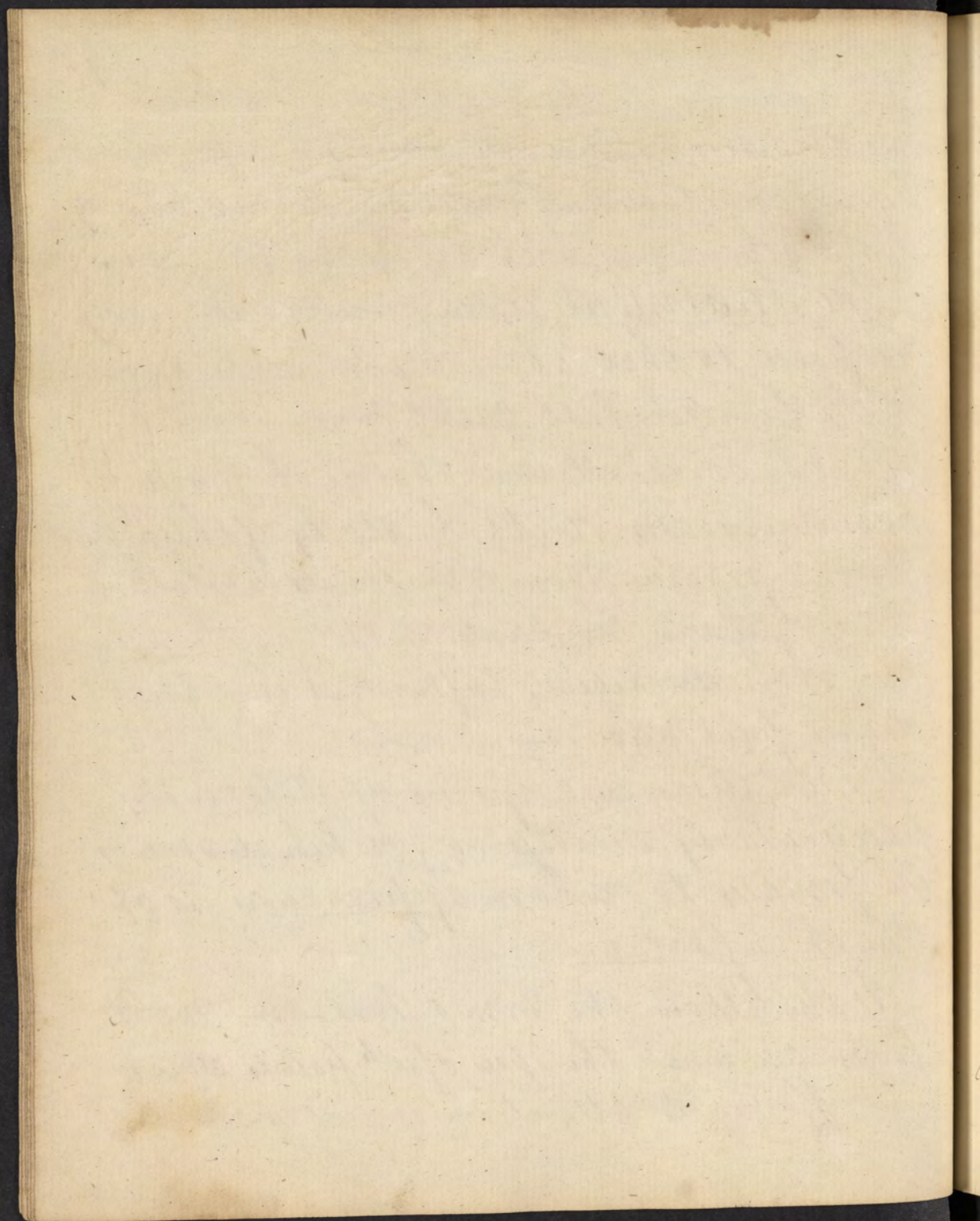
The Treatment is very similar in many respects to that above detailed in the case of the fracture last mentioned.

It is to be recollected that as the fracture communicates with the cavity of the joint. It will require more time for its union.

By keeping the parts at rest in the manner above described, inflamⁿ. is in a great degree prevented.

But there is a species of Deformity particularly distressing, when it occurs in females to whom appearance is of much importance.

At the Elbow the Arm & Forearm meet upon an angle the Apex of wh^{ch} points down
If much attention is not paid to



accidents of this nature (viz) fractures of the
 Condyles will point up. A plate shewing
 the deformity will be found in Dorsey's Surg'y.

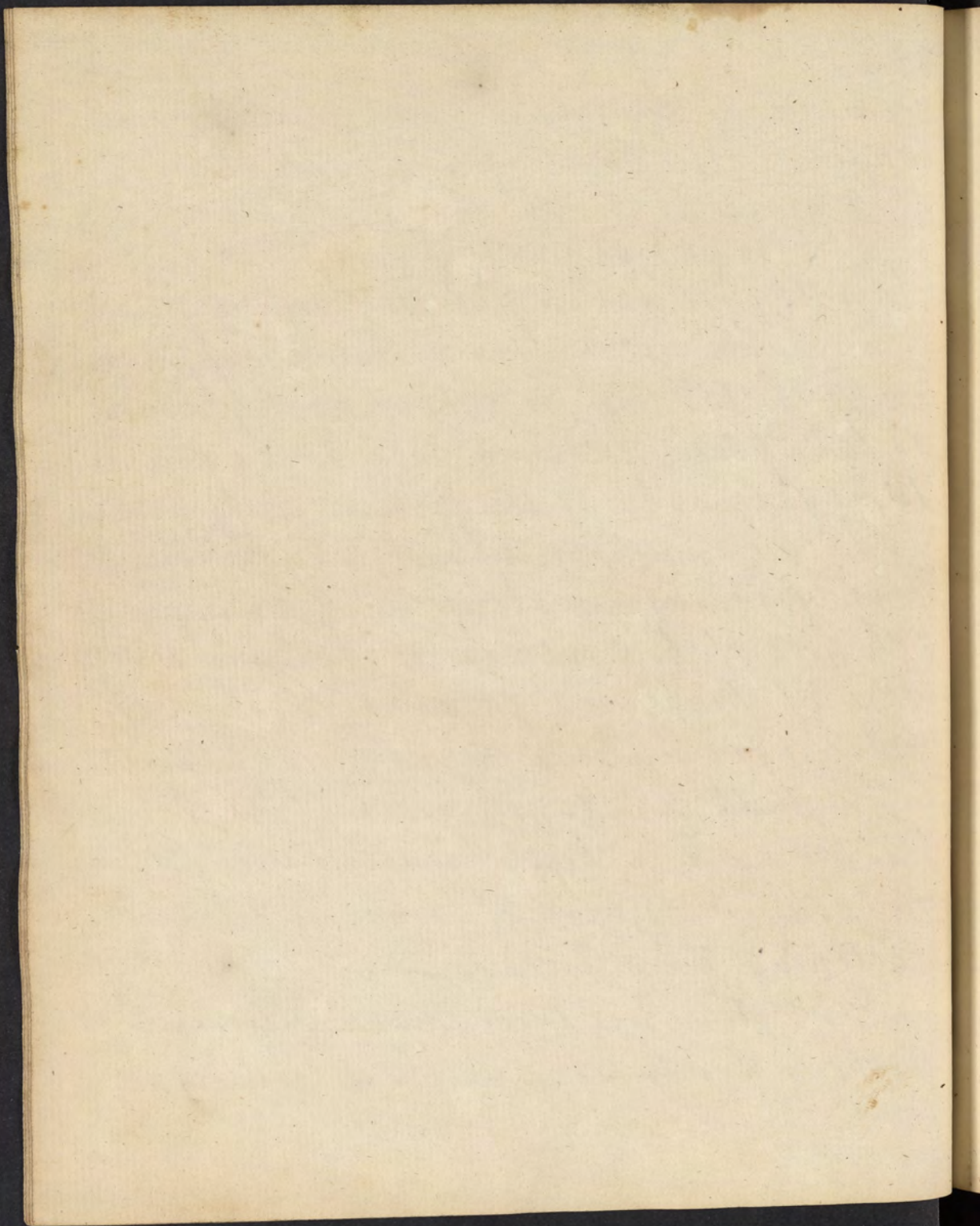
To prevent this if possible

Dr. Physick has adapted the following plan
 The rectangular Splints are applied
 until the 10th day, so that if Anchylosis is
 to take place, the Arm may be in a position
 most favourable to the patient using it.

At this time these splints are removed &
 those forming an obtuse angle are applied
 & the rest of the treatment is the same as in
 Cases of fractured Condyles, to which the
 rectangular Splints have been applied.

The patt. must not walk about, but be
 on his back in bed, his elbow brought near
 his body, & the back of his hand placed
 reclining on a pillow.

Dr. P. has tried many different
 Methods for preventing the deformity above



alluded to & never succeeded to his satisfaction but once, this was the last case which occurred & the treatment was precisely that above mentioned.


There is yet, Another Species of fracture hitherto not noticed.

A Transverse fracture passing from condyle to condyle; the posterior fragment passes backward & the anterior forwards on the bones of the forearm.

The part. suffers much and cannot bend the arm; It is an accident easily remedied if discovered at first.

Dr. P. never saw a case soon after the accident but the treatment in such a case would be very simple, The fragment after being reduced should be kept in that situation by bandages & the arm & forearm should be kept at rest.

It is of great importance to ascertain

There is not longitudinal displacement owing to the
interosseous ligament which connects the bones of the
fore arm together. The displacement is in an angular
transverse direction - so that there will be
depression, at the part. 

+ The pain is augmented at every motion of the hand.
There is an inability to pronate or supinate the hand.
mobility at the place of fracture.

the nature of the nature of the fracture & therefore
of much advantage to be well acquainted with
the Anatomical structure of the part.

To this end it is advisable that the Student
should examine not only the Skeleton but
the living Subject itself.

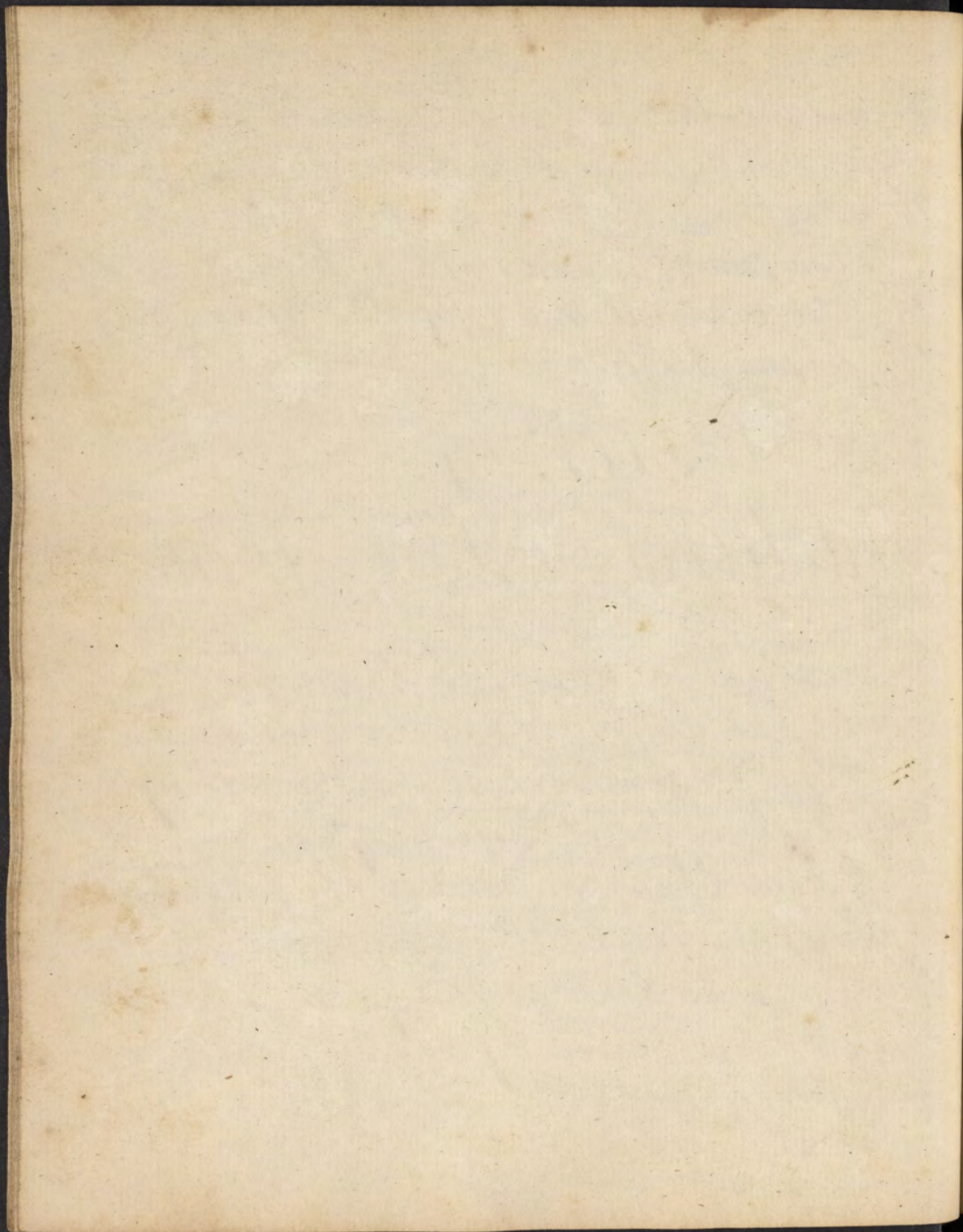
Lect: 24th

Fractures of the Fore Arm

The most usual fracture
is about the middle of the bone & most com-
monly but one of the bones is broken.

The accident is easily discovered by the
Crepitation, pain, deformity &c.

If both bones are broken the diagnosis
is the same with this addition that the
arm can be bent at this place — It also
may be discovered by making extension
& counterextension when the patient will

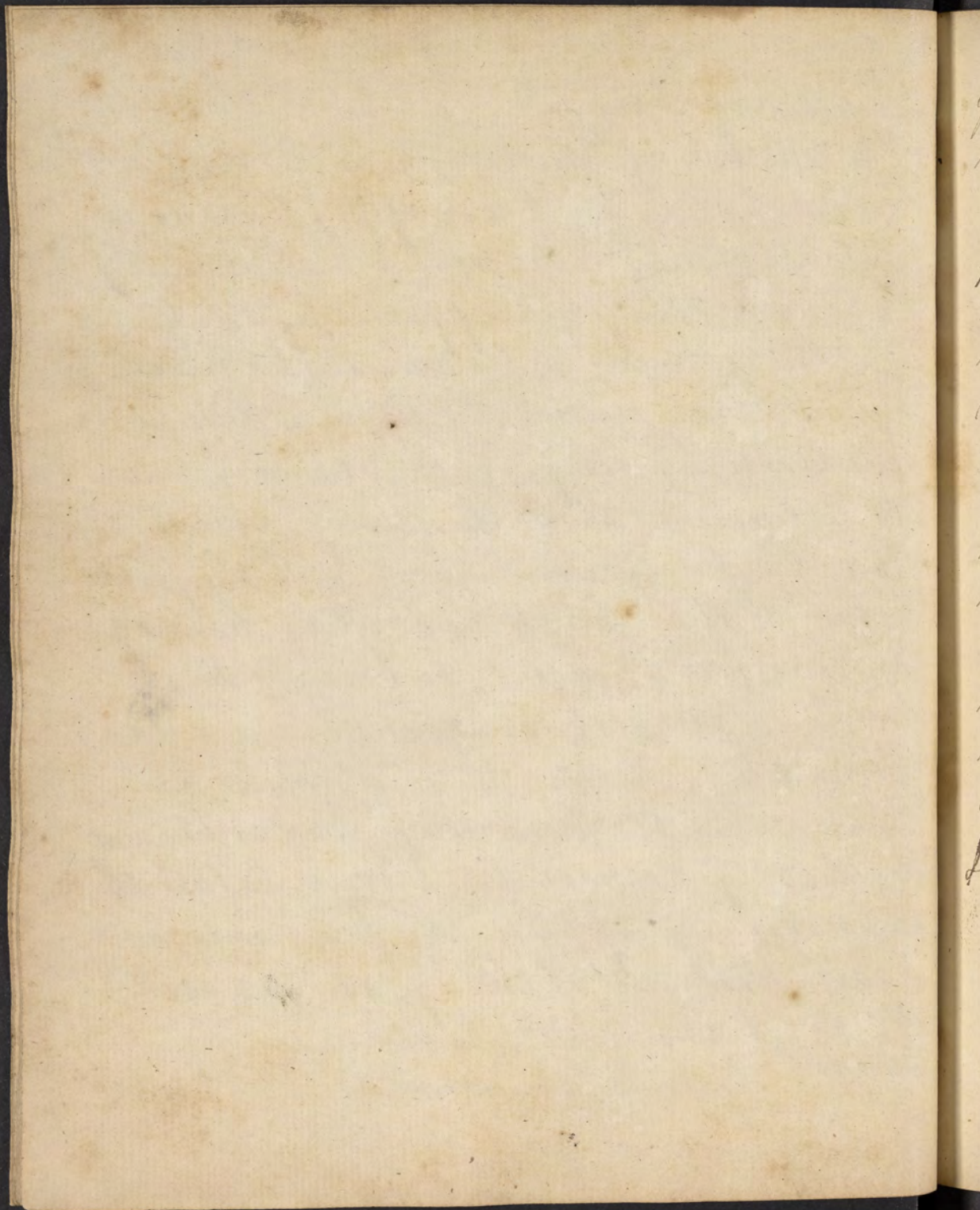


Complain of pain.

The Method of Treatment, in this case, is to reduce the fracture & then apply a bandage up to the elbow. These splints are retained by a bandage & the Arm supported by a sling.

In reducing a fracture of this kind, One Assistant is directed to make Counter-extension by clasping the Os humeri & at the Axilla above the elbow, while another makes extension by taking the part. Hand, as if in the act of shaking hands; The elbow is always to be brought to the side. If the Counter extension is made from the Forearm, the Assist. will be much in the Surgeons way, and as he must necessarily remove his hands before the bandages are applied, the fragments will again slip out of their places and give the Surgeon much trouble.

The splints should be wider than the

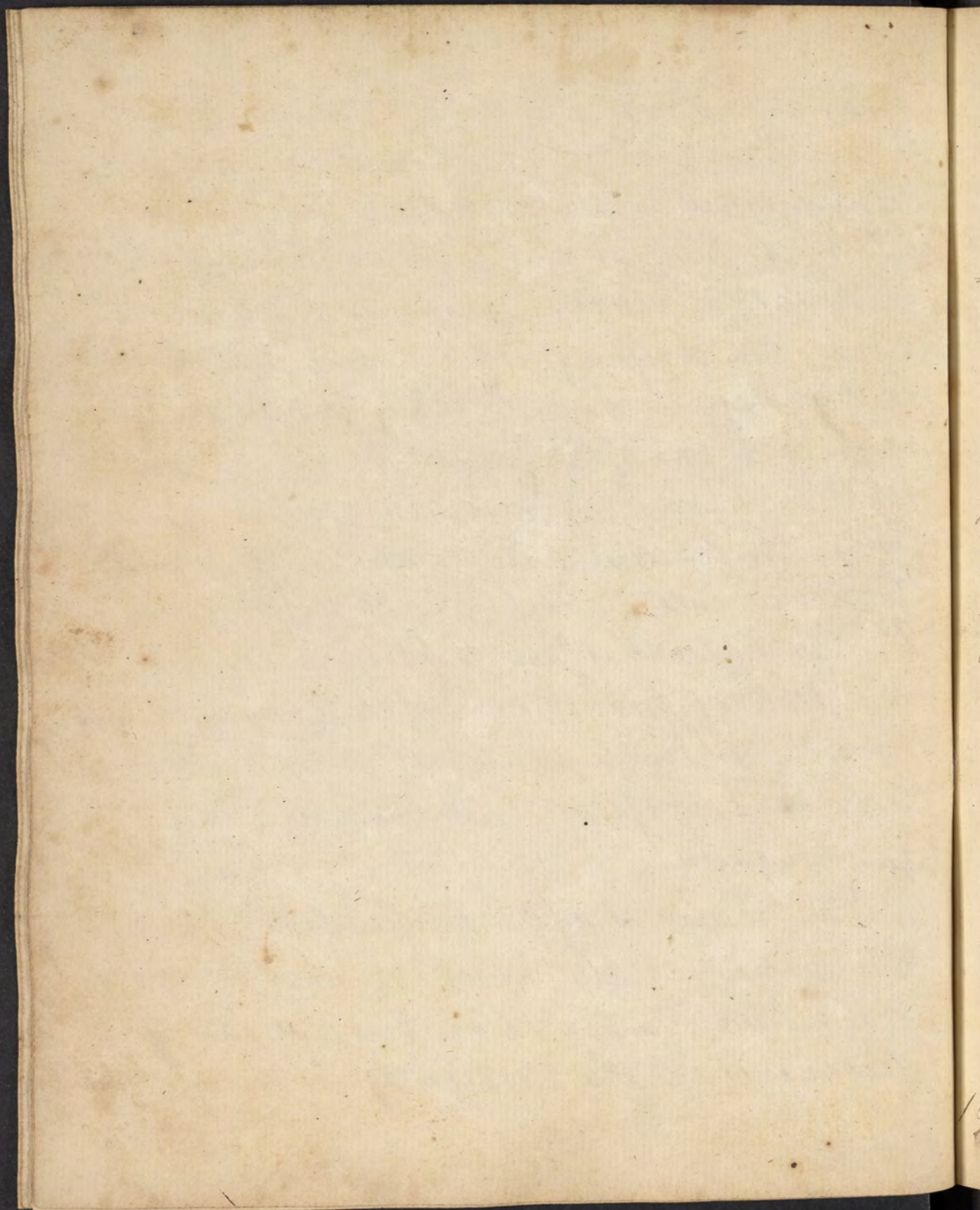


forearm. In 8 or 10 days the bandage sh^d be removed and the fracture examined, if any displacement of the fragments has taken place it may at this time be remedied.

Should swelling, or much inflammation ensue, the dressings of course are to be directly removed. "Why should the spirits reach to the end of the fingers?"

1st If the hand will move in various directions, the radius will rotate with it and the fragments will be much disturbed & 2^d The patient is apt to place the thumb in a state of pronation & if the bones be allowed to unite while the thumb is so situated it will be impossible to make the hand supine again.

If the radius is after broke alone & most commonly at the wrist or near it, it resembles a luxation & is not easily discovered, & the difficulty is much



increased if there is much swelling.

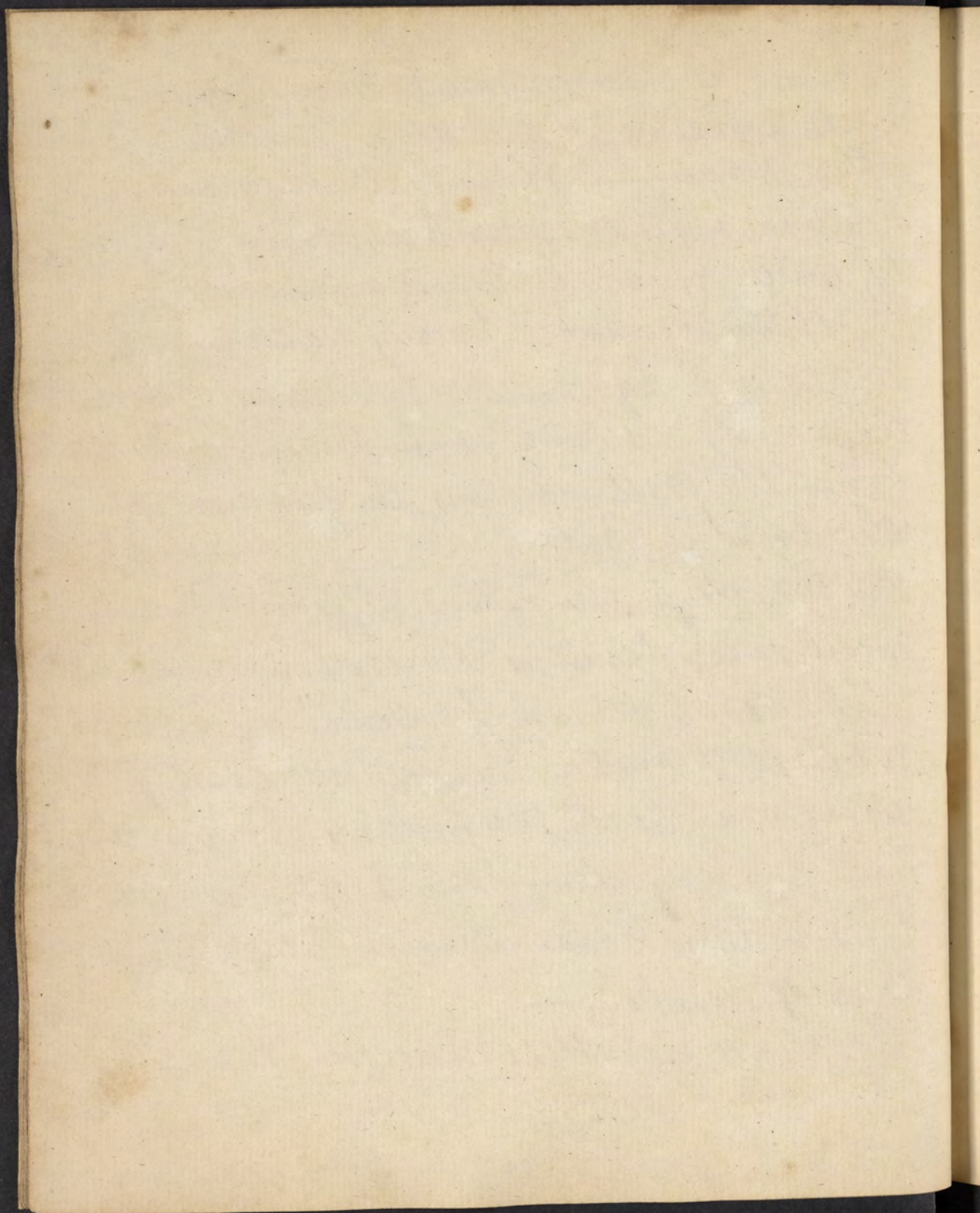
In accidents of this kind, mistakes are often made. If the patella has fallen or received a blow on the arm, or if any deformity exists, we are to suspect a fracture.

If the accident is merely luxation it can be removed by making extension & counter extension. As soon as the bone slips into its place the patella resumes the function of the arm. But

In Fracture the case is different, the treatment is the same as if both bones were broken.

The ulna is seldom broken alone, but when it is broken the accident is easily discovered, as the integuments covering the bone are very thin. The treatment is the same as those above described, it unites in 3 or 4 weeks.

Fractures of the Olecranon sometimes

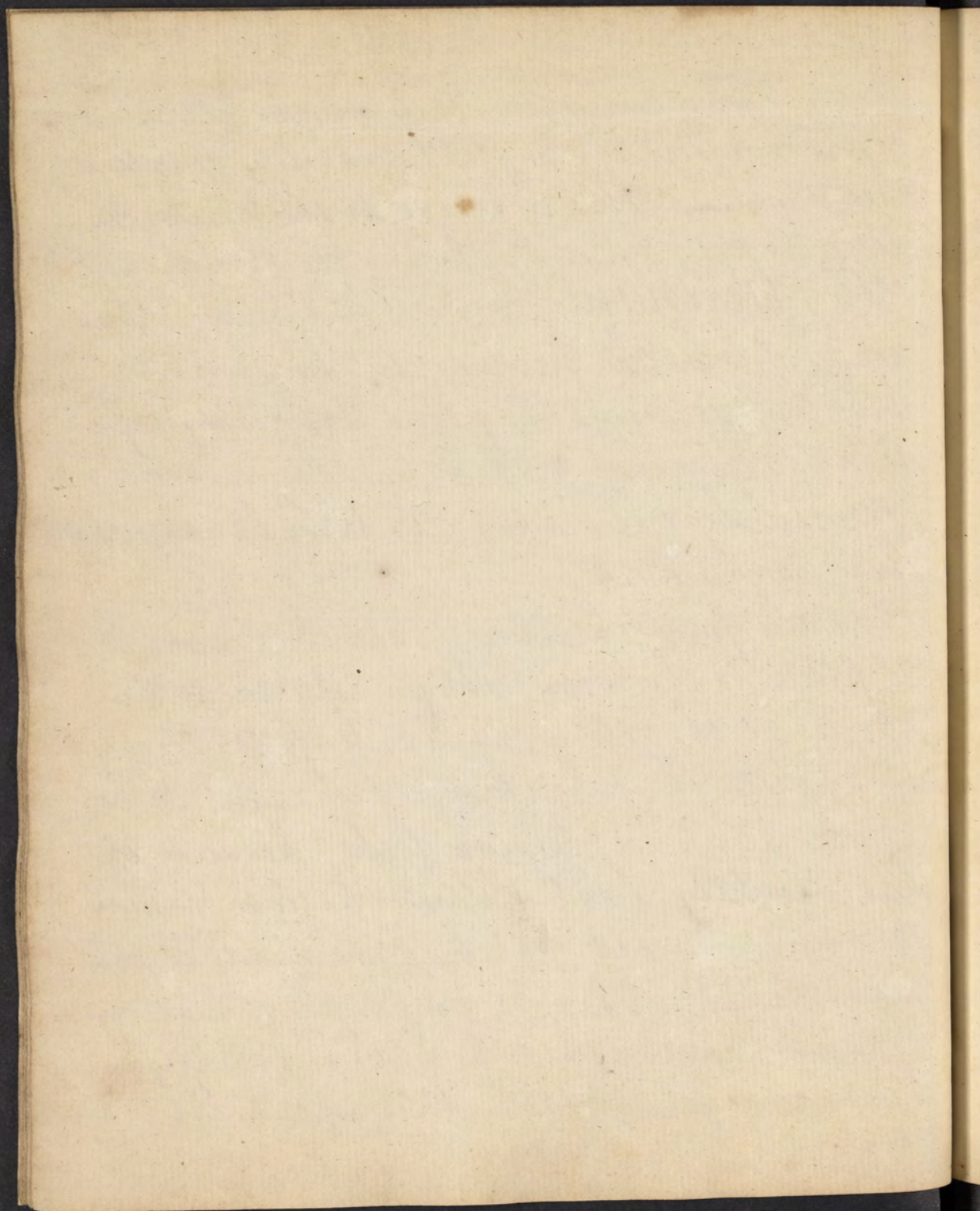


occur & are caused by falls on the Elbow & is discovered by the patient's inability to extend his Arm — This is owing to the triceps ceasing to act, or rather losing its power.

The Treatment consists in passing a bandage from the Hand to the Shoulder — A Splint is now to be placed anteriorly to prevent the flexion of the Arm, this is to be secured by returning the same bandage that was carried up.

In the first instance when the roller is applied to the Arm, oblique Casts are to be made at the elbow, so as to keep the olecranon in its proper place, these ought to be neatly applied & drawn tight, because if but slightly braided, their action which is oblique will not be sufficient to confine the olecranon in its proper situation.

Some attention is to be applied in applying this bandage, lest the skin should be



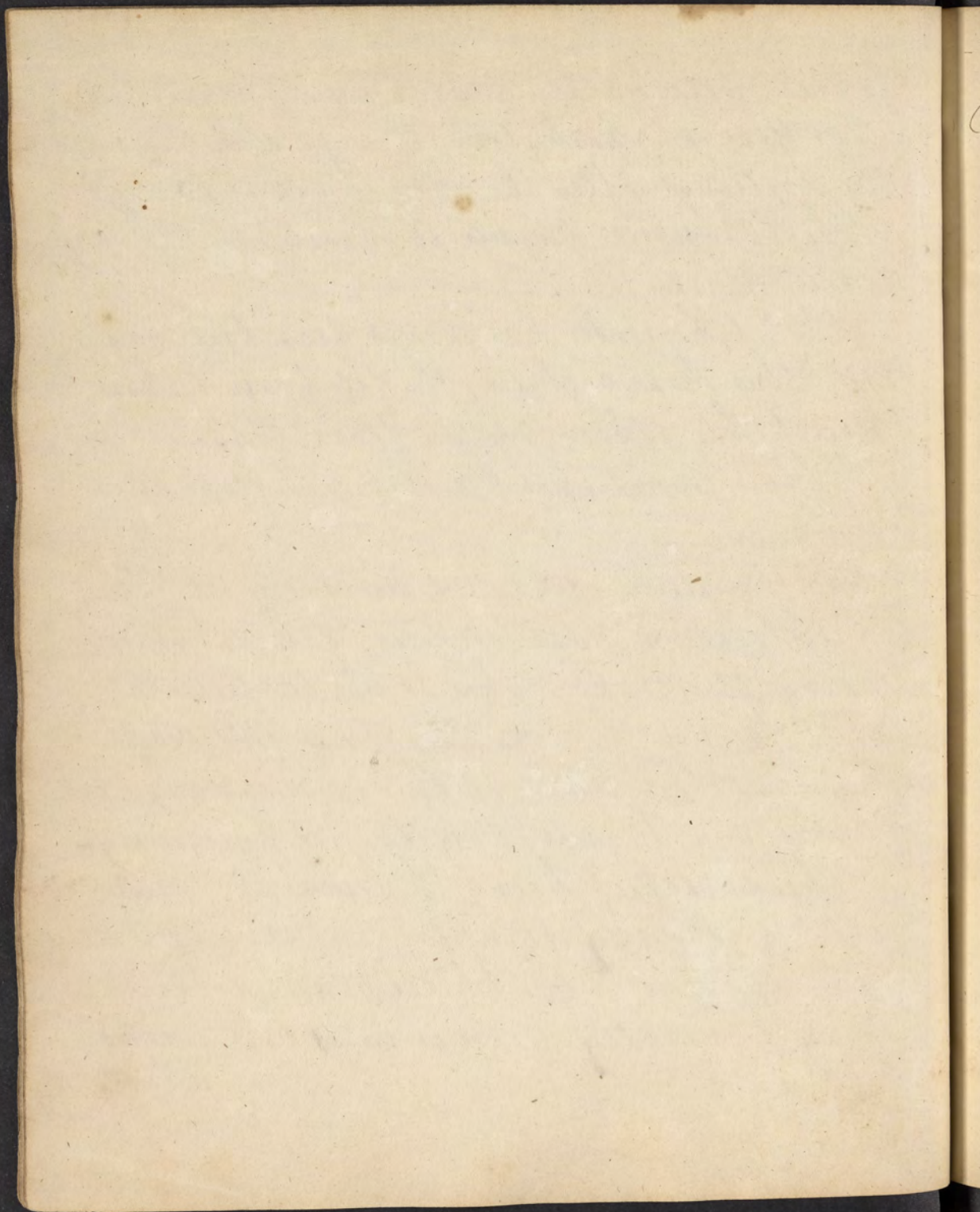
forced between the fragments. —

For fear of Ankylosis it is proper to remove the dressings & flex the Arm in about 15 days
The Coronoid process is sometimes tho' very rarely fractured. —

D^r Physick has never seen but one case & this was a Child, the fell from a chair & struck his elbow on the floor, Fracture as above mentioned & dislocation was the consequence. —

The fracture was not discovered at first, the dislocation was reduced, & the D^r about leaving the room when to his surprise he again found the Arm Luxated. — He was somewhat surpris'd at this circumstance, as it was one he never witnessed previously. —

The mischief being known the treatment was very simple, Angular Splints were applic'd & the Child soon recover'd
They generally recover in 4 or 5 weeks. —



Fractures of the Hand

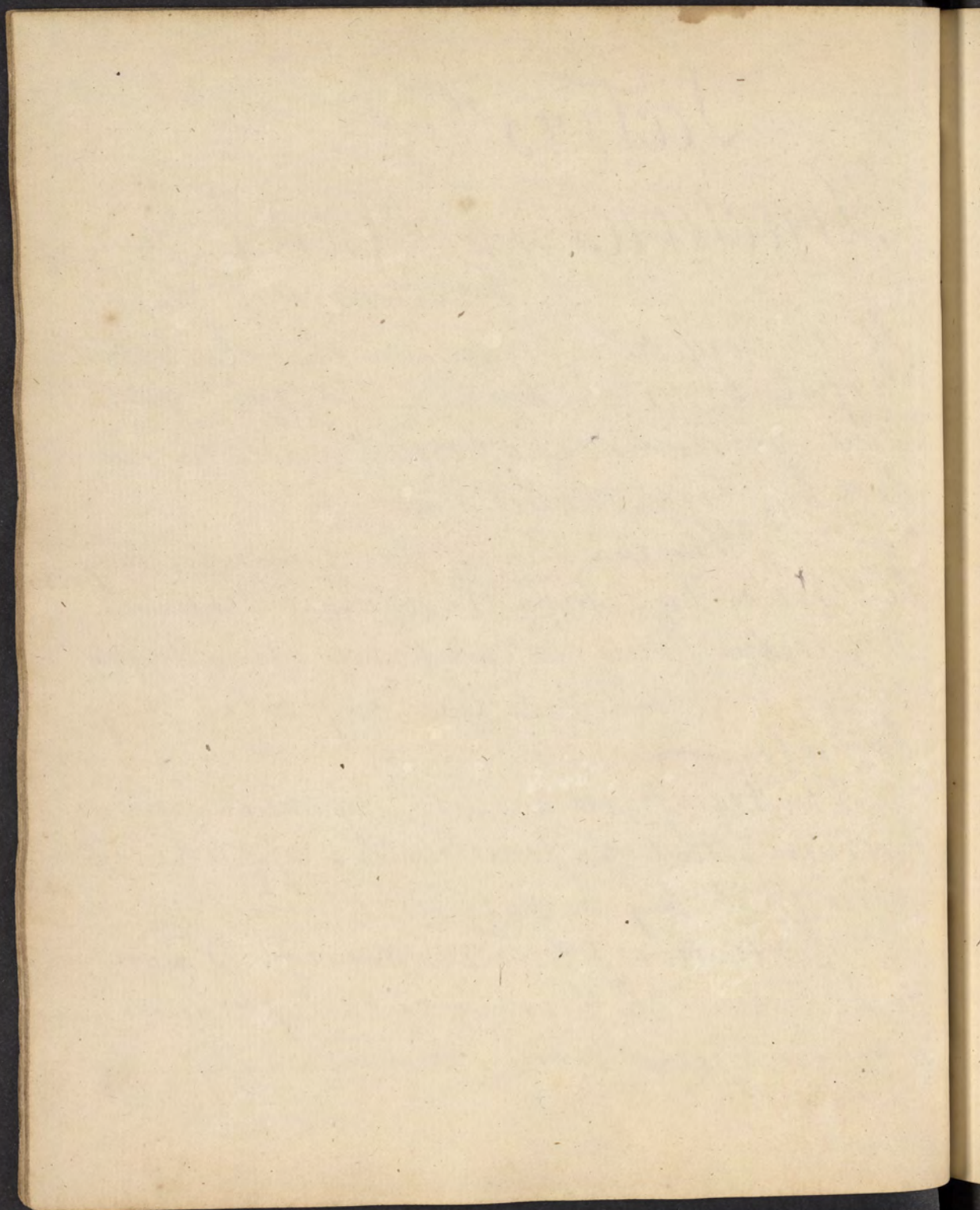
Fractures of the Hand.

It is a very rare occurrence that the Mete-
Carpal bones are broken — yet this occur-
rent sometimes take place & is usually cau-
sed by force applied.

The existence of this fracture, may
be known by taking the external & internal
metacarpal bones in our hands & then bending
them, in addition to this, Crispitation may
be heard.

The soft parts are usually much injured
& require attention, some cooling application
will probably be sufficient.

Extension & counterextension is here
to be made & the fracture is easily reduced,
a Carol's splint & roller are now to be applied



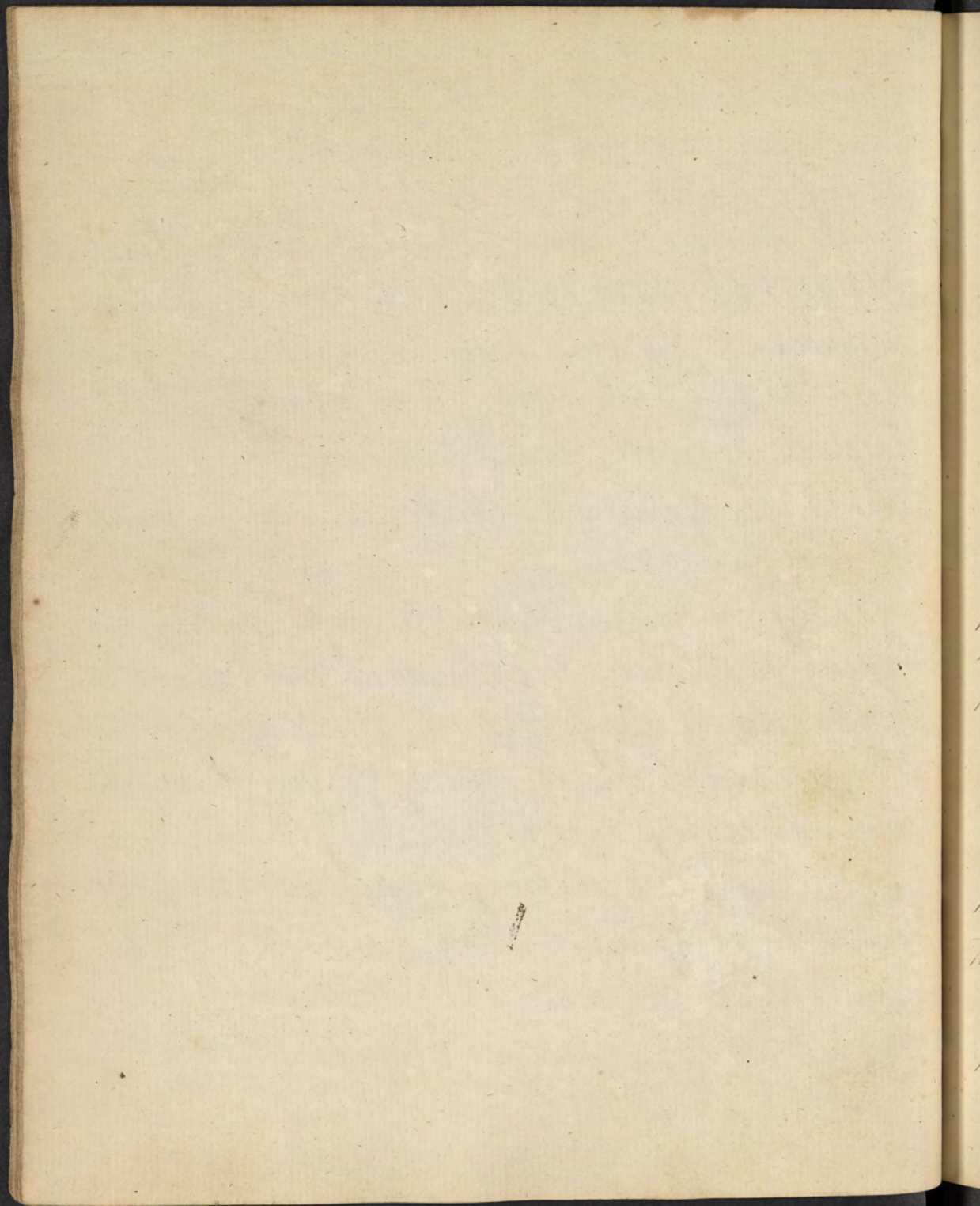
29.

In the course of 2 or 3 weeks a reunion will generally take place & little inconvenience will be experienced. —

It is still a more rare occurrence to find Fingers Broken & when so the fracture is compound. — In these cases so much injury is done to the bone & soft parts, that practitioners seldom hesitate, but decide that the extremities of the finger or the finger itself must be lost. —

Fully impressed with the impossibility of saving the limb, we think it most advisable to proceed to Amputation, at the time of the accident. No doubt many fingers have been unnecessarily lost in this way. —

Dr. P. is directly opposed to this practice & is of opinion that if there are any connection between the soft parts, however small it may be, an attempt should be

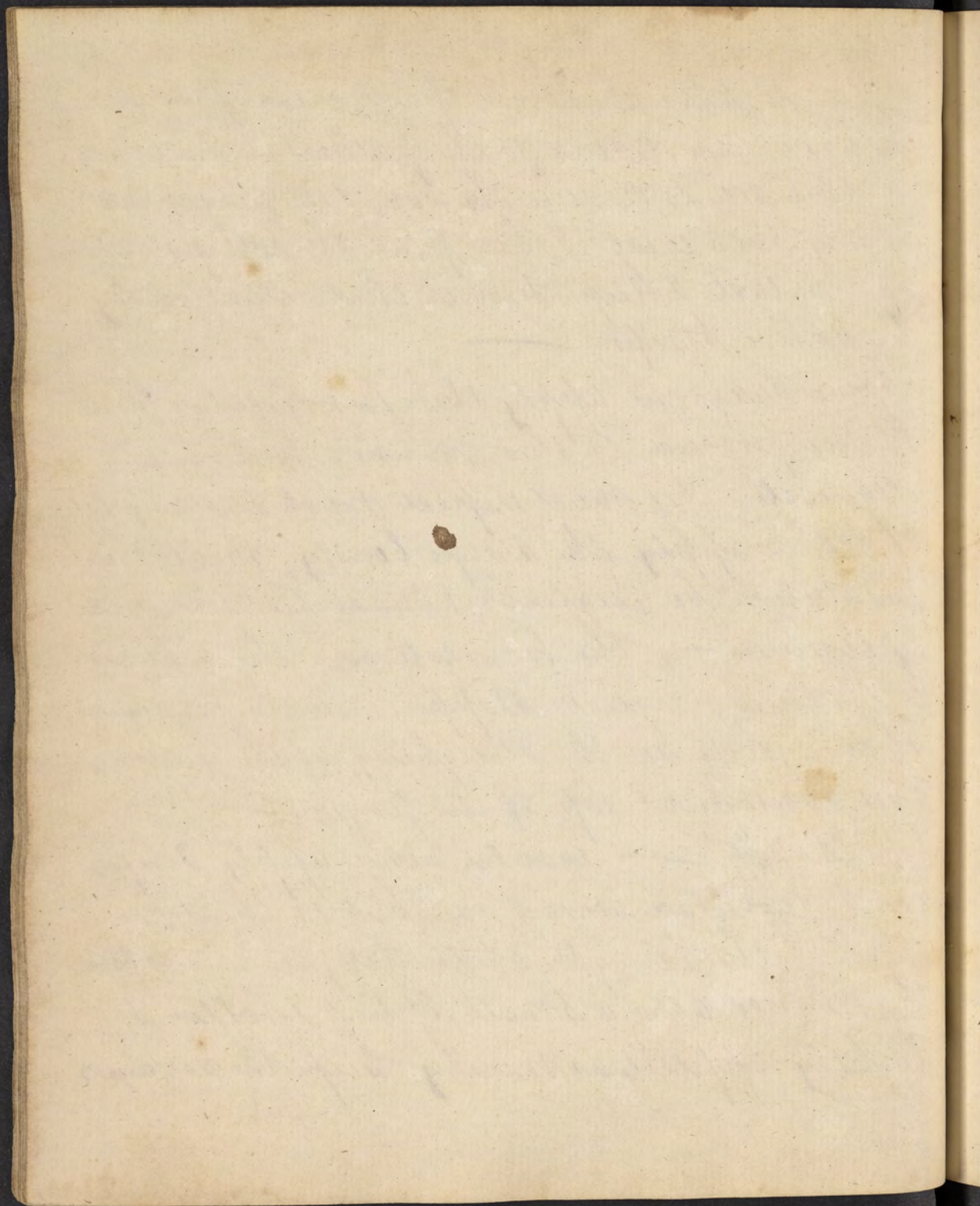


made to save the limb, particularly as no ³⁰
danger can result to the patient from it —

We are to reduce the bone & its fragments,
if any such exist, & then place the soft parts
in contact & keep them in that situation by
Adhesive Strips. —

Some Surgeons apply these in a circular form
If we proceed in this manner Caution is
 requisite, We must expect much swelling &
of course apply the strips loosely, should this
precaution be neglected & much swelling needs
by ensue. — The Circulation, which at best,
is languid, will be stopped, now the consequence
of this will be the sloughing of the parts;
and consequent loss of the finger. —

Dr. F. — would never apply Strips
in a circular direction, but in the direc-
tion of the length of the finger — to this
he would add a small Splint & roller so
lightly applied, as merely keep the dressing on



It has been above mentioned that these fractures are usually compound, so rare are simple ones that Dr P. has only seen but two cases, the treatment was precisely that already mentioned.

But if inflamⁿ. come on, the whole hand must be kept at rest by means of a splint carved such as Dr P. was in burns, this was necessary in one of the cases above alluded to.

Fractures of the Lower Extremities

1st of the Thigh Bone or the Femur is often broken and this may take place in every part.

Dr P. has seen it fractured within the acetabulum, he has seen the neck of the bone broken off — and separated from

Sometimes the weaker ^{may be} is fractured off.

the rest of the bone entirely +

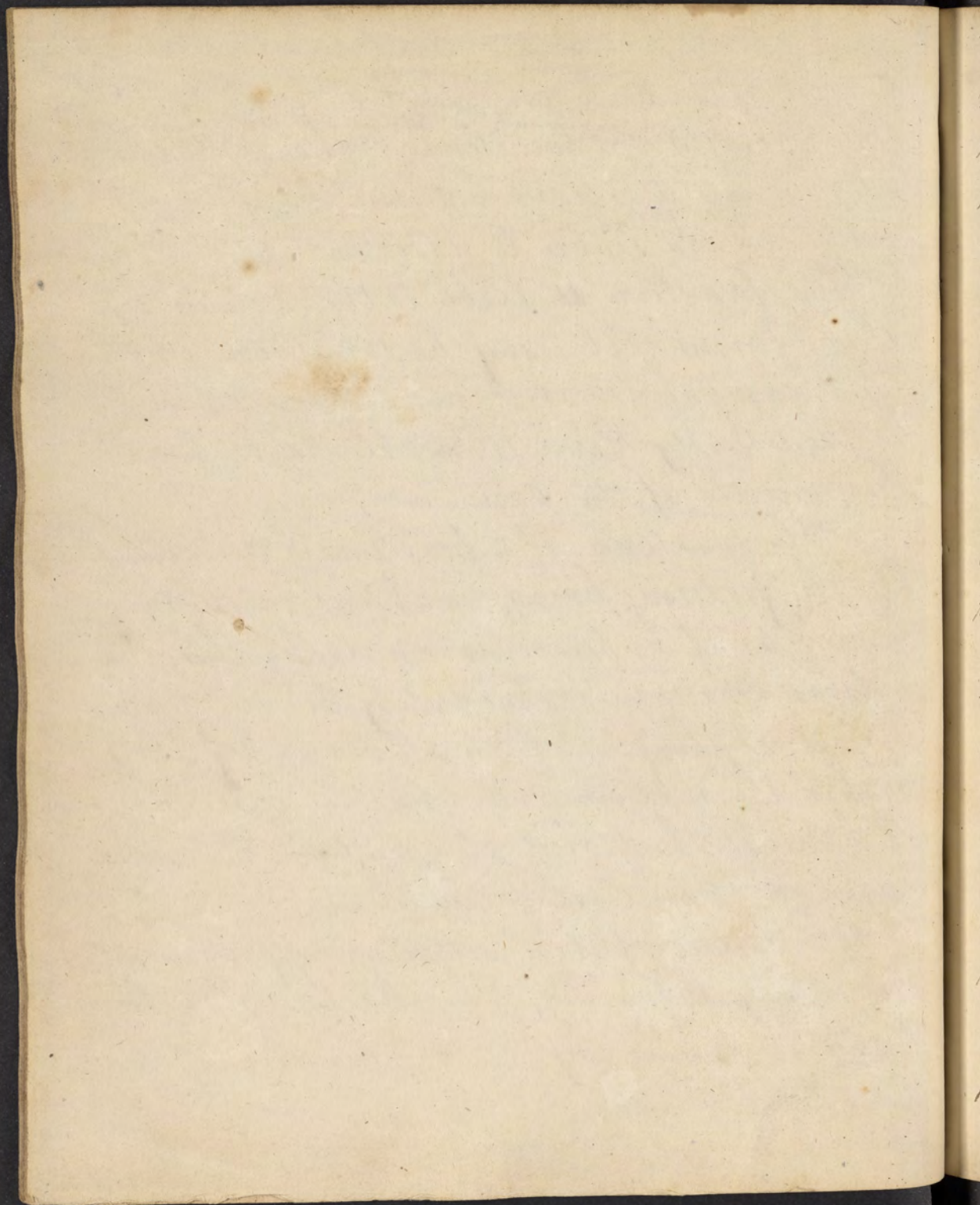
The Coracoid are sometimes broken & all the intervening portions between the Coracoid and Neck are liable to Accident. —

This fracture is liable to the varieties of other forms; it may be transverse or oblique, Compound or comminuted &c &c

We usually find them oblique & about the middle of the bone. —

The existence of a fracture is discovered by the patient being unable to raise the Limb, or if he succeeds in doing this, Convulsive Motions immediately occur, pain is felt at the part & it is shorter by 2 or 3 Inches than the sound one. — It may be bent at the point of fracture & form an Angular projection forwards. —

The Causes of these different appearances are easily explained, The shortning of the limb is caused by the contraction of the



Muscles on the posterior part of the thigh being stronger than on the anterior part & the leg is turned out by the weight of the foot.

The Surgeon has therefore to counteract the shortening of the Limb.

2nd The Angular projection.

3rd The tendency of the foot outwards.

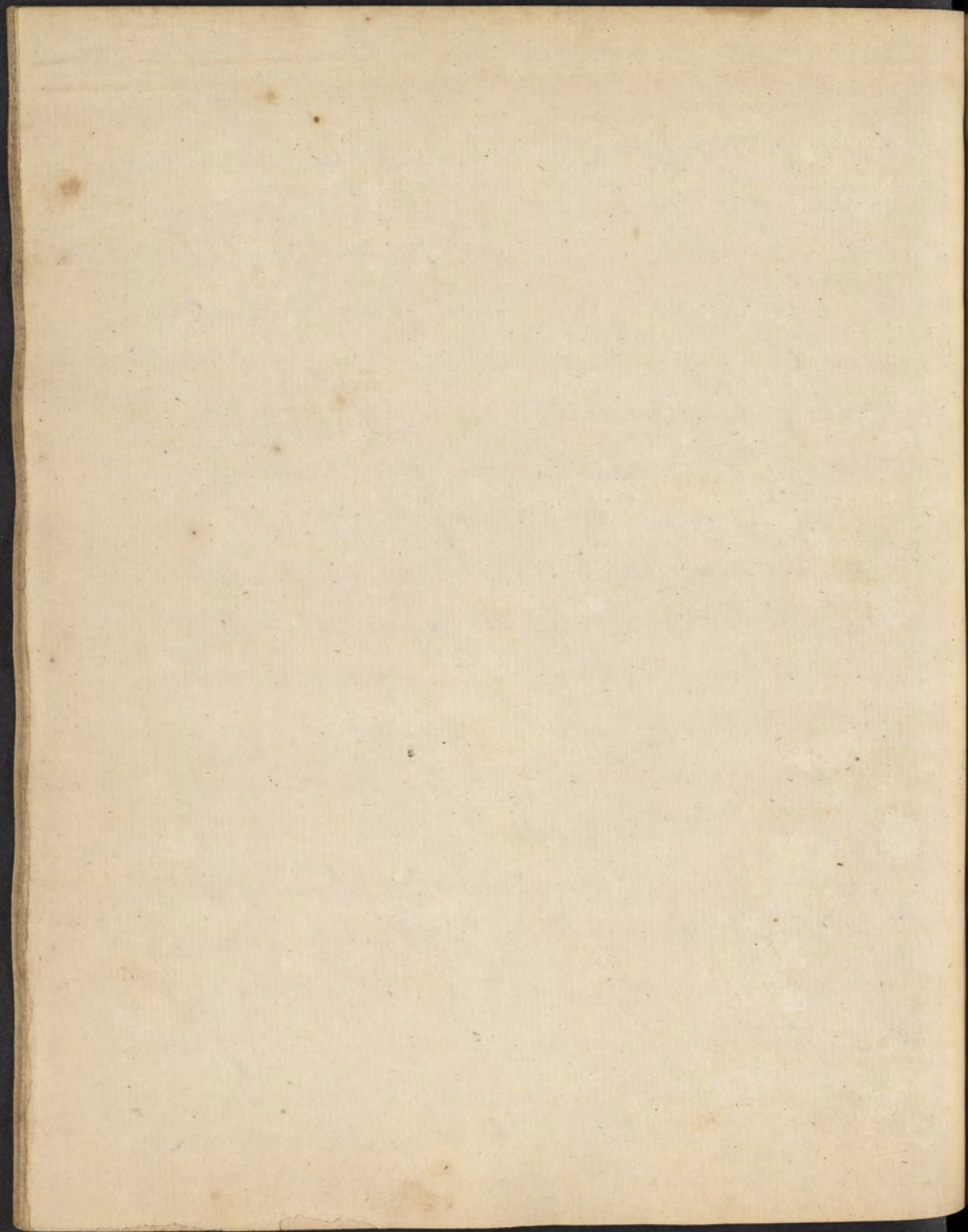
To effect these different purposes, many different modes have been recommended, these it would be useless to detail, & that only will be noticed which has been most beneficial - this is the Treatment introduced by Desault & enforced by D^r. P.

The first thing, to be done, is to procure a suitable place, for the part to rest upon; a feather bed should never be used for this purpose, because, altho' it would be comfortable to the part at first, yet the feathers will soon be displaced and the

Doctor Physicks bed - is to be preferred -

patt. will be on the hard bed or Sacking, —
 A Chair Matress with a hole in the middle as
 directed by Sir J. Carse is the best Contrivance
 if it can be had — And the patt. should never
 be allowed to use no more than one pillow,
 because if his head is high the wile most
 probably be pushed down in the Bed &
 some displacement take place. —

It is always necessary to have the whole
 apparatus at hand & most of it on the bed,
 before the patt. is placed upon it; all that
 are requisite we will name in the order
 in which they are to be placed on the bed
 & sticking it well in — Several pieces
 of tape are to be placed, so as to be under
 the Patients Leg when he is placed on the
 bed, & next the Splint Cloth (so called by
 Surgeons because in it are wrapped the Splints)
 is to be spread, then a past board splint,
 next a bandage of Stripes, a long Splint

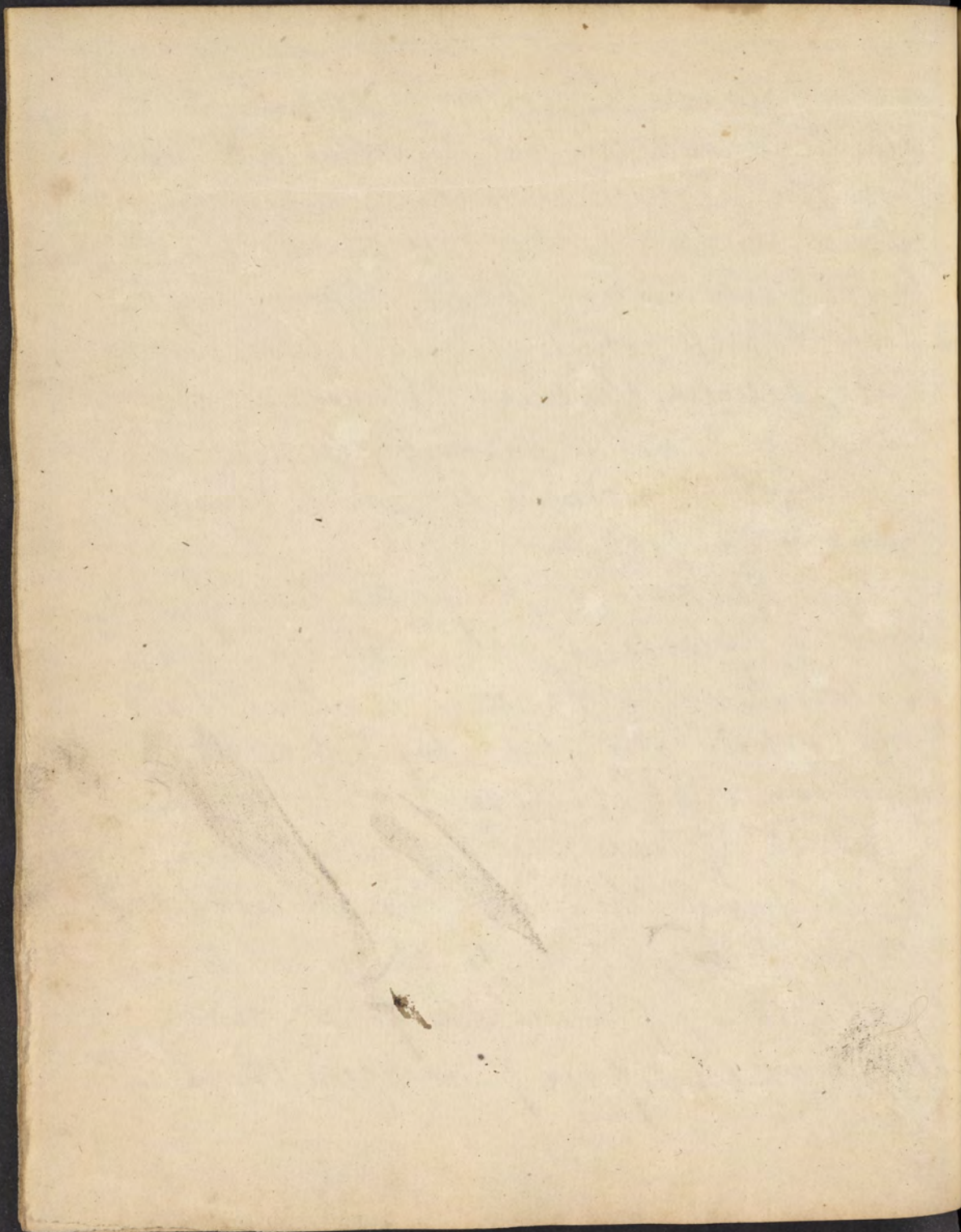


reaching from the Axilla, to a considerable distance beyond the foot, & another extending from the Perineum to the same distance beyond the foot as that last mentioned.

A counterextending band, which may be a silk handkerchief is now passed over the grain, between the thigh & scrotum, & the extending band is made by passing a handkerchief around the ankle & tying it under the foot.

The bandage of Strips are first applied the long splints is now rolled up & the counterextending bandage is passed thro' the mortice holes at the top & secured, the extension is at the same time made.

Both Splints being neatly rolled up & applied the interstices are to be filled up with bags of chaff the whole to be completed by placing the past board splint on the upper part of the thigh.



36

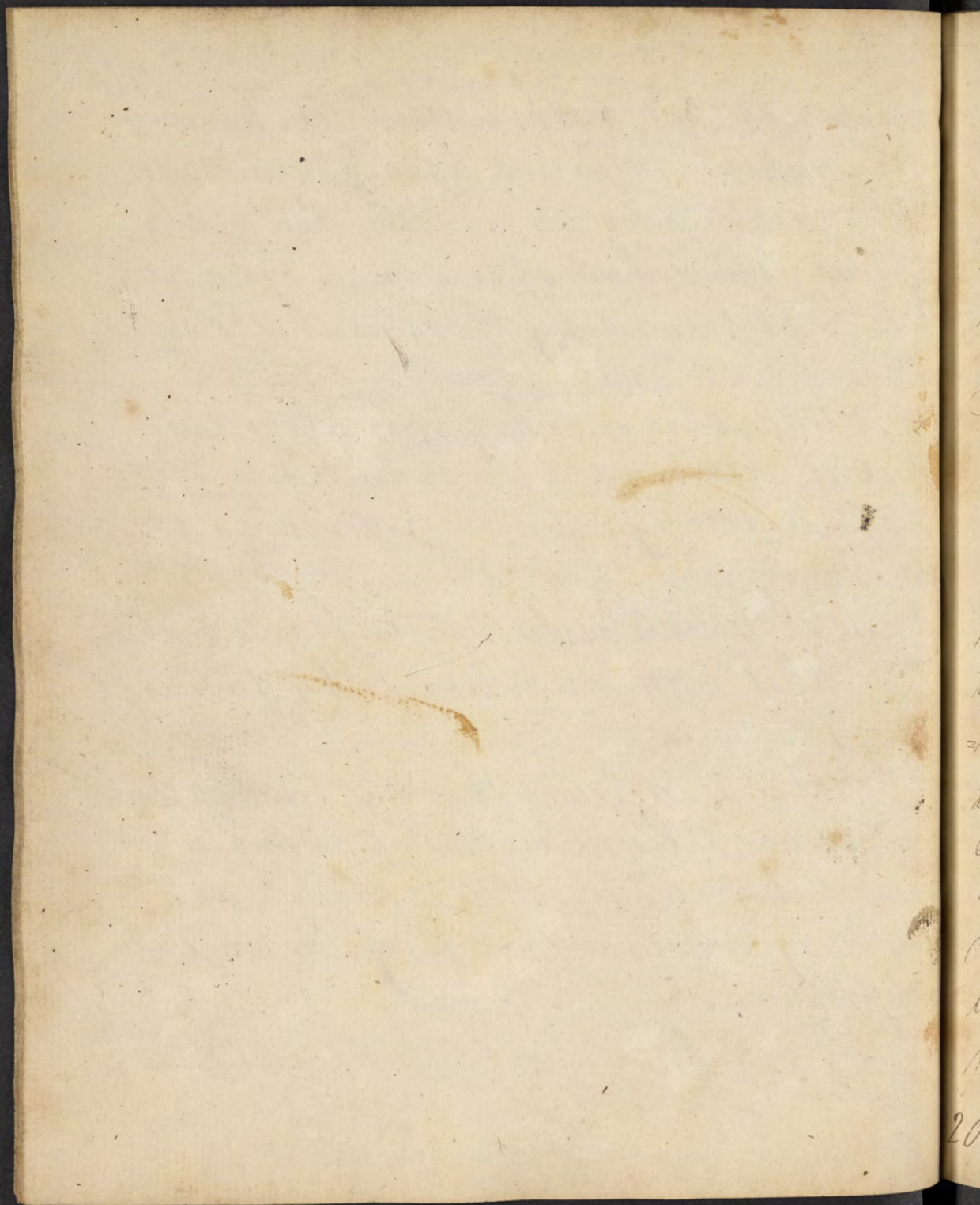
Similar to that at the bottom, the bandage
for making extension being passed thro'
the mortice holes at the lower end of the
splint, the whole operation is complete,
& is to be secured by the tapes that were
first placed on the bone.

A Bandage is to be passed above the
pelvis or around it in order to keep the
splints steady, tho' not so tight as to
inconvenience the part.

In Accidents of this Nature, it is to be obser-
ved, that little can be learnt by feeling
the Fracture.

When it is found that the Limb (after
extension & counterextension is made)
is of the same length as the sound one
we may conclude that the parts are in
opposition.

It will be advisable to examine the



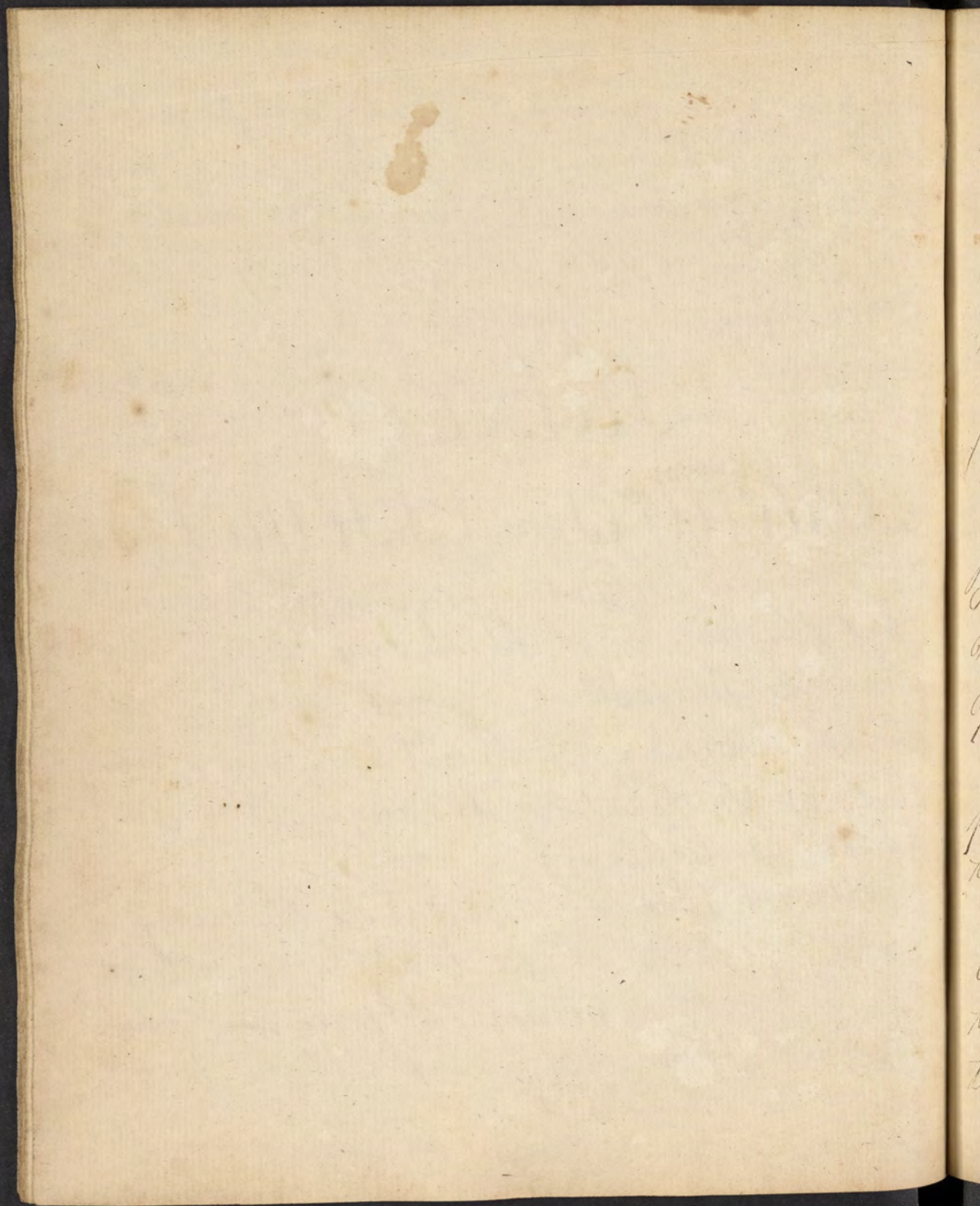
Anterior & Superior Spinous process, and observe whether a line drawn from one to the other is direct, if so, the pelvis is not twisted & this adds to the certainty of the bone being in apposition.

Sect: 26th

Fractures of the Os Femoris Contd

It not unfrequently happens that the action of the muscles is so great, that the Surgeon experiences much difficulty in reducing the bone, and even after this, if the fracture is oblique it will again be displaced.

Under such circumstances the unexperienced practr is apt to apply the extending band, with considerable force — the patient soon complains & if the force



be continued inflamⁿ. & exco^riation will be the consequence;

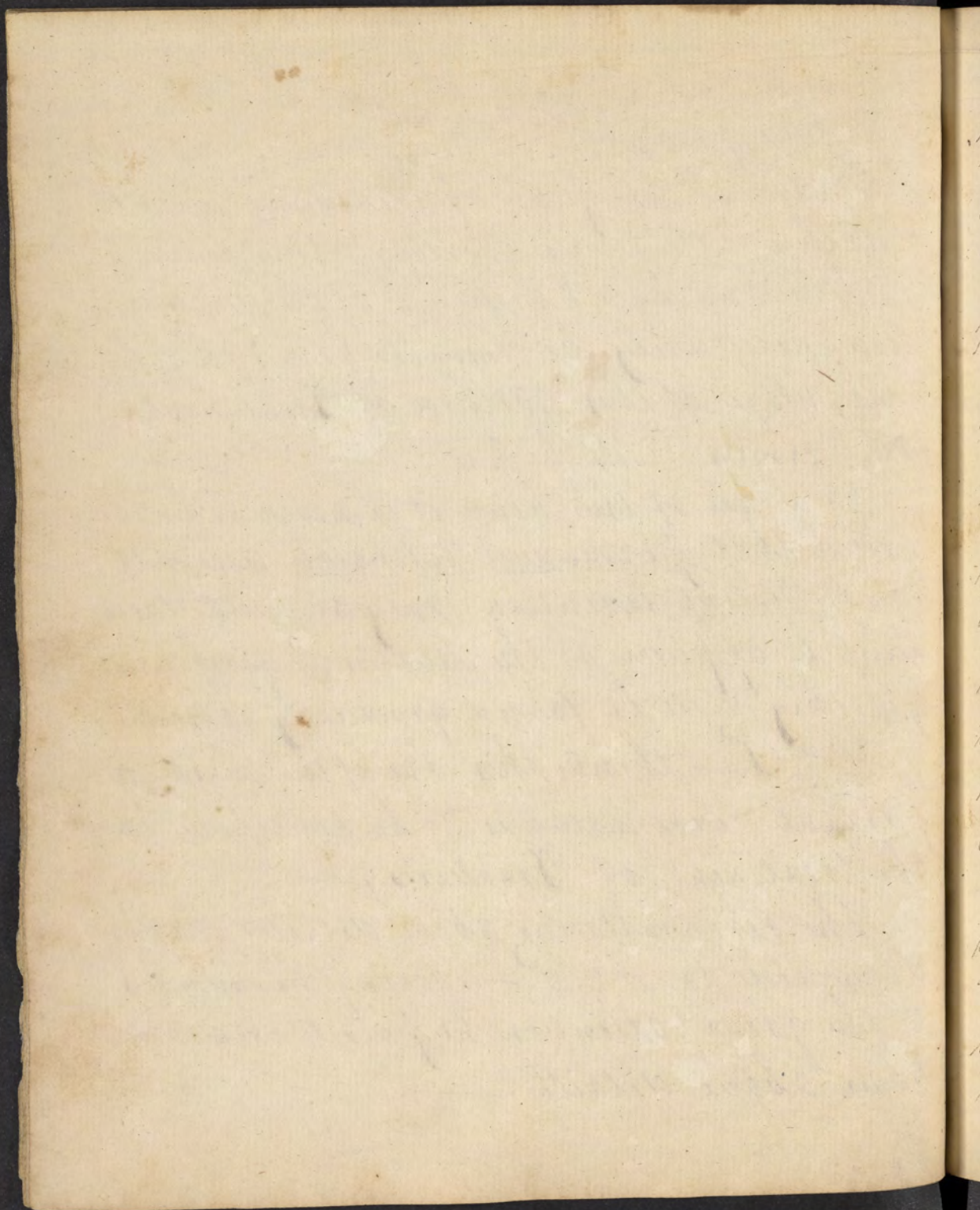
Continue this plan of treatment a little further & the parts mortify & slough.

The bandages & dressings of all kinds must now necessarily be removed & thus the whole advantage of this method of Treatment (w^oz Defaults) will be lost.

In a case of this kind it is never to be forgotten that permanent extension does not mean violent extension, only so much force must be applied, as the Muscles at first resist, yet they will be found gradually to yield.

Dr. P. thinks this one of the most important Circumstances to be considered in the treatment of Fractures.

The Circumstances above detailed never occurred to Dr. P. owing he thinks to the great attention he paid to the directions above detailed.



previous to the application of the extending
bandage it will be proper to Moisten the parts
with Spirits. — In addition to all this

The band should be relaxed every day & the
part rubbed with flannel or flesh brush,
this acts as a stimulus to the vessels & increases
the activity of the circulation, which was
previously languid. —

In Children excoriation is apt to occur
in consequence of the parts being continually
wet by the evacuation of Urine, to avoid
this cover the parts with soft buckskin,
the counterextension Band to be of the same,
stuff it with horse hair & dip it in warm
oil & bees wax, it will be soft & set easy —

D^r Physick's improvement on Desault's
Splint is attended with many advantages —
and in the first place. The splint of De-
sault being little longer than the limb
the strap or band for counterextension

Doctor Phynick has rejected the Cruel like extremity

40
passes over the Os femoris at an oblique
Angle & has a tendency to draw the upper
fragment outwards, On the other hand - Dr
P^r acts upon the Pelvis in a line nearly
parallel with the natural direction of
the Limb, this is owing to the counterstencing
bandage attached to the mortice hole near the
Achilla - part of the counterstencing force is
made at this place. —

+ The Crutch like extremity is to be covered
with flannel to prevent it rubbing the
soft parts. —

Fractures sometimes (as above mentioned)
take place at the neck of the Os femoris. —

It was the opinion of the Old Surgeons that
fractures of the neck were accidents of very
frequent occurrence & that luxations seldom
or ever took place, to this opinion many
Modern Surgeons have given their assent.

But Dr Physicks experience is directly

The fracture immediately below the trochanter major may be distinguished by the trochanter not moving at all when the leg is rotated.

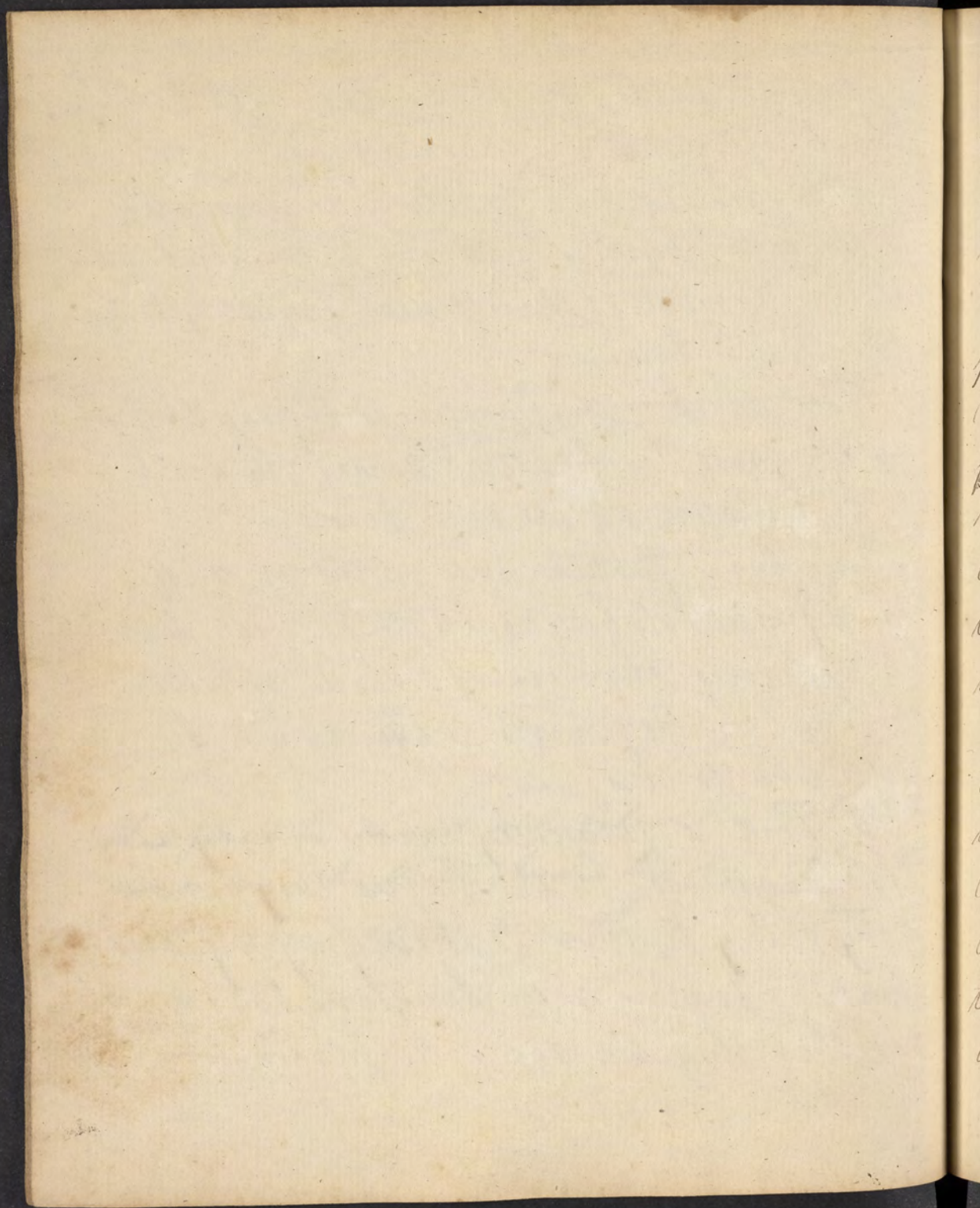
opposite to this, he thinks, luxations occur ⁴¹
much oftener than fractures.

The existence of a fracture is generally
determined by the shortning of the Limb, pain
at the moment of the accident inability to move
the Limb &c.

But the best diagnostic is to place the hand
on the great trochanter & direct the Limb
to be rotated on its own Axis.

This bony protuberance turns on itself as
on a pivot (whereas in its natural state
it describes the Arch of a Circle of which the
neck of the Os femoris is the radius - In
addition to this.

The foot is generally turned out; by taking
the fragments in the hands they can be
very easily reduced to their proper places,
But no sooner is the Surgeons hand remo-
ved than they are again displaced.

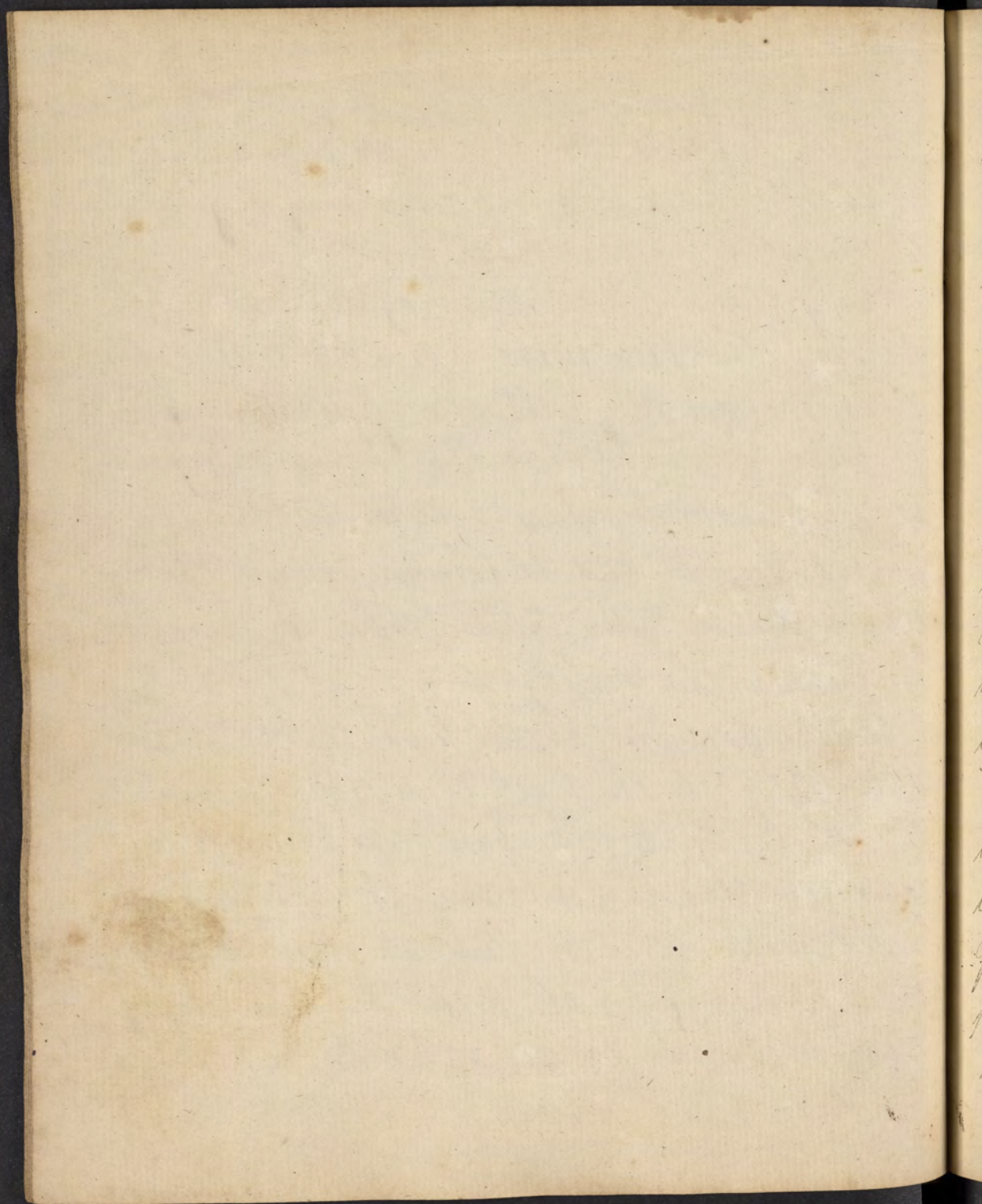


42

If the fracture be within the capsular ligament it often happens that there is no shortening of the limb & in this case 2 or 3 days may elapse before the fracture is discovered.

Some patients will walk very well during this period, the treatment is similar to that above recommended by Desaults apparatus; if the fracture be in the neck union will take place, but when the fracture occurs within the acetabulum a cure is seldom effected, Bony union never takes place when the fracture is within the cavity.

A case occurred of this kind to Dr. P. and after 10 years the patient had not received the use of the limb (the bone was shewed to the class) in this case nature, as was found after death, was making an effort to supply the deficiency; for the neck had been totally absorbed. In all cases in which much



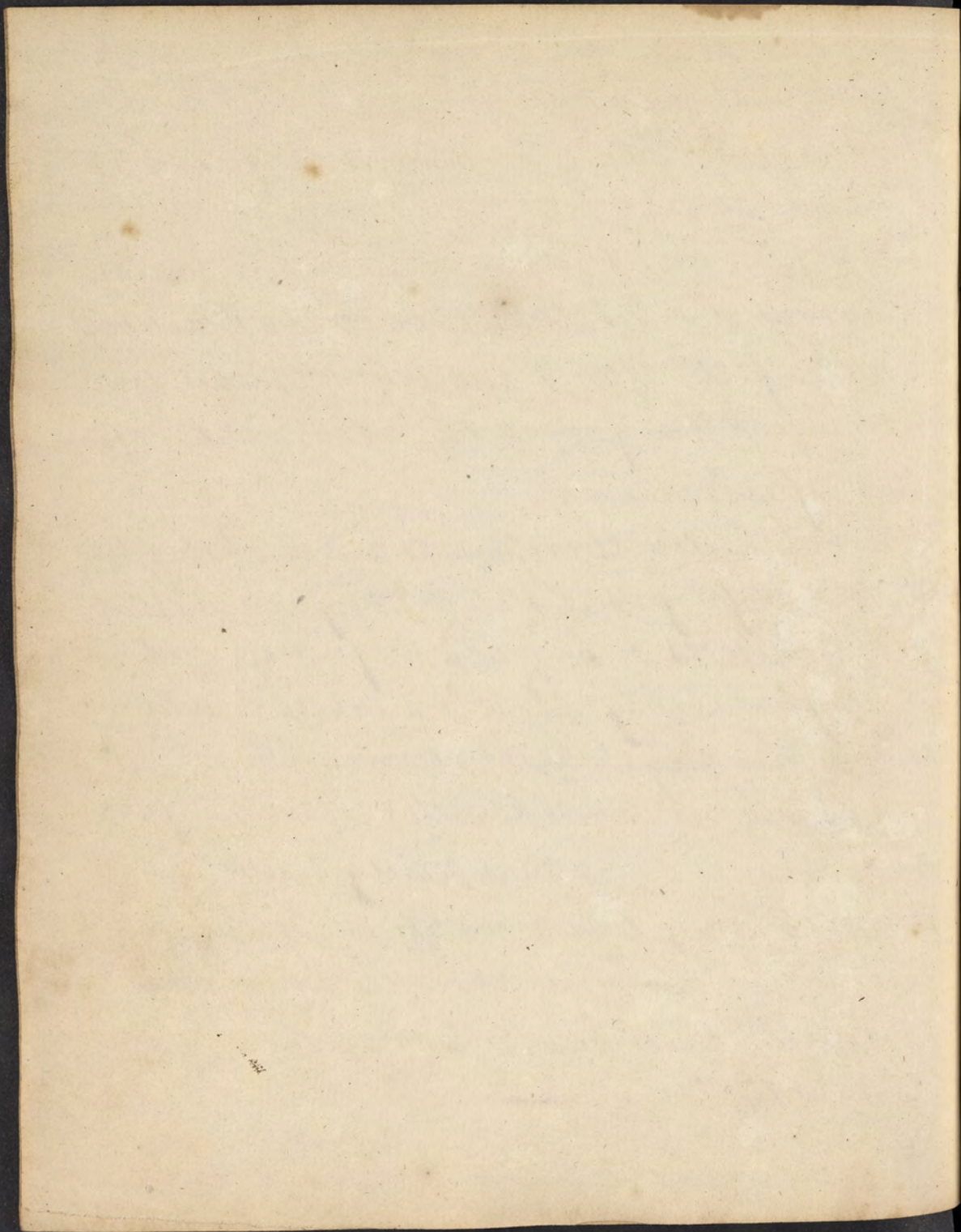
43

injury has been received at the hip joint,
the Surgeon should be cautious in giving his
opinion.

Dr. P. has seen a case in which several
Surgeons decided that there was a fracture.
But the part. after a few days removed the
bandage & thus proved the incorrectness of
this opinion.

When called therefore to a case of this sort
it will be proper to state to the patient, that
no fracture is to be found at present, yet
in all probability there is a fracture, but
that a few days will determine it.

If the case is at all doubtful it will be proper
to treat as if a fracture really existed, for if
it prove only to be a contusion, yet the per-
fect state of ~~the~~ rest that will have been
preserved, will be of much advantage to
the contusion.



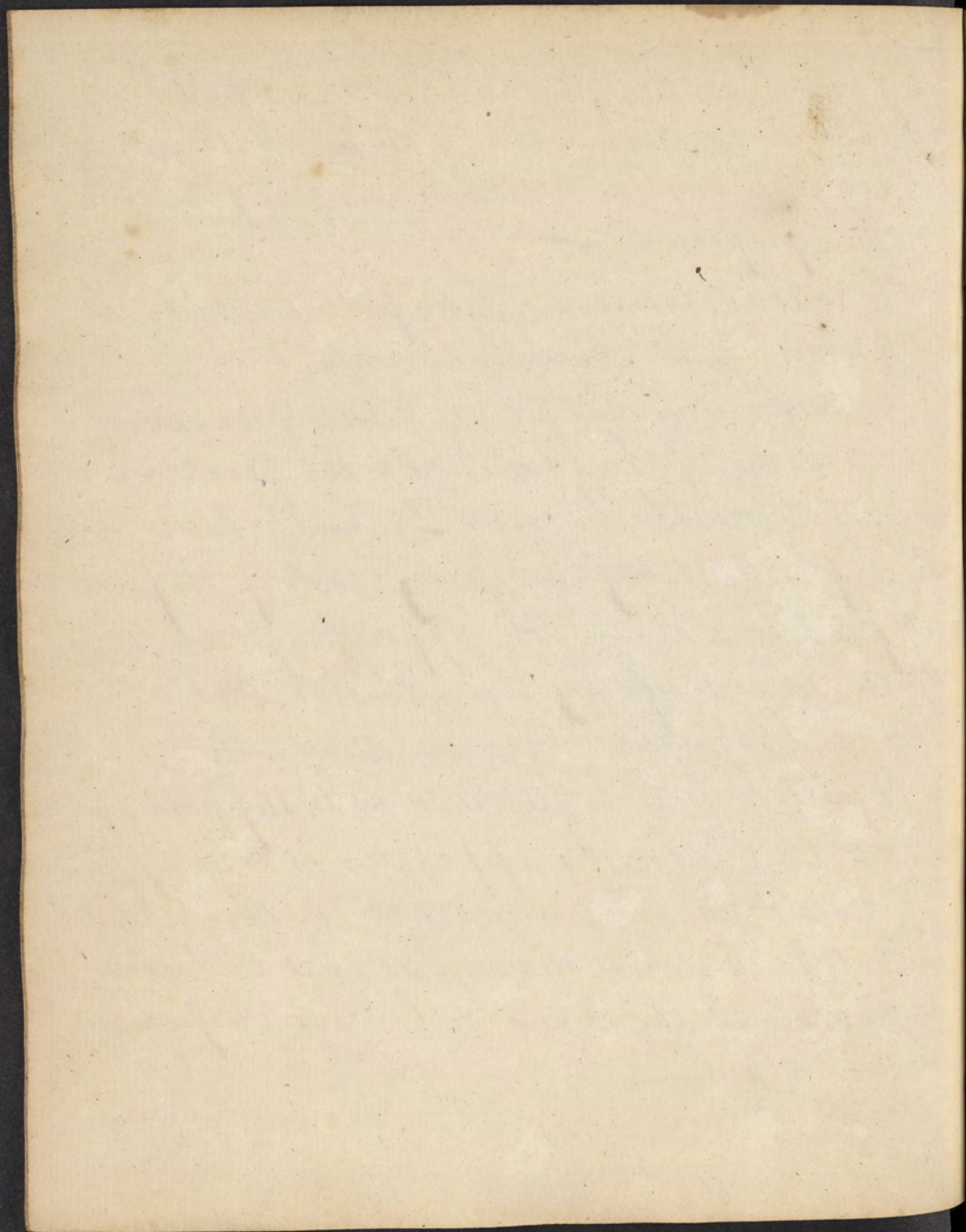
44

It is of great importance to distinguish
between a fracture of the neck & luxation,
much attention of course is necessary to be paid
to the symptoms. —

Fractures sometimes take place low down the
Os femoris, just above the condyles, & the
Treatment does not at all differ from those
of the body of the bone, unless the fracture com-
municate with the joint — In the latter case
it is particularly necessary to keep the parts
at perfect rest. — The upper fragment is
often drawn up by the extension, while the
lower fragment is drawn down —

A pillow is to be placed so, as to support the
Leg, & then Desaults apparatus is to be applied;

It is to be recollected, that the thigh & Leg
is not in a direct line, but that the former
converge at the Knees & the Leg, are parallel
to each other. —



In applying these splints, a chaff bag is to be used to fill up the insusties.

It is always to be kept in mind that our object is not so much to make a Strait Leg, as a natural one.

One great reason, why the method of treatment laid down is not in more general use is, that few practitioners are acquainted with its mode of application.

Mr. Bell evinces by his observations that he never saw the Apparatus applied.

Mr. Pott recommends the best position & urges his arguments with considerable plausibility. But Mr. P. has seen it tried, and it is by no means so advantageous as the above noticed, as introduced by Desault.

One great objection to the best position is that no part. can continue on his side for so long a time, as is necessary for the union of the Os. femoris.

- 1 The fracture at the middle known by the angular projection &c.
- 2 The Fracture above the condyle by the projection below the hamstrings.
- 3 The Fracture immediately below the lesser trochanter by the projection in the groin.
- 4 The Fracture between the trochanters, by the trochanter not moving when the limb is rotated.
- 5 The Fracture of the neck near the trochanter by the trochanter moving on itself only.
- 5 Fracture ~~with~~ of the head by the trochanter moving in the arch of a circle.
- 6 The Fracture off of the trochanter by its misplacement.

+ By passing the finger along the skin a swelling will be experienced at the place of fracture, if then the leg be bent a slight depression will be felt.

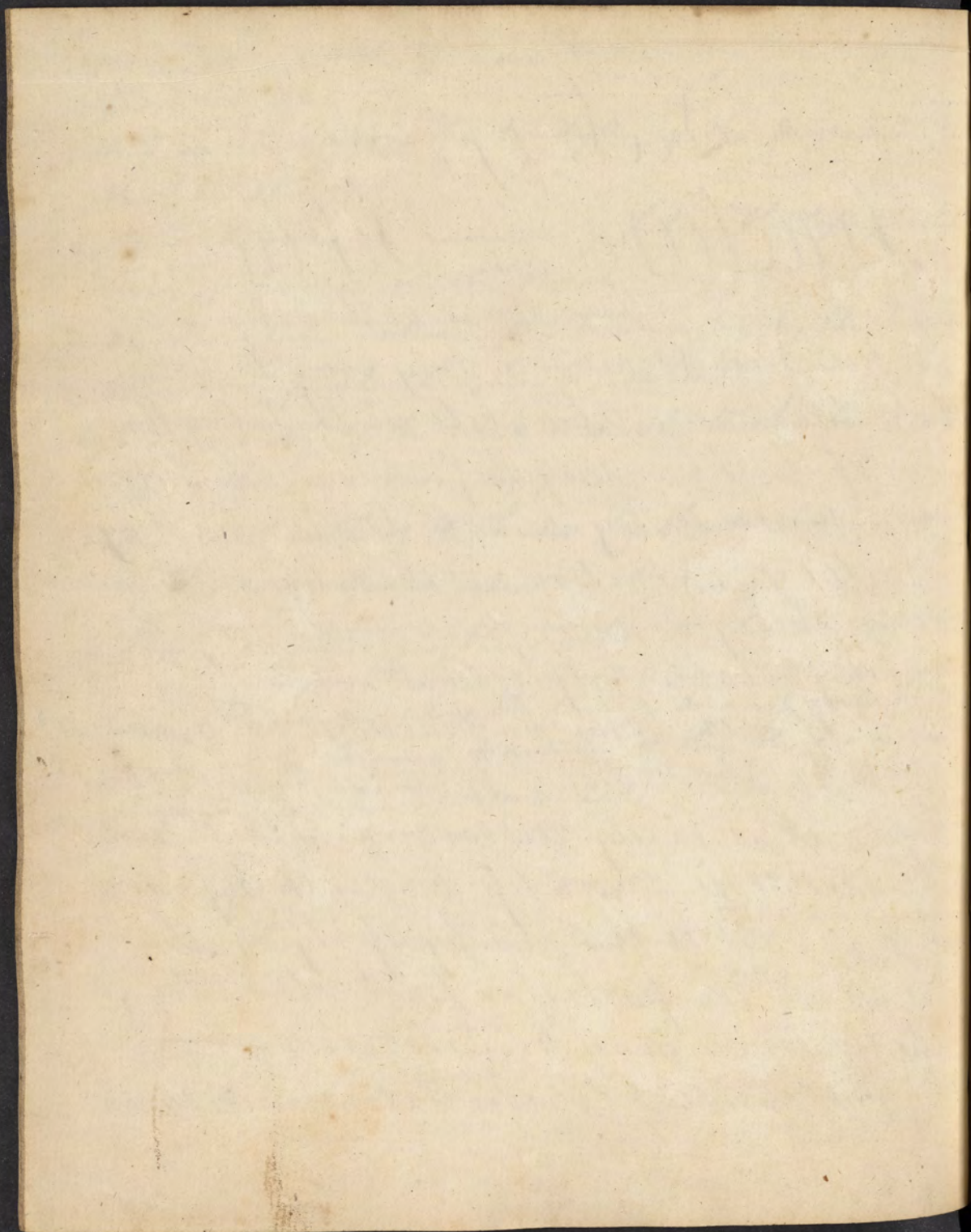
Fracture of the Tibia

Sometimes both bones are broken and sometimes only one. It may take place any where between the Ankle & Knee

If the Tibia only is fractured, the Surgeon will most usually be able to discover it by careful examination, as the integuments are very thinly covered, pain will be felt & most probable Crispitation.

If both bones be fractured the limb will be shortened. If the fracture be oblique it is easily discovered as the inferior fragments is drawn up under the superior one. But in this case by applying the hand at the posterior part of the Leg, the fracture may be discovered.

Extension & Counter Extension reduces



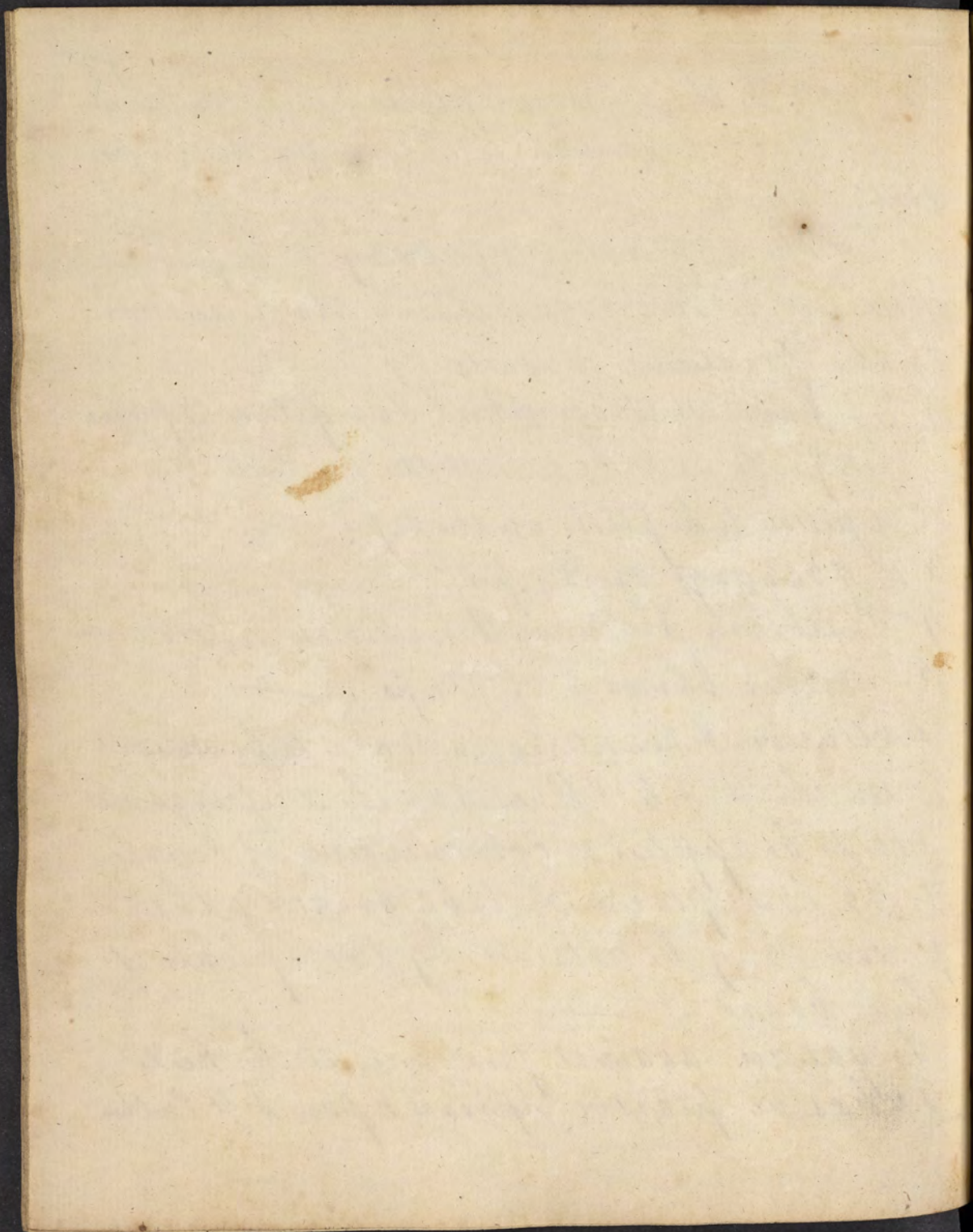
the parts to their proper places. & then they are ^{4th}
to be secured in this situation by Bandages
and Splints.

The Apparatus necessary to be prepared,
previous to our commencing the reduction
of the Fracture consists of

- 1st a hair Matras Sheet & place 3 pieces
of tape so as to be under the fracture
- 2^d A pillow to be placed on the tapes
- 3 A Bandage of Strips
- 4 Pastboard Splinters 2 soaked in water
- 5 Another Bandage of Strips.

Extension & Counterextension is to be made
from the Ankle & Knee and the dressings are
then to be applied, commencing of course
with last placed on table or bed, the
pillow may be retained by two splints of
thin board.

To guard against pressure at the heel
a adhesive plaster spread upon soft leather



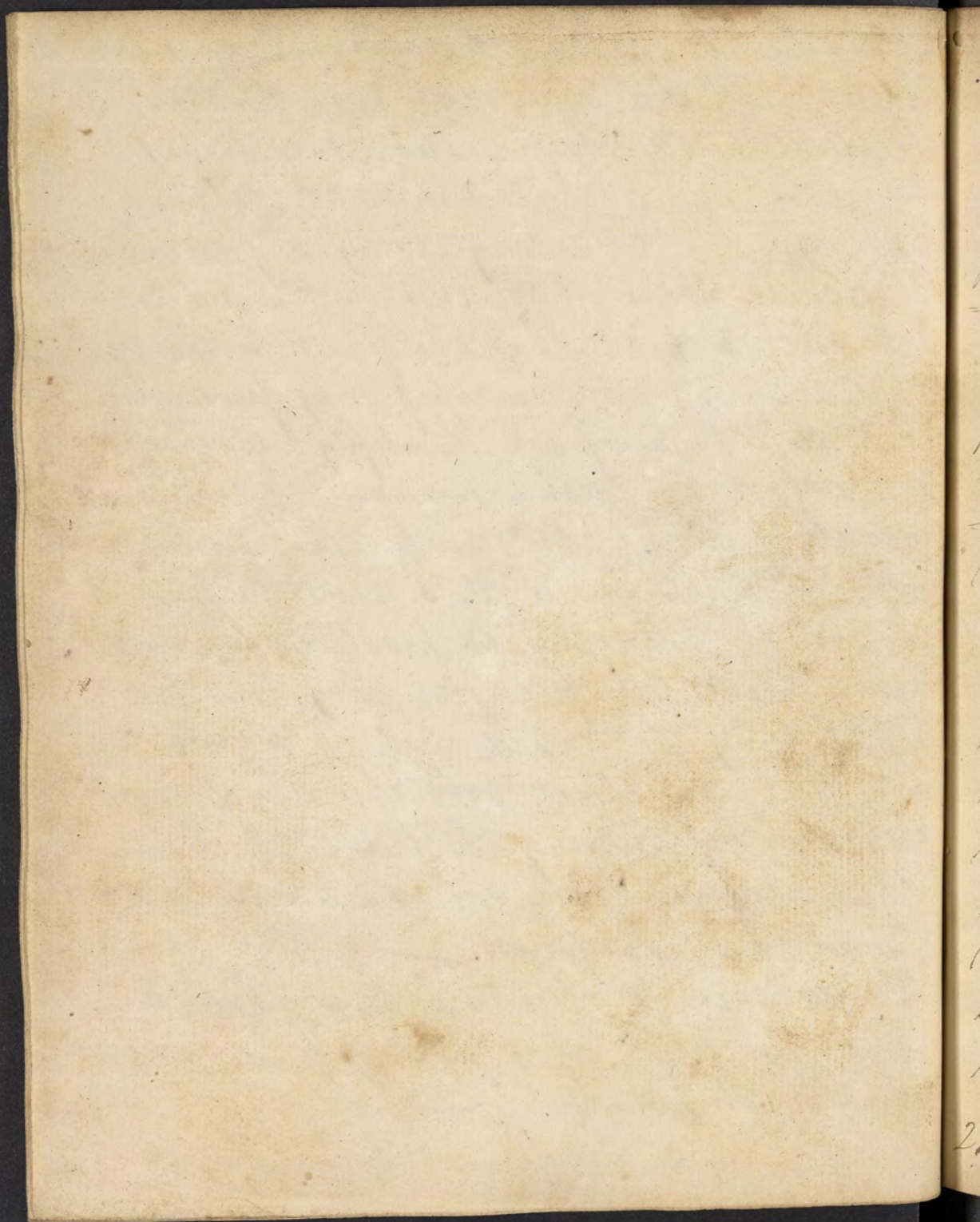
It applied at this part will sometimes be effectual. — The irritation sometimes increases and even ulceration & sloughing will ensue. — This may easily be prevented, by several folds of flannel with a small hole cut in it, so that the parts formerly pressed upon, are now completely protected.

It will be necessary to apply a bandage to the foot in such a manner as to prevent its slipping too much to the outside

If Inflammⁿ ensue O. S. must be had recourse to, Purging in proctives are always inconvenient & its place can very well be supplied by the Laxative. —

We may effect or rather assist this remedy, by raising the feet of the bee & thus retarding the circulation of the blood thro' the parts. —

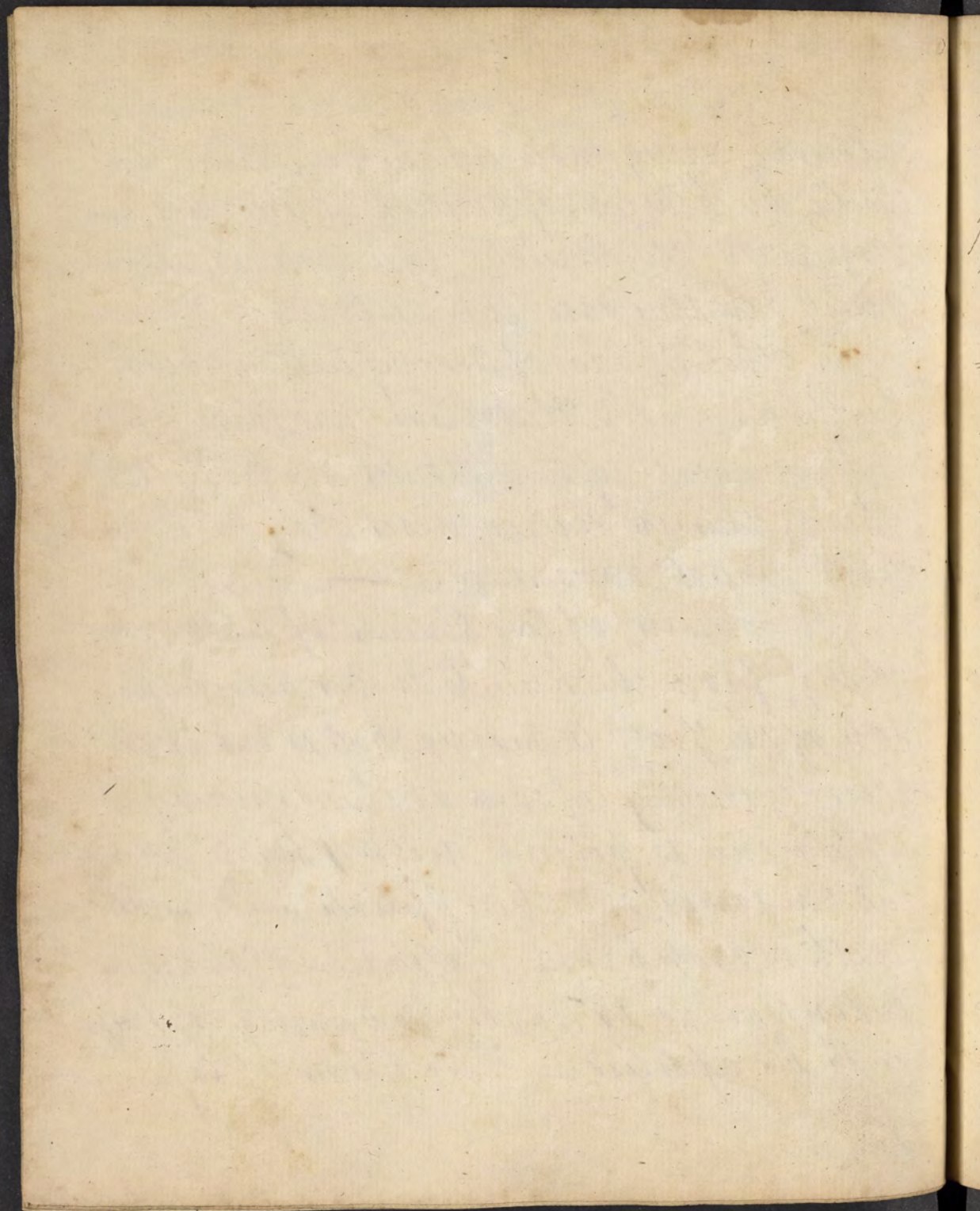
We examine it often to be sure, that there are no pressure upon the soft parts, as this would cause sloughing. —



49

The Treatment above detailed answers extremely well, provided the fragments can easily be kept in opposition — But not unfrequently the Muscles will cause a displacement & in this case it is desirable to propose some other mode of accomplishing our purpose. — Dr. Hutchison has made an improvement upon Desaults method of treatment, this in certain cases may be used with much advantage. —

It consists of two splints of wood reaching from the Knee to Inches below the sole of the foot. A mortice hole is cut in the lower extremity of each of these splints & the upper end is pierced with 4 small holes. — At the lower end these splints are connected with a cross bar. — Extension & counter extension is to be made, a bandage of Strops is to be applied — Two pieces of tape are



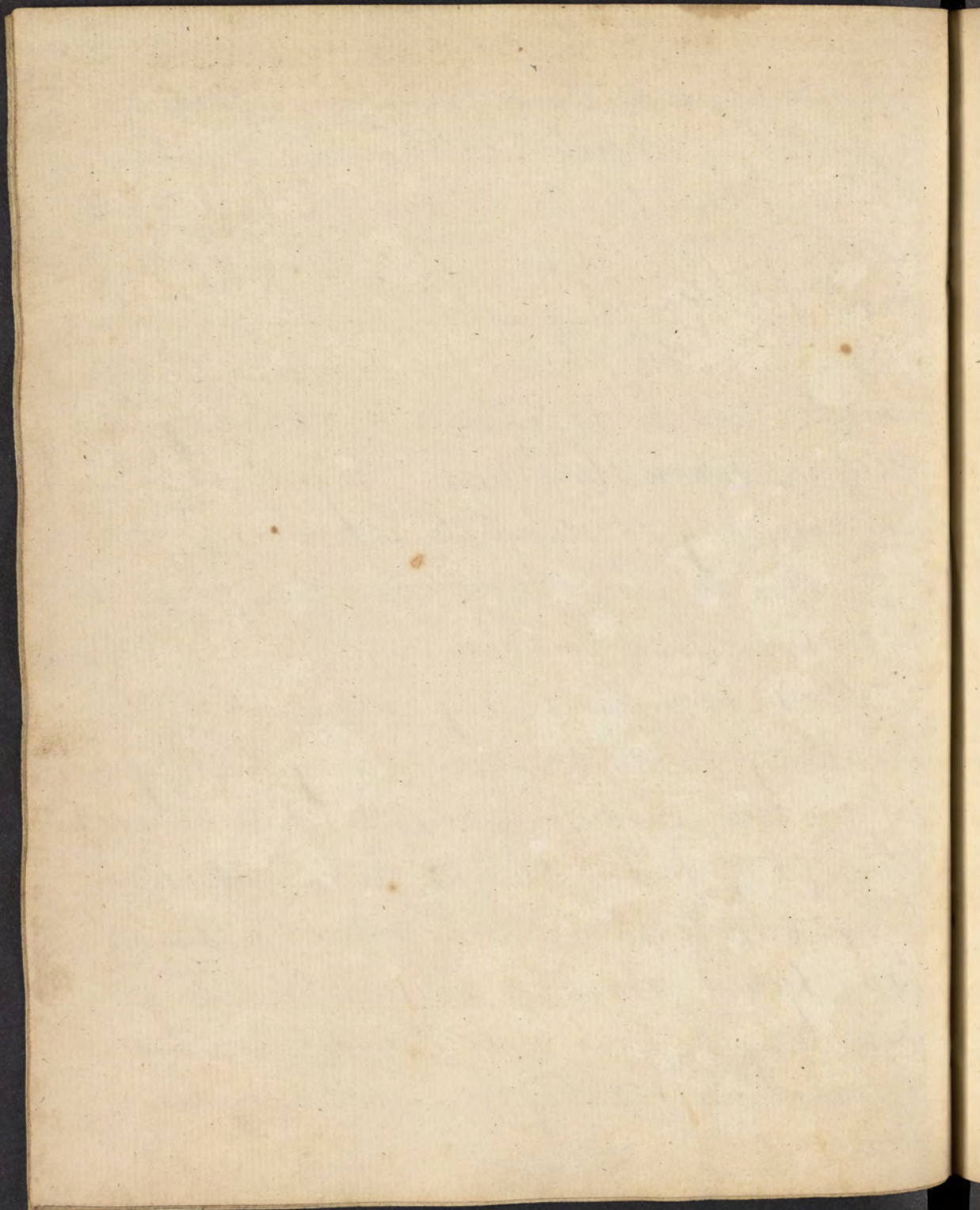
50

to be secured on the Leg by various turns of a roller — A silk handkerchief is to be passed about the Ankle over the instep and under the foot, it is to be secured by the Cross bar for the purpose of making extension. — The roller for securing the tapes should not be so tight as to cause any great pressure upon the vessels; Bags of Chaff will be necessary to fill up the interstices. —

By this means of treatment much permanent extension may be made. —

It is sometimes very inconvenient, particularly if the fracture is very high up, under these circumstances Dr P. never uses them, & in fact he thinks where extension & counterextension is to be made Desaults long splint reaching a little above the pelvis may be used with advantage —

Sometimes it happens that only one

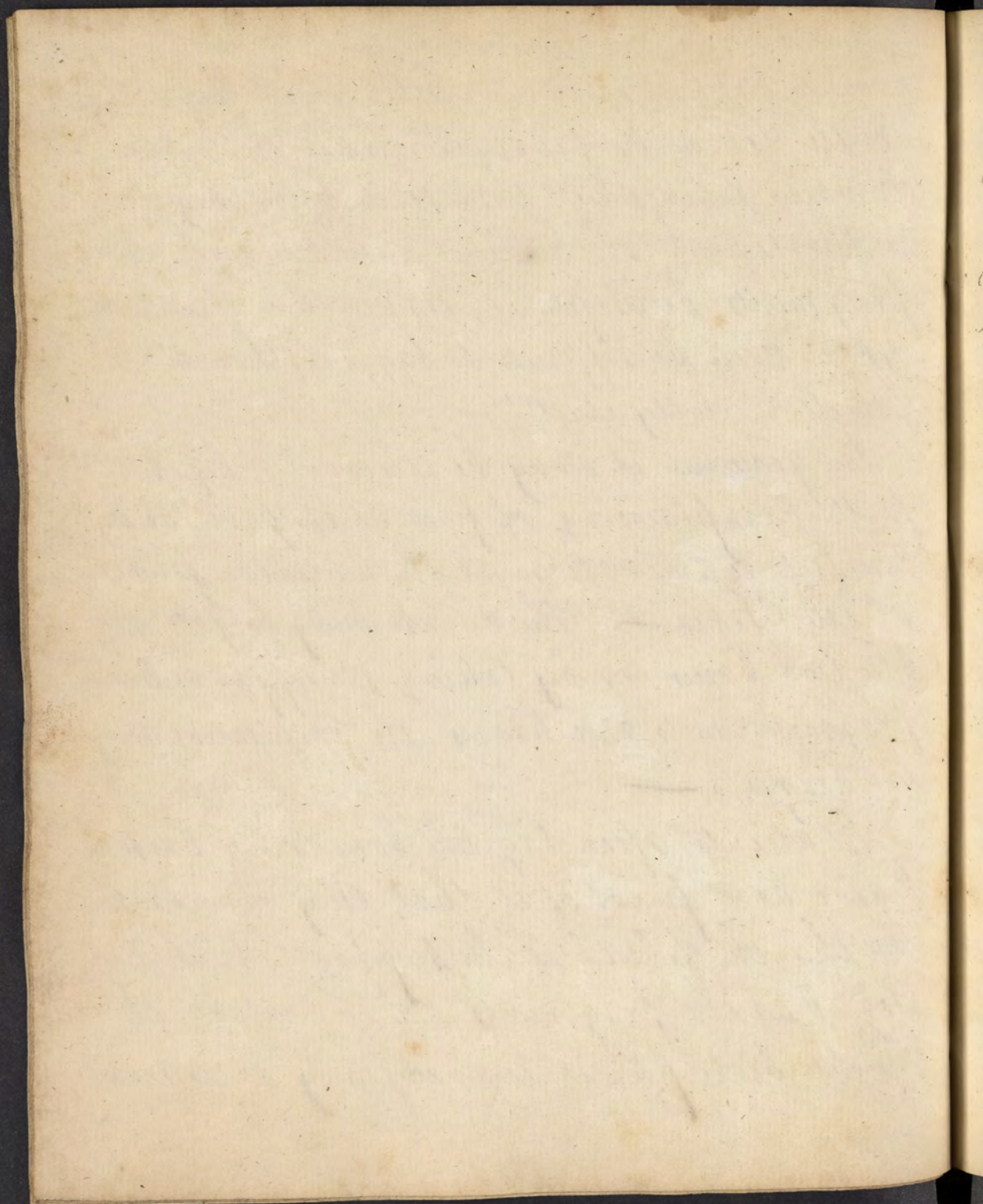


Bone is broken either the Tibia or the Fibula.

If the Tibia be fractured while the Fibula remains uninjured, there will probably be no shortening of the Limb neither will the fragments be displaced, under these circumstances it will be difficult to say whether a fracture really exist.

In general it may be discovered by the patient complaining of pain at the part, or by careful examination at the anterior part of the Tibia — The Chink may be felt at the two bones or by taking the upper or lower fragment into our hands, the Crispitation may be heard.

Patients often say the bone is not broken & give as a proof of it that they can walk. In this the Fibula is the support of the Leg & as the fragments are in contact it might be supposed unnecessary to do more



than merely keep the part at rest, But this is a mistake & should be guarded against & the whole apparatus is to be applied.

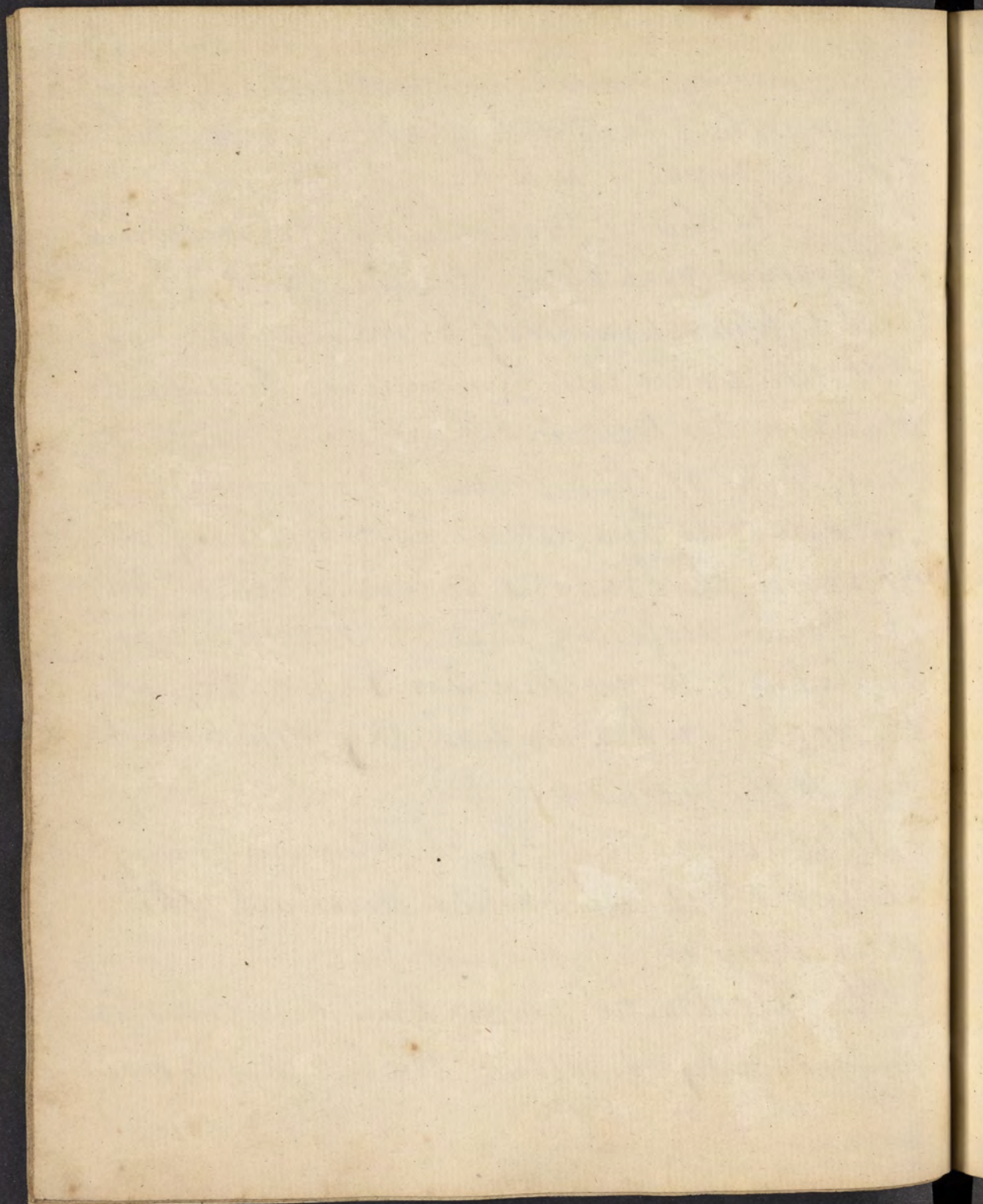
If this is neglected the fragments will rub against each other, pain inflame: and even suppuration may be the consequence.

It will under these circumstances be difficult to induce the part: to submit, unless we convince him of the existence of the fracture.

A case was here related in which the part: removed the bandages as soon as the Dr. left the house declaring that the Surgeon was mistaken; He walked 2 or 3 times around the room, when an unlucky step brought him to the ground.

It is proper to apply the bandages loosely at first, lest we should diminish the inter Osseous space.

The Treatment under these circumstances is precisely similar to that made use



of which both bones are Fractured.

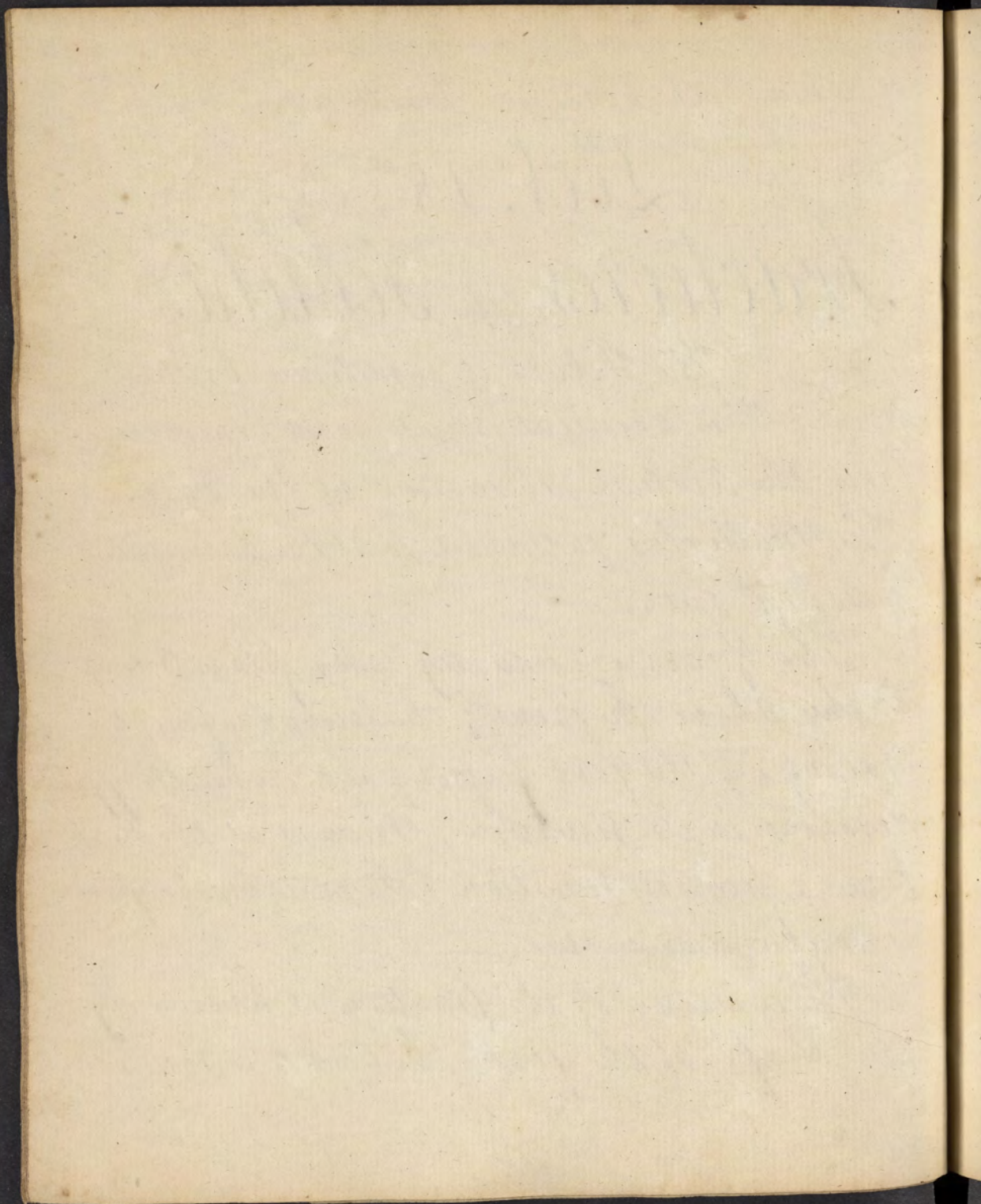
Lect. 28th Fractures of the Fibula.

The Fibula is sometimes broken alone— This accident arises most generally from the violent abduction of the Foot.

The Malleolus externus is at the same time pushed out.

The fracture usually takes place 3 or 4 inches above the joint; the lower fragment moving in, the foot passing out, while the upper remains in its situation, there is at the same time a partial luxation & the interosious space is much diminished.

The existence of the fracture is known by the shape of the foot, the ankle is rounded



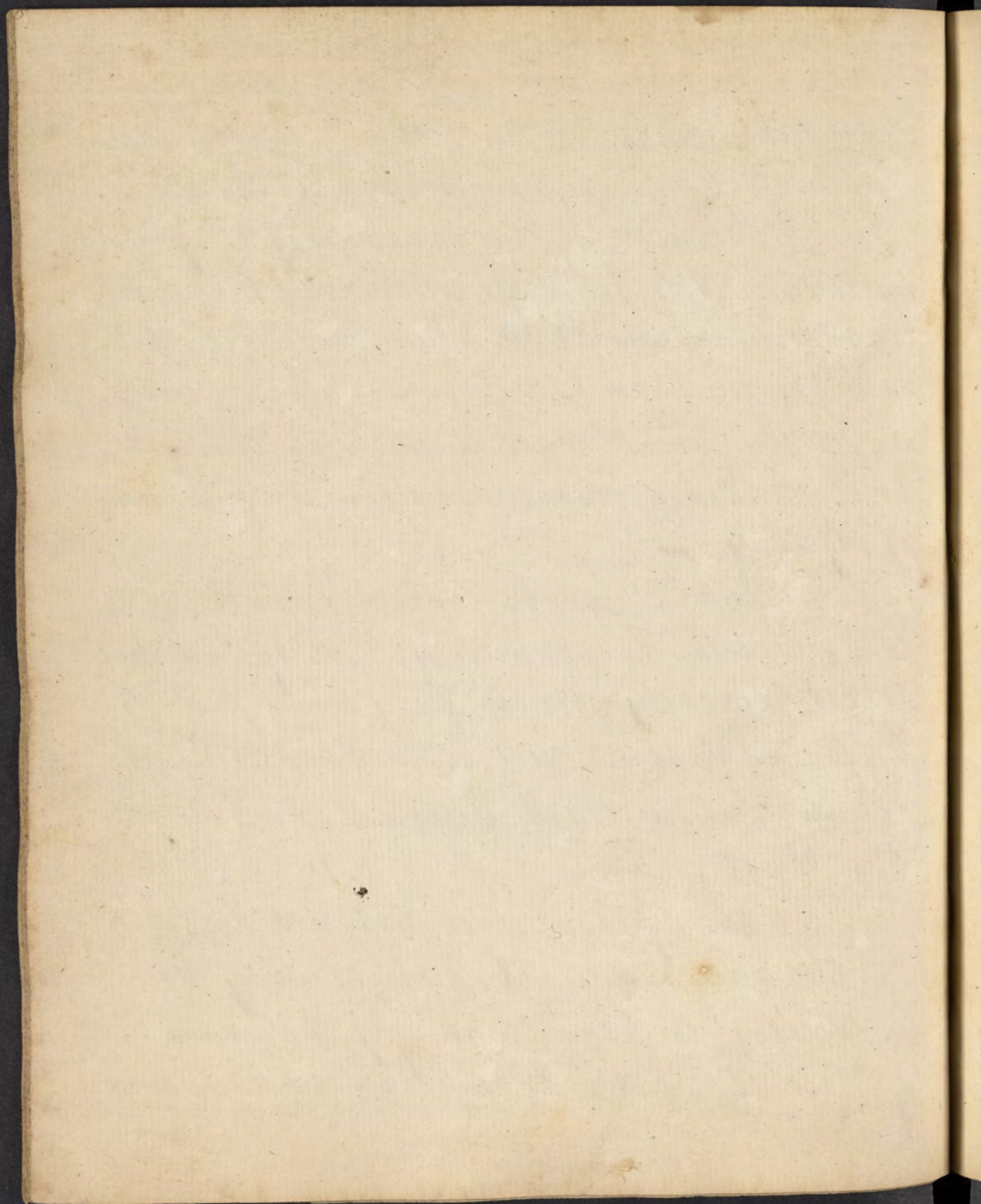
on the inside while there is a corresponding depression on the outside; - The Patient is also unable to perform any motion at the Joint.

The Treatment in this case is very simple, extension is to be made at the foot & heel, and counterextension at the knee, by this method, both the luxation & the fracture are reduced; as in the former case it might be thought that the tibia would answer the purpose of Splints. —

But as in the former case this opinion would be erroneous, the Splints not to act directly on the fragments but to keep the foot at rest. — The splint of course should reach beyond the sole of the foot. —

As the splint does not act directly on the fragments, the patient may be unwilling to have them applied. —

Now if we are to explain our reasons



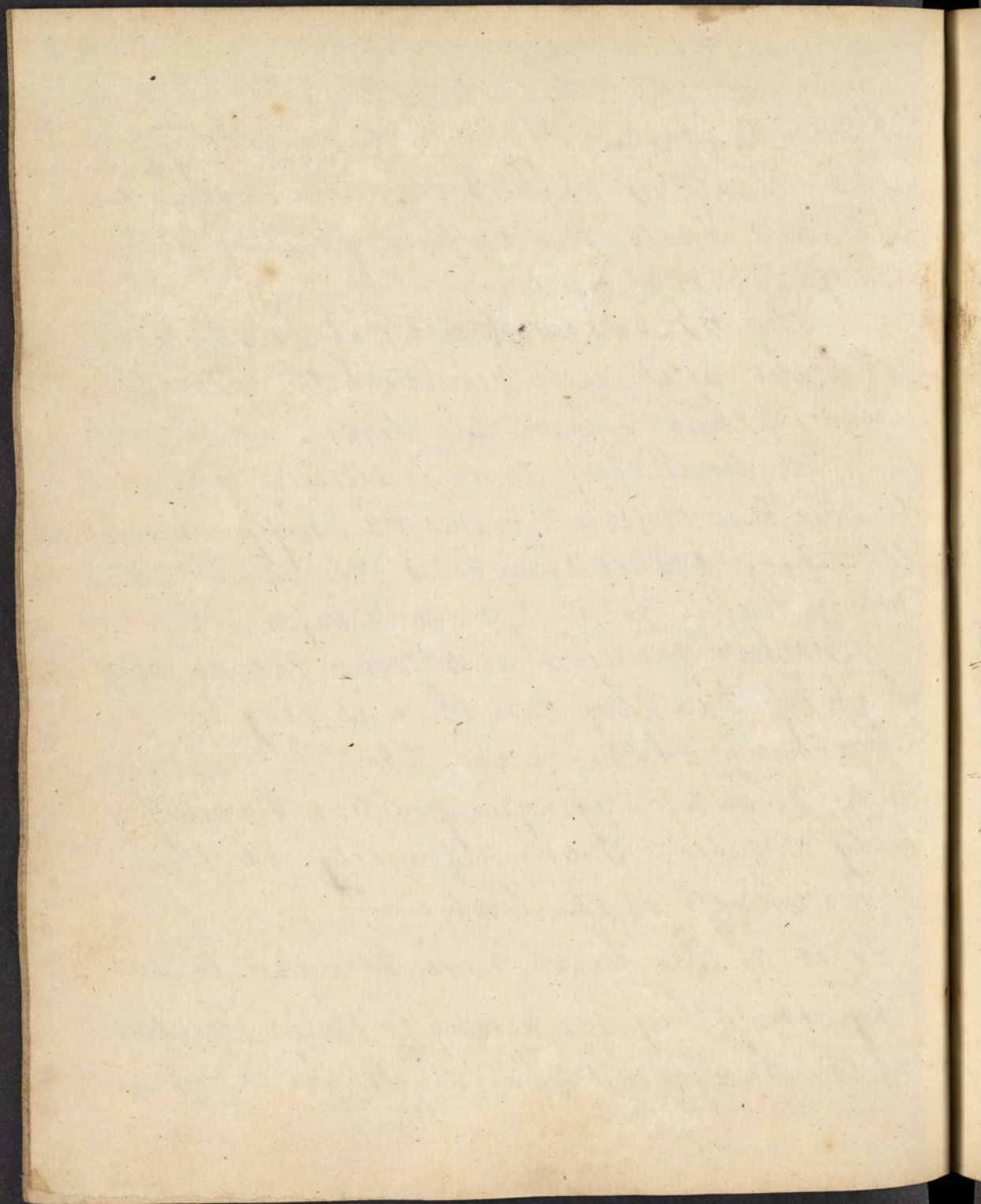
to him, his unwillingness will cease & he will at once submit. Splints &c are to be applied as in fractures of the Tibia. The limb is to be extended & retained in that position until the fragments unite. —

The Bandages must not be applied too tight as it will diminish the extensory space & thus deform the Limb. —

Sometimes the patient is allowed to walk in this case inflamⁿ comes on & Suppuration ensues. In all these cases we should attend to the Ankle joint & prevent inflamⁿ. —

Another fracture sometimes occurs very high up & in this case there is very little shortning of the Limb, But the fragments may be in an improper position & will possibly occasion much deformity as well as weakness of the Limb. —

Cases of this kind have occurred to Dr. Physick, they are owing to the inattention of the Surgeon who forgets the Knees are



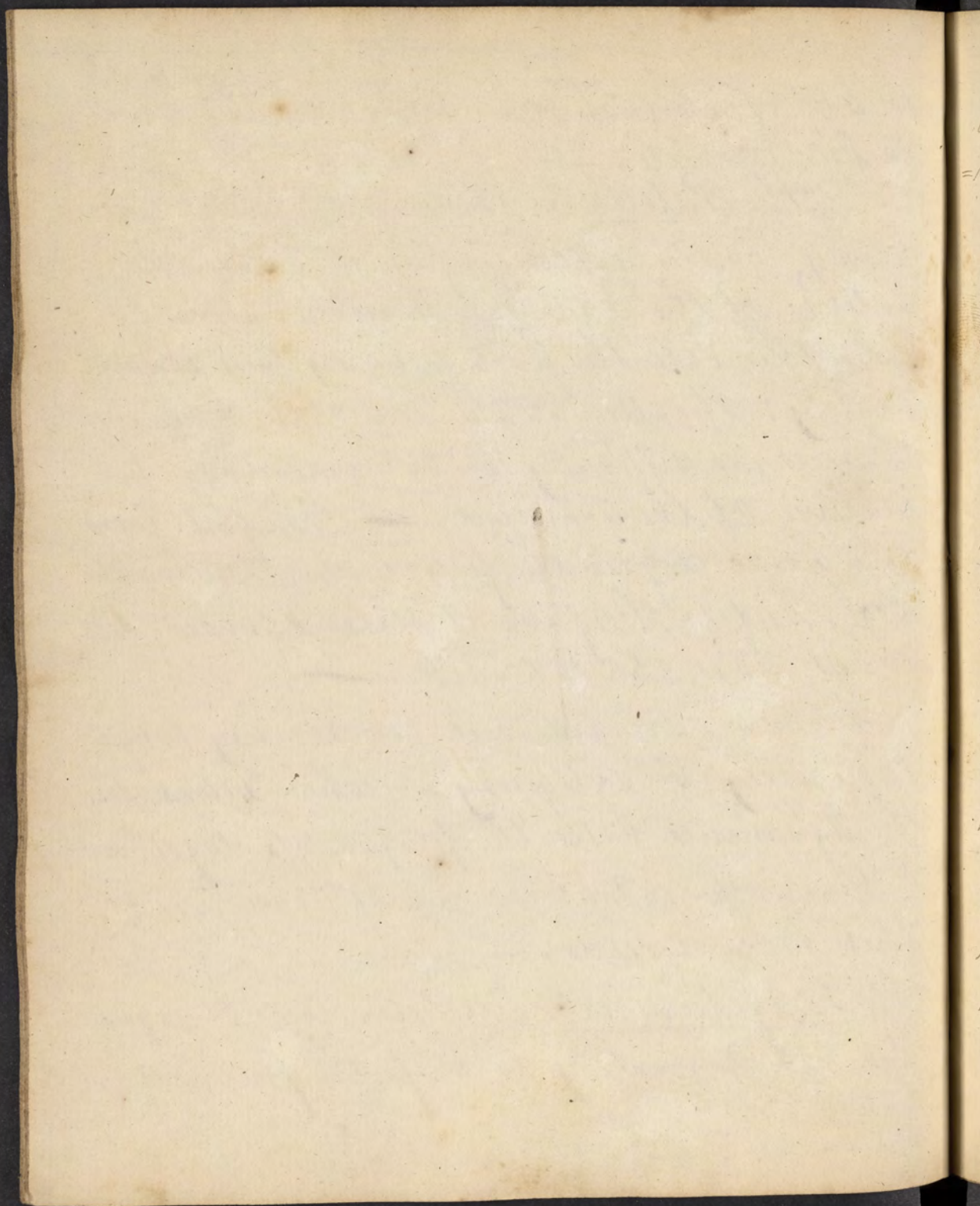
to approach each other & that the Legs are to be parallel. —

The Patilla is sometimes broken by heavy bodies falling upon it or by the action of the extension Muscles. —

In this case the patilla usually falls immediately; If called at the time of the accident there is no difficulty in determining the nature of the accident. — The patilla loses in a great degree the power of extending the Leg, but in keeping it straight & moving sideways he is able to walk. —

It may be fractured transversely longitudinally or obliquely — When Transverse the ligaments hold the fragments together & thus some extension can be made, but this soon yields. —

If Longitudinal little else will be requisite than merely to keep the patient



57

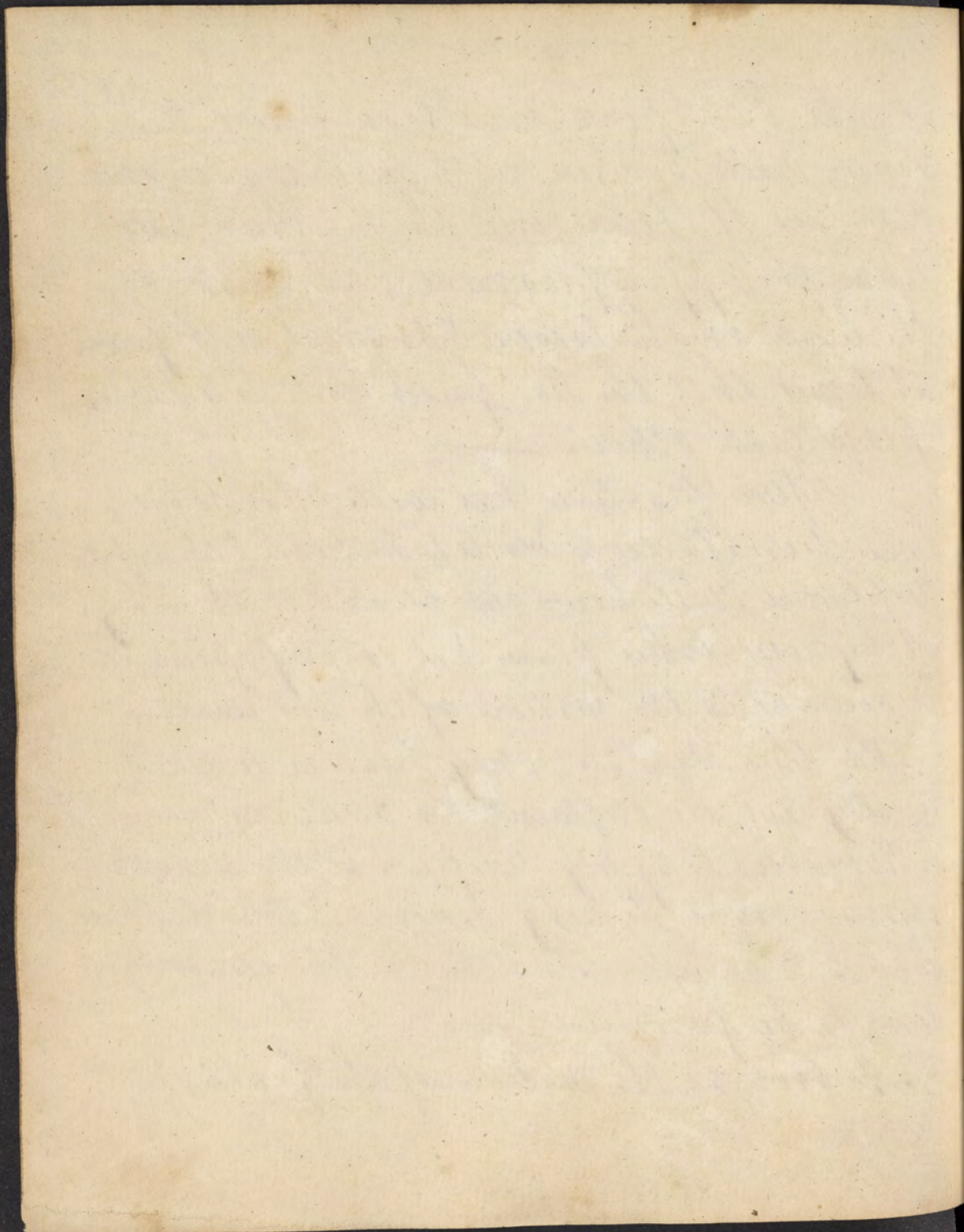
at rest & the parts will soon unite, discutients, will be used with advantage in this case. — If Transverse the extension acts upon the upper fragment & the weight of the limb on the lower & so great is the power at times that the two pieces will be 6 Inches from each other. —

After fracture has existed for some time tumefaction will take place & the vessels ruptured will pour out blood — in this way Aechymosis takes place & it is impossible to decide as to the nature of the accident —

In this case our only plan is to wait quietly until inflamⁿ: &c subsides. —

Were we to apply pressure at the time, the effects might be very serious — the Leg however is to be extended & the Antiphlogistic system to be pursued. —

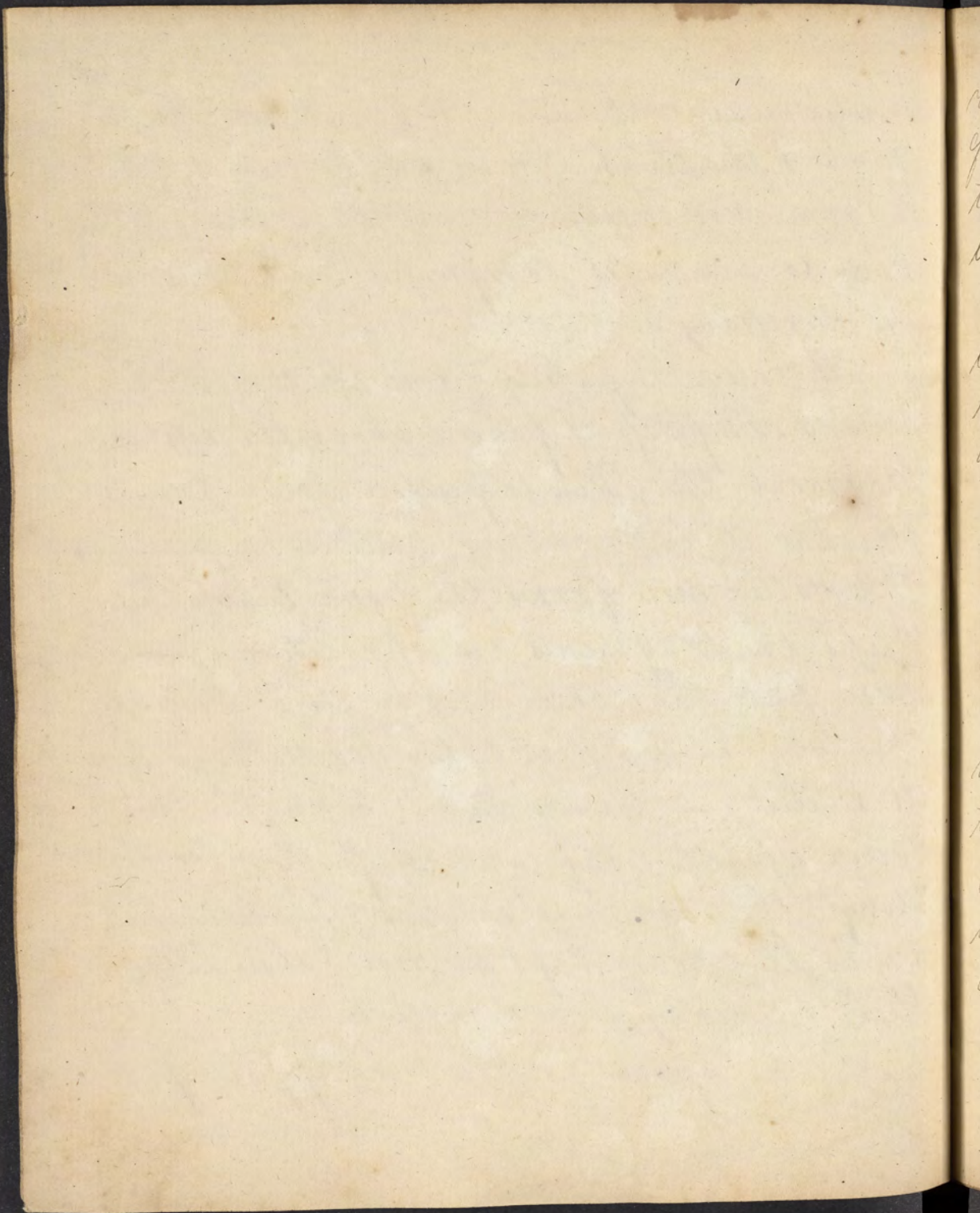
As soon as the nature of the fracture



is determined, the Leg is to be extended on the thigh & the thigh flexed on the pelvis, the Surgeon now easily reduces the fracture, to keep them so bandiages Compresses and Splints are necessary.

A Roller is passed from the foot to the knee a compress is placed above the upper fragment the skin is pulled down so as to prevent it intervening between the fragments the roller now forms the figure 8 and thus keeps the fragments in apposition. — then pass the roller one or twice around the wrinkled skin of the Patella to prevent its swelling — We are now to continue the roller up to the hip and the patient will ask "Why?" the answer is evident, The muscles are in this way kept at rest & thus loose their tendency to contraction —

A long Splint is now to be applied poste-



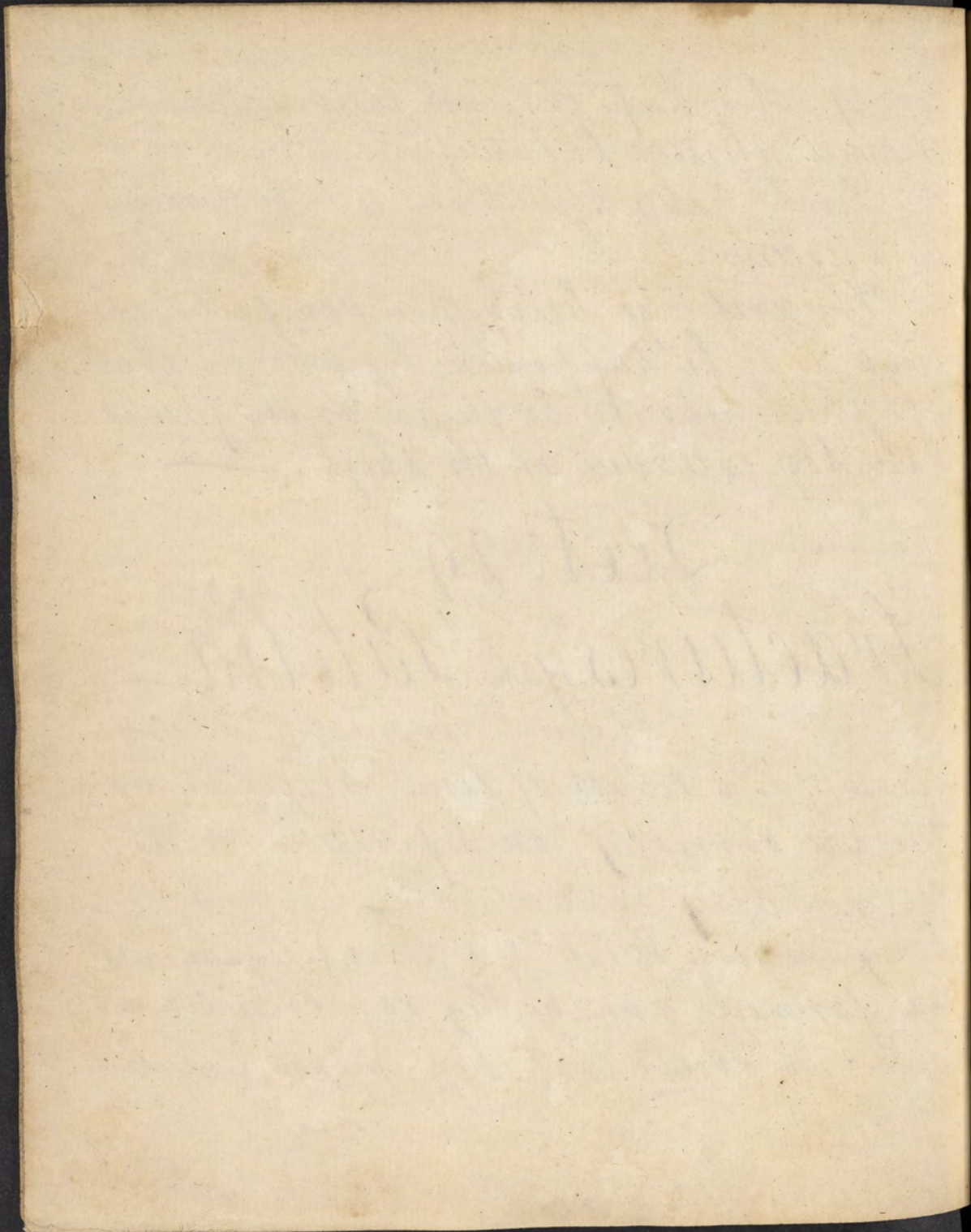
riorly, this keeps the limb extended, Soft
plannel should be interposed between it &
the Limb & this Splint see is to be retained
by a roller.

The dressings being now completed, the
limb is to be supported by pillows that
the thigh should be flexed on the pelvis
& the Leg extended on the thigh.

Lect: 29th

Fractures of the Patella

If this accident be not disco-
vered for a length of time, or if it be not
treated correctly, the separation will
remain very considerable. Tho' no
bony union exist yet strong ligaments
are formed and the Leg can be extended
But in order that these should act to



Advantage some management is necessary
 of the part after the subsidence of inflamⁿ,
 find it very inconvenient to move the Leg he
 comes satisfied with the recumbent posture
 and loses all desire of moving, he attributes
 his inability to move about to debility and
 weakness of the part. —

Now the management above alluded
 to is to induce the part, to make an exer-
 tion to move the limb — We must assure
 him that the muscles have lost the power
 only thro' the inactivity to which they
 have been subject & that they will regain
 their power by a little practice —

Dr. P. here related a case of a Lady
 whose Patella had been fractured; after
 all inflamⁿ had subsided & union appa-
 rently taken place, it was found that
 she had lost the use of her Limb —
 Under these Circumstances she applied

The treatment consists in extending the leg -
applying a roller from ankle to the groin -
~~then applying~~ after bringing down the displace-
ment - compresses are to be applied above &
below. The limb is then extended on Dancy's
Splint. which consists of a thin board, long
enough to extend half way up the thigh & down
the leg. This and one foot & an half broad -
The thin board is attached to a thick piece of
same length & about 4 inches in breadth - and is
covered on the other surface with leather -
The splint thus constructed is split into pieces of 2
inches broad so that it may be applied round the
limb - On the firm middle piece are attached 2
loops for bandages to pass through.

The splint is applied on the under part of the leg
The bandages then applied above & below the knee
& finally over the whole of it.

to Mr Hunter who after considering the case, advised the patient to sit every day on a table near to the wall & in this situation endeavour to touch the wall with her toe. — At first the motion was imperceptible soon however the motion became evident, & eventually she recovered the entire use of her Leg. — This is the only mode of treatment ever found to succeed, It will be found that the muscles soon accommodate themselves to their diminished length. —

It is a doubtful point whether long Union ever takes place in transverse fractures of the patella, if it were not for the want of bony union a stiff joint would eventually be the consequence of dislocations. —

Dislocations

When the articulating

friction at the joint is greatly impeded if not entirely lost. There is pain, alteration in the shape of the part if there be ~~not~~ much flesh over the part.

+ The principal difficulty arises in ordinary cases from the ~~con~~involuntary motions of the voluntary muscles. ^{and the obstacle of the surface of bone.} in older cases. - The difficulty arises also from new adhesions forming - from the cavity filling up and from the contraction of the capsular ligaments around the neck of the bone.

Emetics in nausea does, The tobacco injection
The injection of the fumes - The tobacco pills, antispasmodic,
opium. fatigue. All these may be tried
when vs ad delq is contraindicated. The idea of
bleeding ad delq - originated with Doctor A. Morison

Surface of a bone escapes from its natural situation, it is said to be luxated or dislocated. & the motion is entirely lost.†

If called at the time of the accident the reduction is easily accomplished, But if much time has elapsed our difficulties increase.† The capsular ligament seldom affords any obstacle to the reduction, but sometimes this occurs. —

To produce relaxation in the Muscular System, various remedies may be employed. U. S. Ad deliquium Animi, low diet, purging† de great force is sometimes used on those occasions when much injury done — This is rendered unnecessary by the free use of the Linct. —

By this means the whole Muscular system is completely reduced. —

If however the prejudices of the part, forbid this we must have recourse to

An important direction as I shall give you is
that you make the extension on the dislocated bone
and counterextension on the bone from which
the bone is ^{by} connected.

Never let the patient know that you are going
to attempt the reduction, if you can help it.
You thereby take the muscles as a whole on surprise
and before they can act, the bone is replaced.

63

other measures - intoxication will produce the effect, of relaxing the Muscles with continual attempts. —

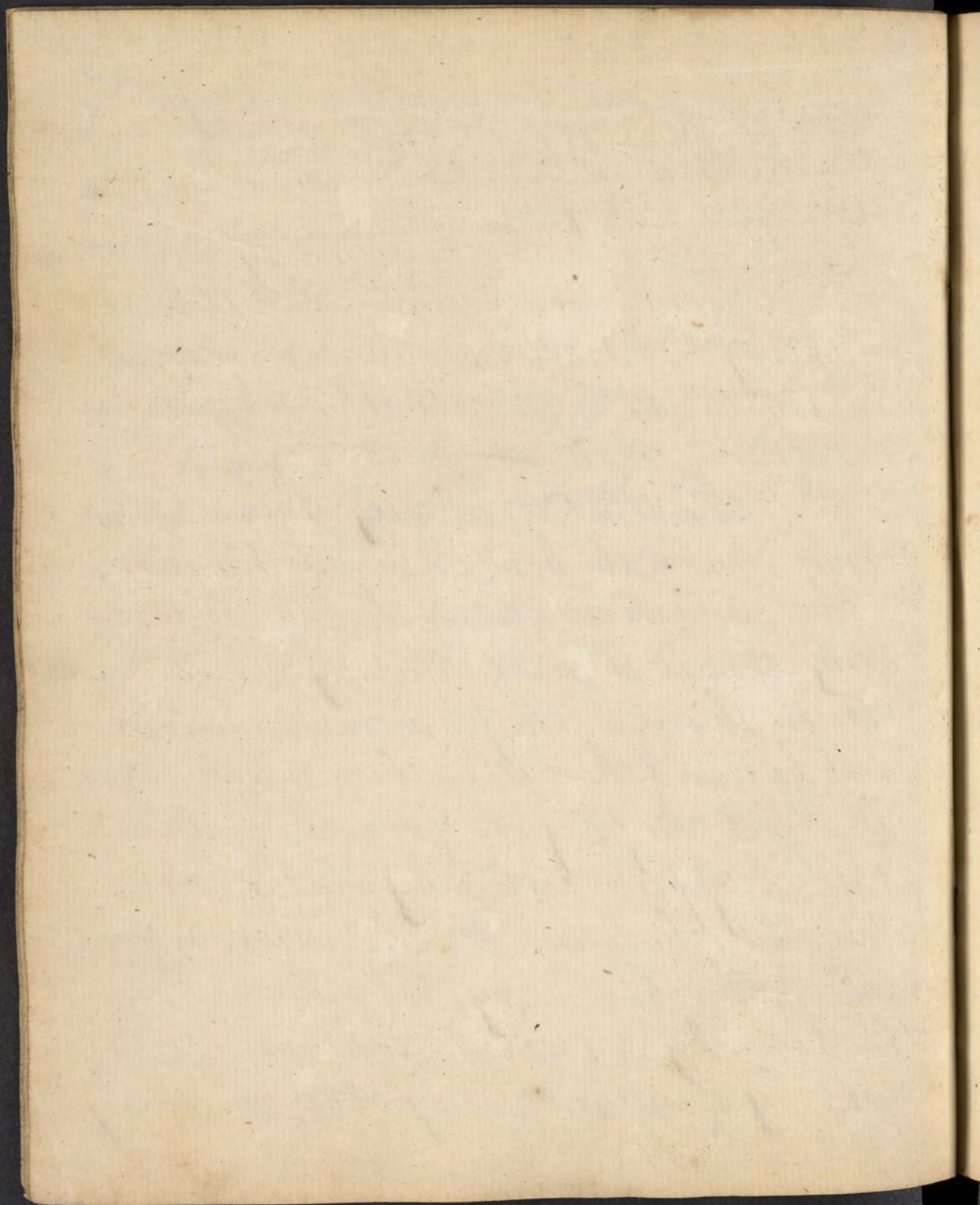
In recent cases the difficulty arises from Muscular contraction, which is involuntary, But after continuing for some time say Weeks or Months, this Muscular contraction ceases. —

By this time we usually find adhesions formed round the bone in its new situation.

These adhesions retain the bone so completely that it is with difficulty removed.

Before this can take place these adhesions must be torn & the rust in them is audible,

To effect this purpose force is requisite & this is applied either by Pullis or Assistants the latter Dr. P. prefers, as you can in this case vary the direction of the force by a word, whereas if it is done by pullis or any other machinery



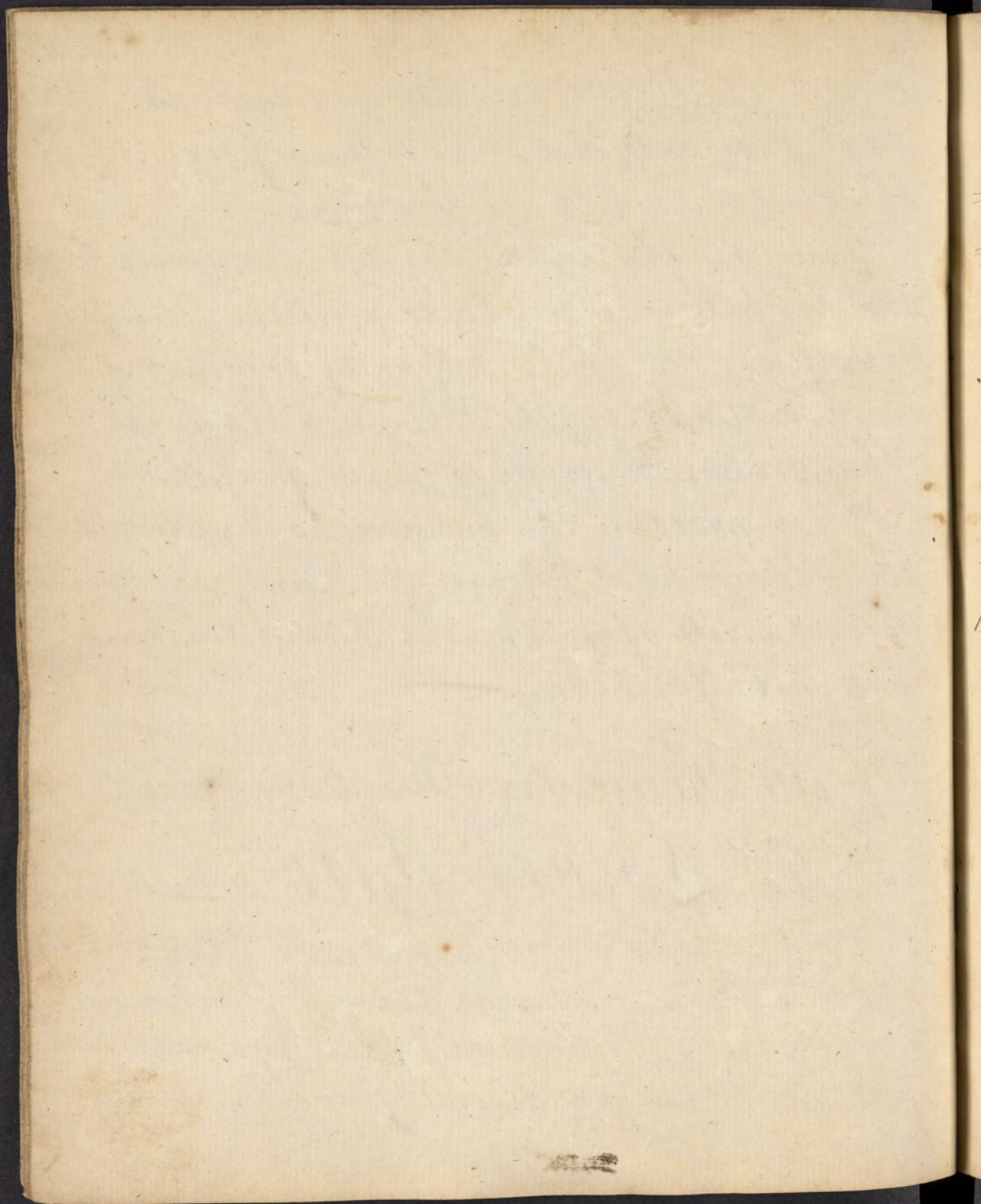
64
it will be liable to this inconvenience, that
as it can only act from a fixed point, so
it can act only in one direction. —

Sometimes the luxation is never reduced &
tho' the patient is unable to move the limb for
some time, yet the limb finally becomes capab-
le of motion, by the formation of a joint
This motion however is never perfect. —

If for instance the humerus is luxated at
the Elbow & not reduced, the new joint for-
m'd admits of motion backward & outward,
but not forward. —

Of the Particular Luxations & first Of the Lower Jaw. —

In dislocations of this place,
the direction is always forward, the condyles
are situated at the root of the zygomatic
process & both are usually luxated, but



sometimes only one.

65

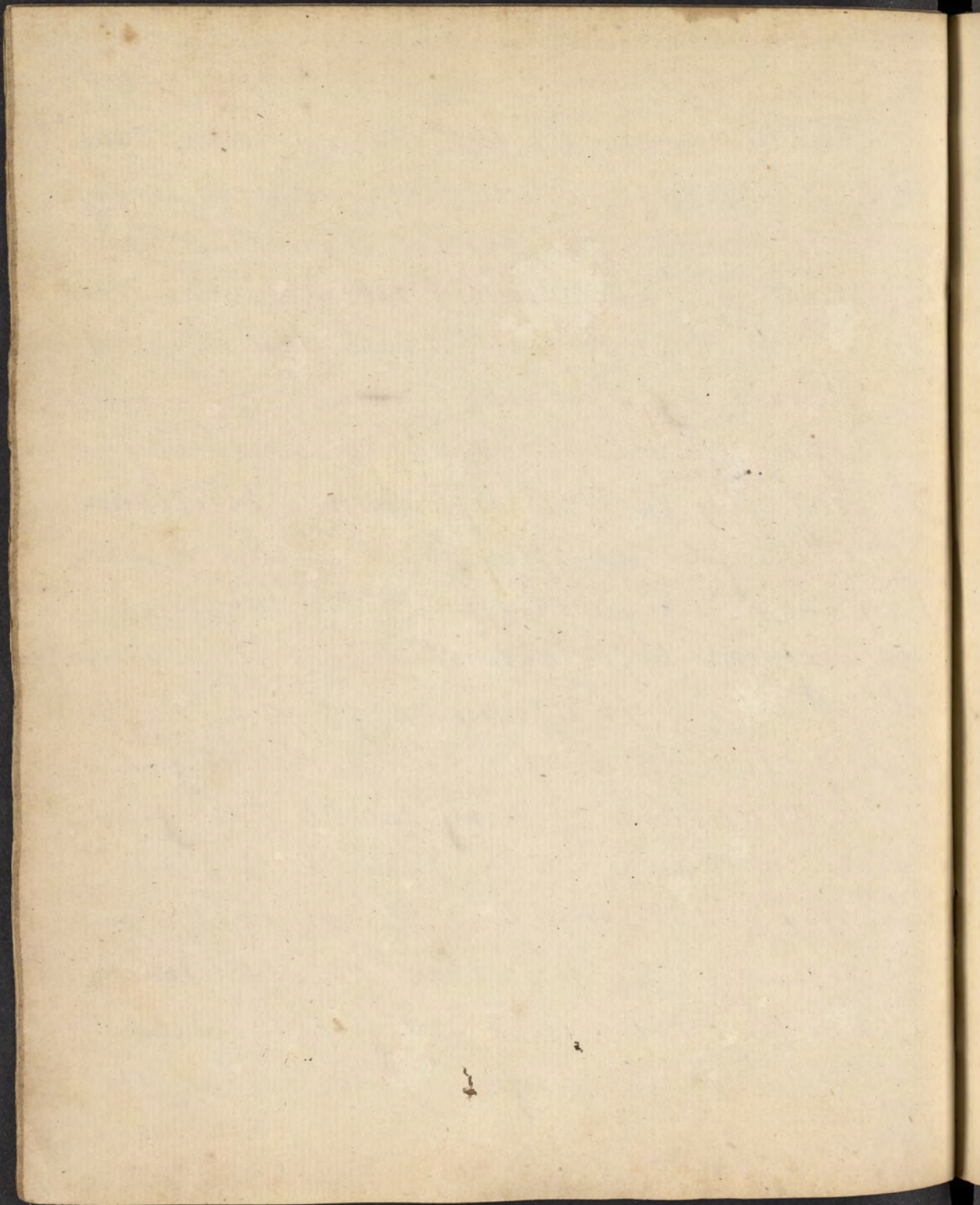
This accident usually occurs from yawning, the mouth is extended and it is impossible to close it, the patient cannot speak or swallow, & the Saliva flows from his mouth.

Dr. P. was called to a case (which was produced by Colding). —

Besides the symptoms above enumerated, he could, by ^{careful} depression behind the ear

Attempts are often made in these luxations, (by those who are ignorant of the subject) to accomplish their reduction by a blow under the chin, but this serves only to increase pain & will never succeed, unless accidentally. —

The reduction is very simple & easy. — place the thumbs on the Molar teeth & the fingers under the chin, the thumbs are to be defended with leather or folded linen, while the Molar teeth are pressed down the chin is raised up, by this means use



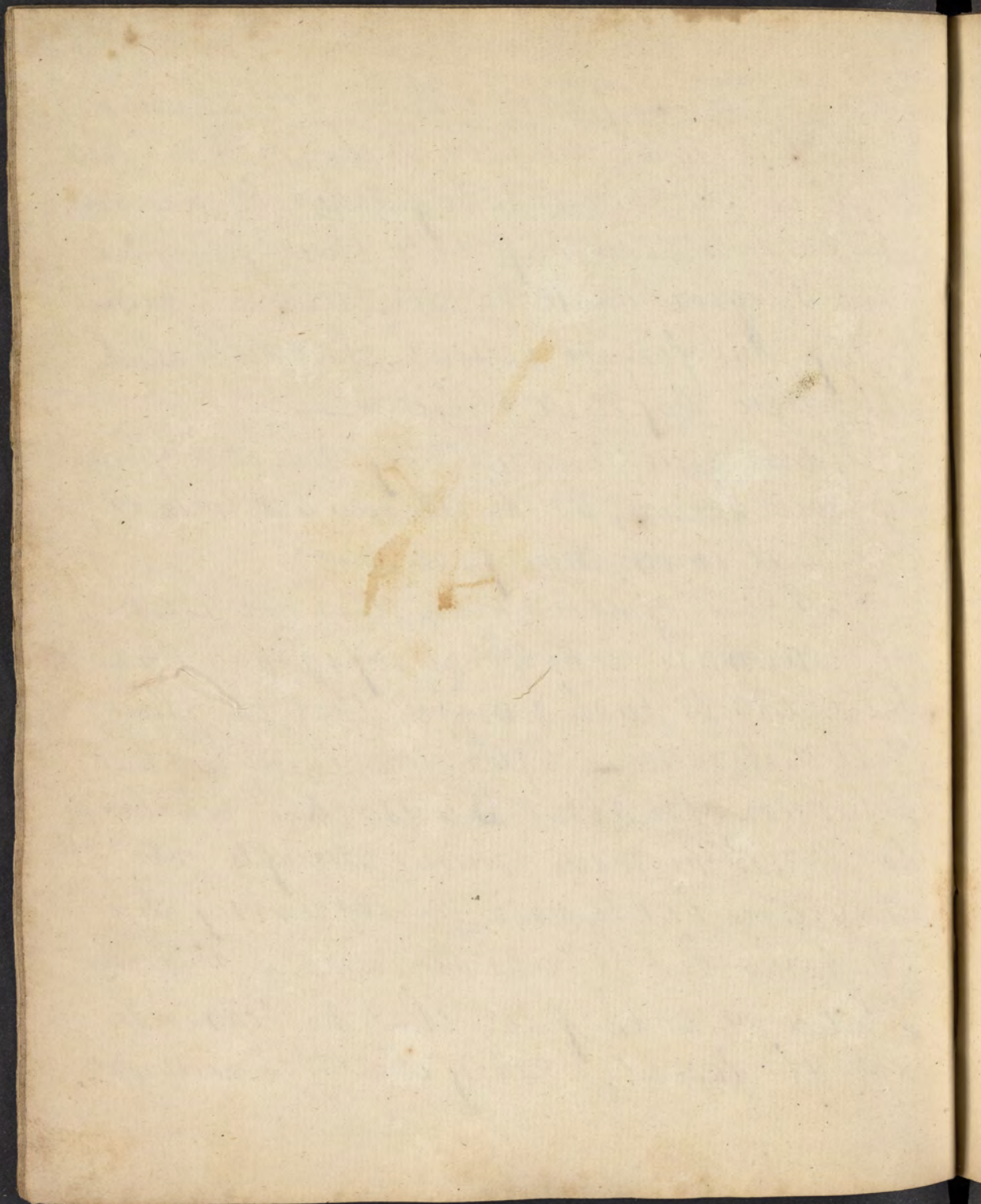
66

the base of the jaw as a lever & the thumbs
as the fulcrum— as soon as the larynx begin
to move the Chin is to be pushed backwards,
the larynx soon slip into their place—

The Surgeon must be careful at this moment
to slip his fingers between the teeth & cheeks,
otherwise they will be bitten.—

If not called immediately much difficul-
ty will occur, as the muscles act so as to
retain it in its new place.—

A case of this kind was here related
of a woman who for Dropsy had been
salivated to such a degree that the jaw
was dislocated— After remaining in this
situation for about 3 weeks she was brought
to Dr. P. he made various attempts at
reduction but in vain— Dr. Dorsey did
the same but it was all in vain so debi-
litated was the pat^t. that he feared to
use the lancet & carry it as far as might



67

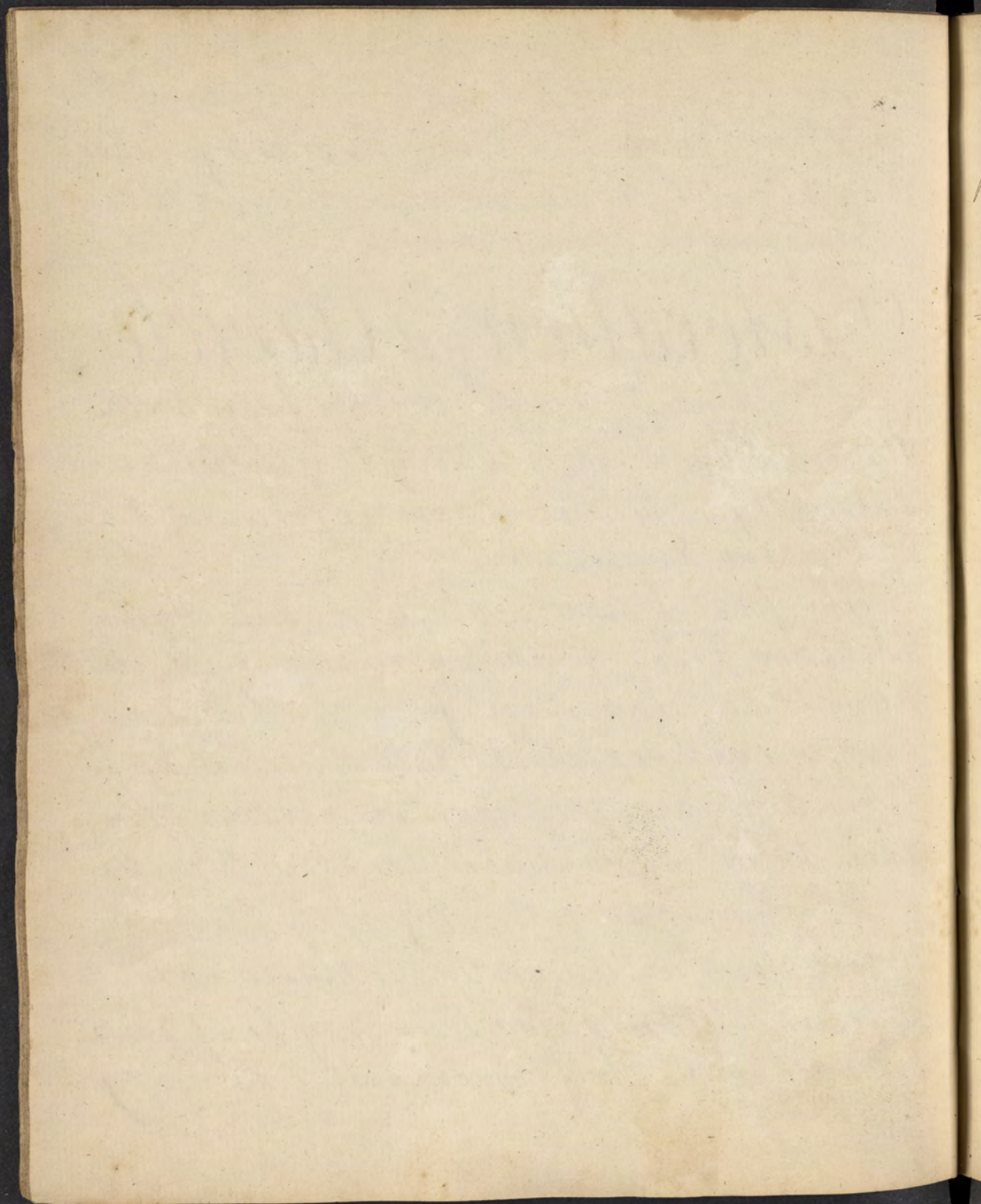
to me any, the proposed intoxication,
the Lady succeed, no sooner was this produced
than she with the utmost ease reduced the
dislocation. —

Dislocation of the Clavicle

Rarely occur, it takes place at the
sternal & humeral extremity — At the sternal
extremity, the dislocation is forwards &
backwards & upwards. —

The first is most usual, it is caused by the
shoulder being pushed forwards with vio-
lence. — In reducing it push the shoulder
backwards & outwards, & then retained by the
same dressings as if fracture had taken place,
these should be continued for about 8 weeks.

The humeral extremity of the clavicle
is not so often dislocated as the sternal
extremity, this dislocation may be upwards
& downwards, the former most commonly



caused by falling on the shoulder & is easily
 felt by examining at the shoulder where
 the integuments are very thin.

To reduce the luxation push the arm direct
 ly upwards — The dressings are the same as in
 case of fracture.

Much attention is necessary to keep the
 dressings exact, we should examine twice in the
 day; The difficulty arises from the weight
 of the arm having a tendency to displace
 the parts. — Even after all our attention, we
 sometimes fail in producing the effect we
 have in view. The apparatus is to be
 applied 3 or 4 months.

Lect: 30th

Dislocation of the Os Humeri
 dislocations of this place
 occur oftener than those at any other

The dislocation forward is of two kinds.

- 1 above the coronoid process -
- 2 below that process.

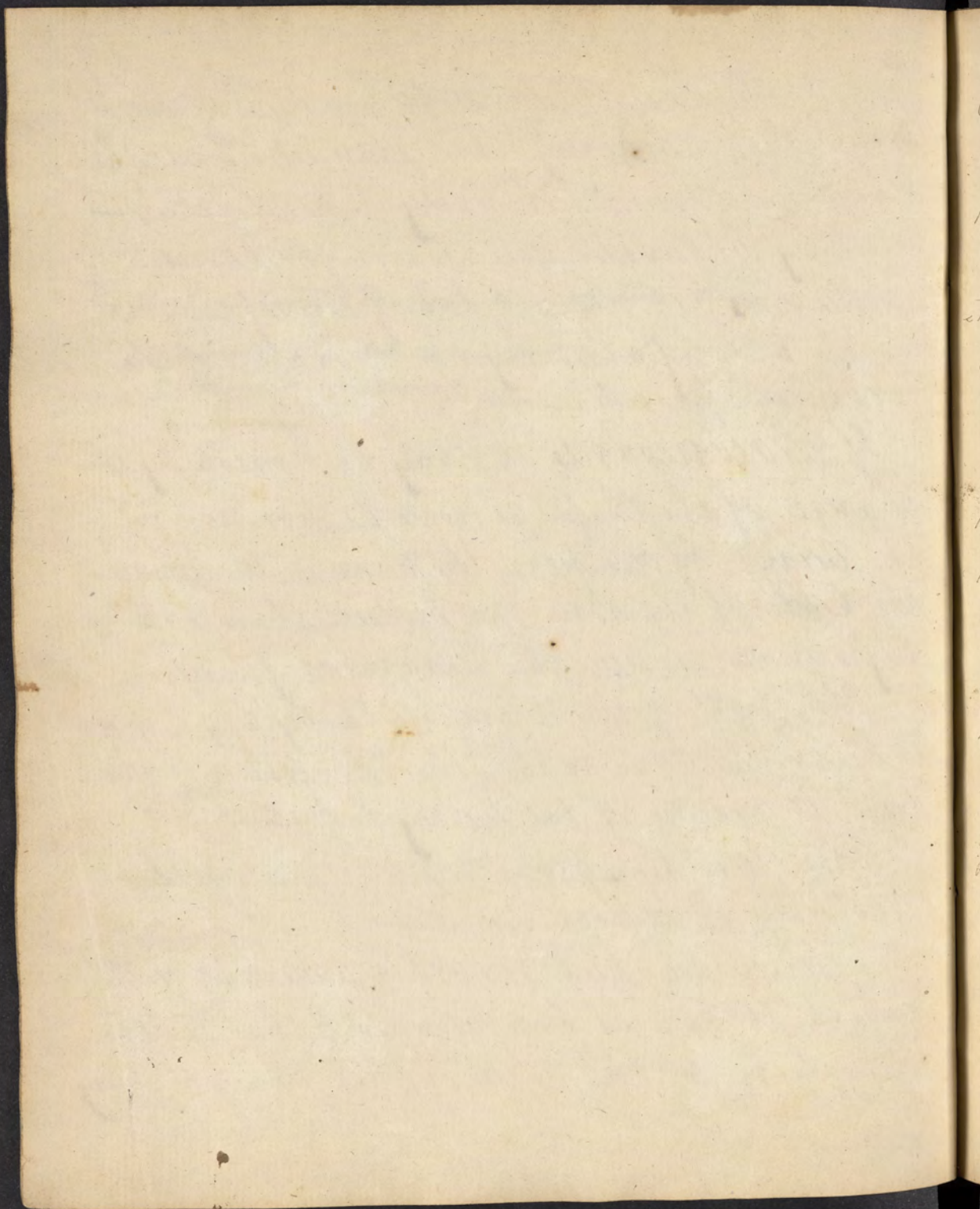
place of the body, in fact it has been asserted upon good authority that they exceed all the other luxations of the body taken together. It may be luxated downwards forwards & backwards, it cannot take place upwards unless accompanied by the fracture of the Acromion process.

If Downwards it may be known by the change of the shape as well as position of the Arm, If we place the hand in the Axilla the head of the bone can be felt, there is a depression under the Acromion process.

The patient finds it impossible by any exertion to bring the Arm to the side & the power of motion is nearly if not totally lost.

By these symptoms the existence of the accident is discovered.

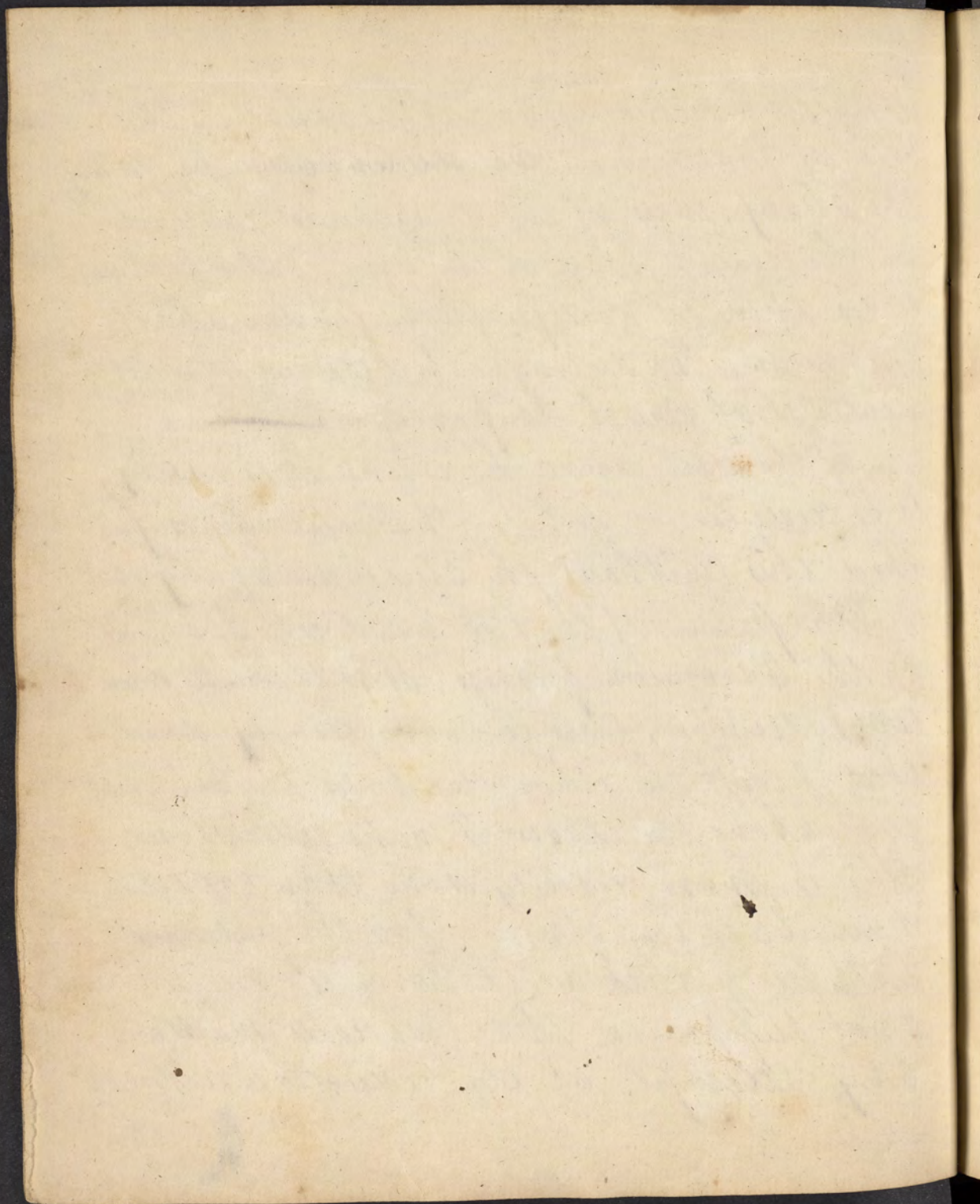
There are but one other accident with which it can be confounded & that is, the fracture of the neck of this bone, it may



be distinguished by observing, that in the case of fracture, ~~we distinguish~~ by feeling the sharp ends of the fragments instead of the round head of the bone, & also in fractures there is no depression under the acromion. To distinguish between these accidents is of much importance. —

If the dislocation be recent it is easily to be reduced — Dr. P. has often accomplished this without the assistance of any one

The palm of the left hand is to be placed on the acromion process, so as to make counter extension, ~~this is more readily done~~ that I with the other we hold the os humeri just above the elbow & make extension, this is more readily done than could have been imagined, for the patients thinking that great force is requisite & not supposing that we will make any attempt at the reduction without



71

assistants makes no resistance & "the
Muscles are taken as it were by surprise"
It so happens however that the Surgeon is
seldom called until many efforts have
been made to reduce it by those that
happen to be near. —

The general cause of failure in these
Cases is, that the assistants usually make
Counterextension by clapping the patient
around the body, in this case little force
is applied to the luxated joint, it is in
fact all lost; force so applied might be
so great as to tear off the Scapula and
Clavicle together with the arm without
accomplishing the reduction of the bone.

It appears therefore a most important
direction, that the Counterextending force
should be applied at the Acromion process.

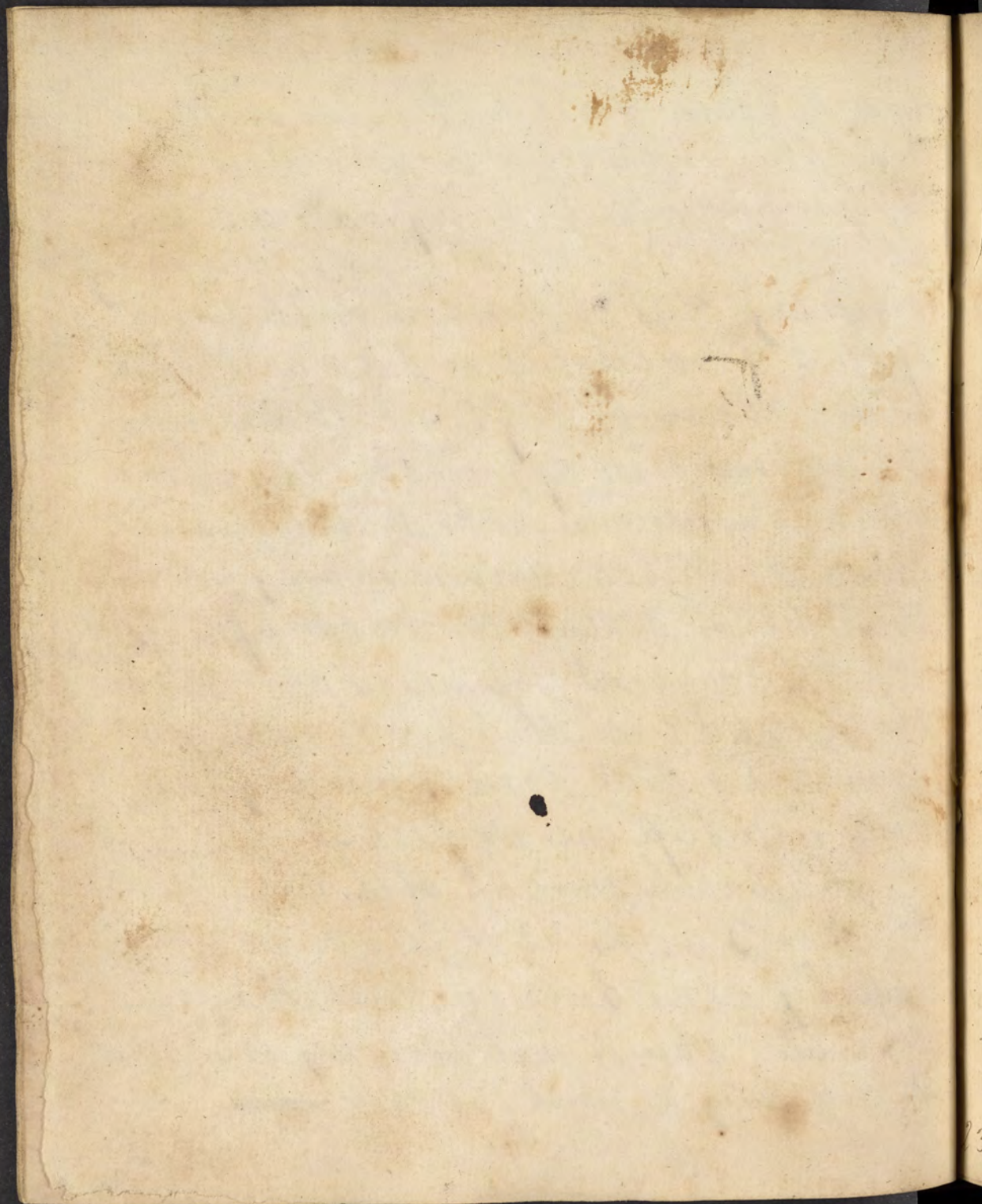
If we make use of assistants the num-
bers for extension & Counterextension —

should move the forearm back ward & forward on the
elbow side

must be equal, for if we have two on the one side & four on the other the force of the two supernumeraries will be expended uselessly, of one or four assistants is all that is usually necessary, flex the forearm on the arm & pass a handkerchief or band around the arm, observing to place buckskin under it previous to its application, this is to be given to assistants who make extension others make counterextension by placing their hands against the axonian process.

The Surgeon^t now places one hand on the Axilla & with the other holds the patient's arm to his side most commonly the bone will slip into its place.

After the existence of the accident for 2 or 3 weeks it is laid down as a rule by some Surgeons that it is irreparable, this is not strictly true, But the suppuration is much increased.

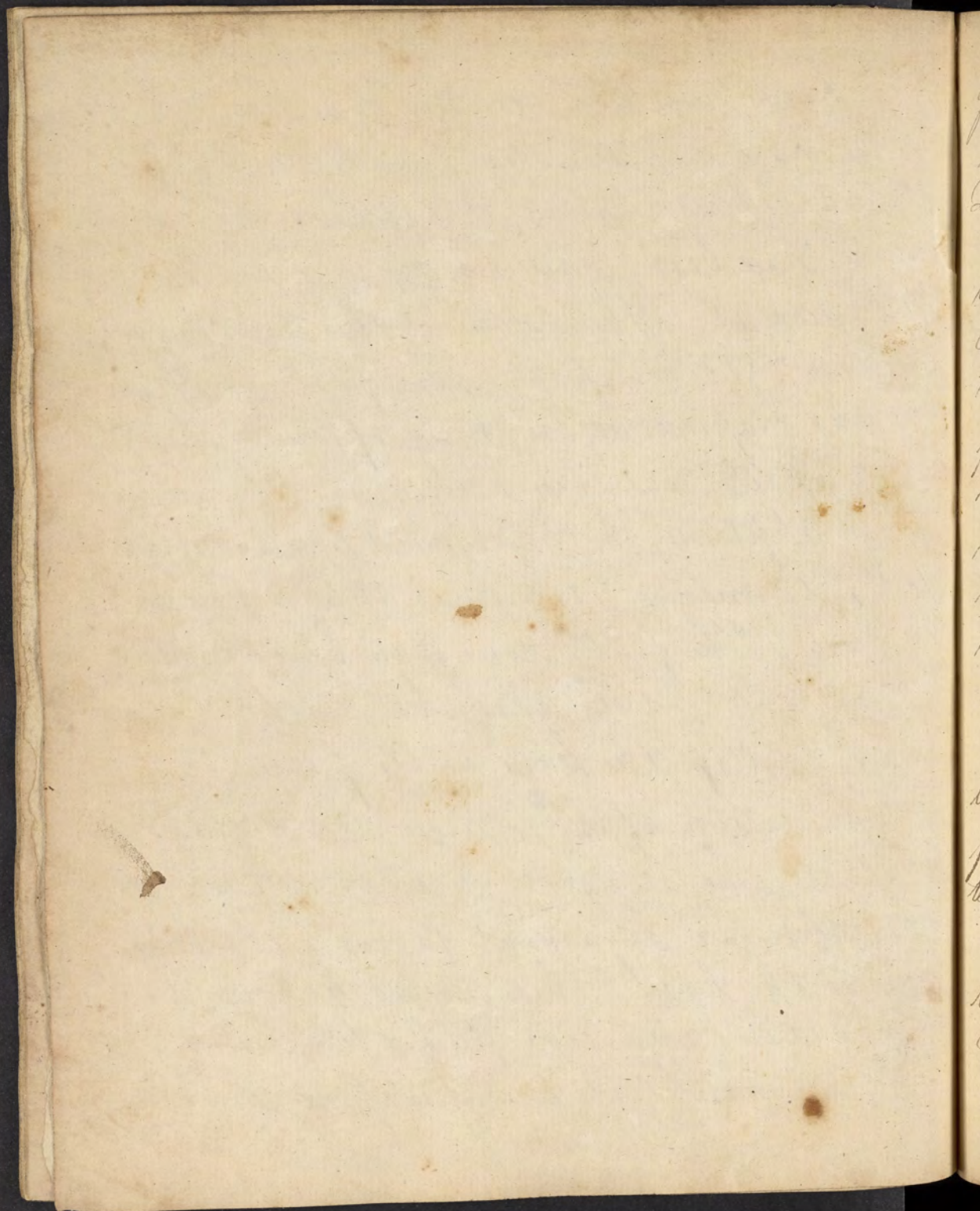


A case was here related of a man whose
 Arm had been luxated for some time previous
 to Dr. P. seeing him, at different times great
 force had been made use of in endeavouring
 to reduce it. There was at this time much
 inflamⁿ. & excoriation taken place — Two
 weeks elapsed before the symptoms subsided,

The Pat^t. was very unwilling to have much
 force applied, he however at length consen-
 ted; immense force was applied but all
 in vain, The Pat^t. was mov^g. bla^d. ac. deliq;
 Animi and Dr. P. was able without assis-
 tants to slip the bone in its place.

The action of the Muscles is not the only
 obstacle the Surgeon has to contend with,
 the Capsular ligament forms adhesions
 round the bone & these must be torn be-
 fore the reduction takes place —

To accomplish this purpose much

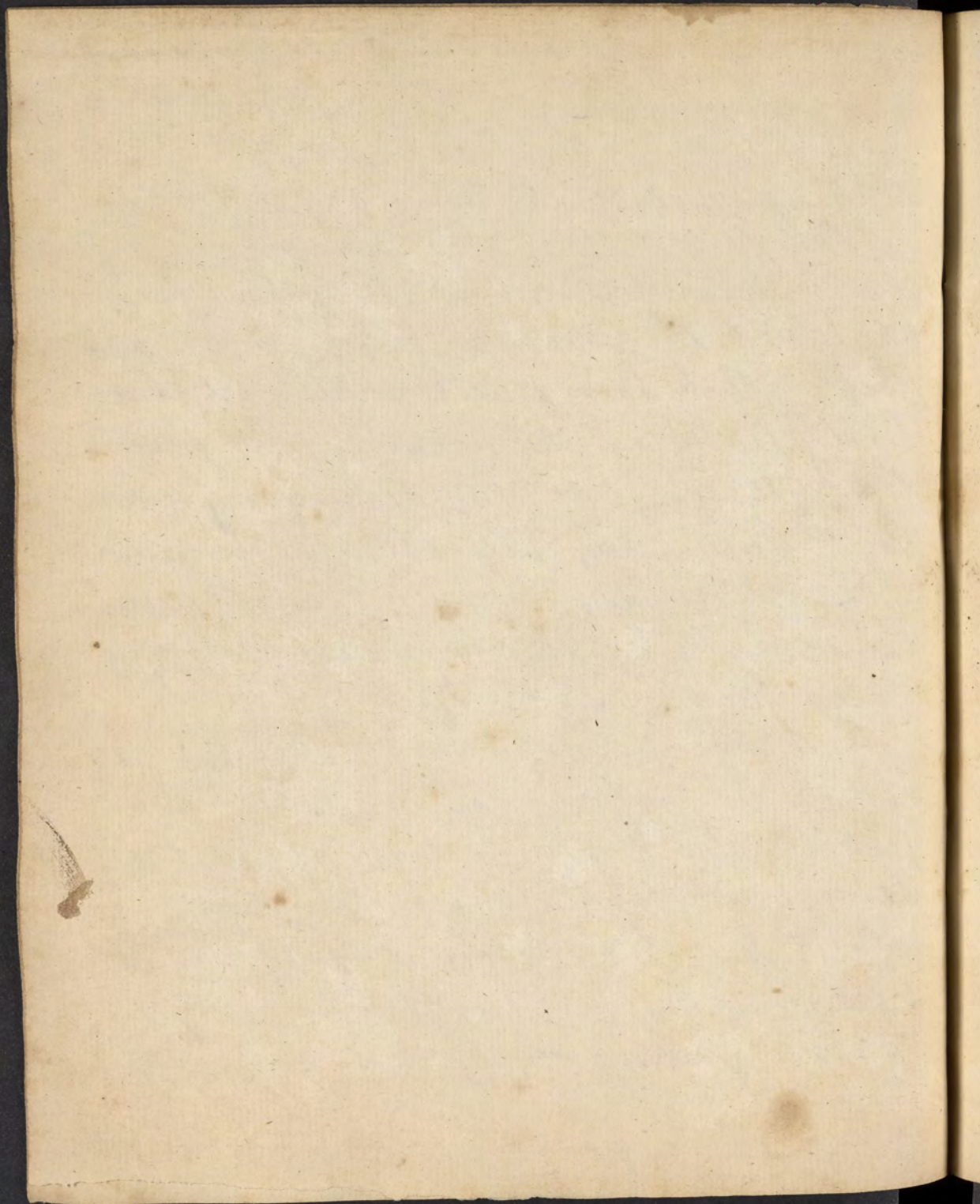


force is required — In these cases there is very little resistance from the Muscles, & therefore Dr. P. was not think V.S. of any importance

When the force is applied as above directed, except that instead of the hands of assistants being applied to the Acromion process, a quilted rubber Buck Skin is to be applied at this part & fixed to a staple in the floor or given to assistants. — It may be necessary to make use of Pullis See, as soon as the reduction is accomplished, a piece is to be applied under the Arm, & a bandage to prevent its being again luxated.

Dr. P. never failed in reducing the bone to its proper place but twice, One patient refused to submit to the application of the requisite force & the other was irreducible

When the luxation is Forward the bone rests between the glenoid cavity & the coracoid process — the reduction of this



75

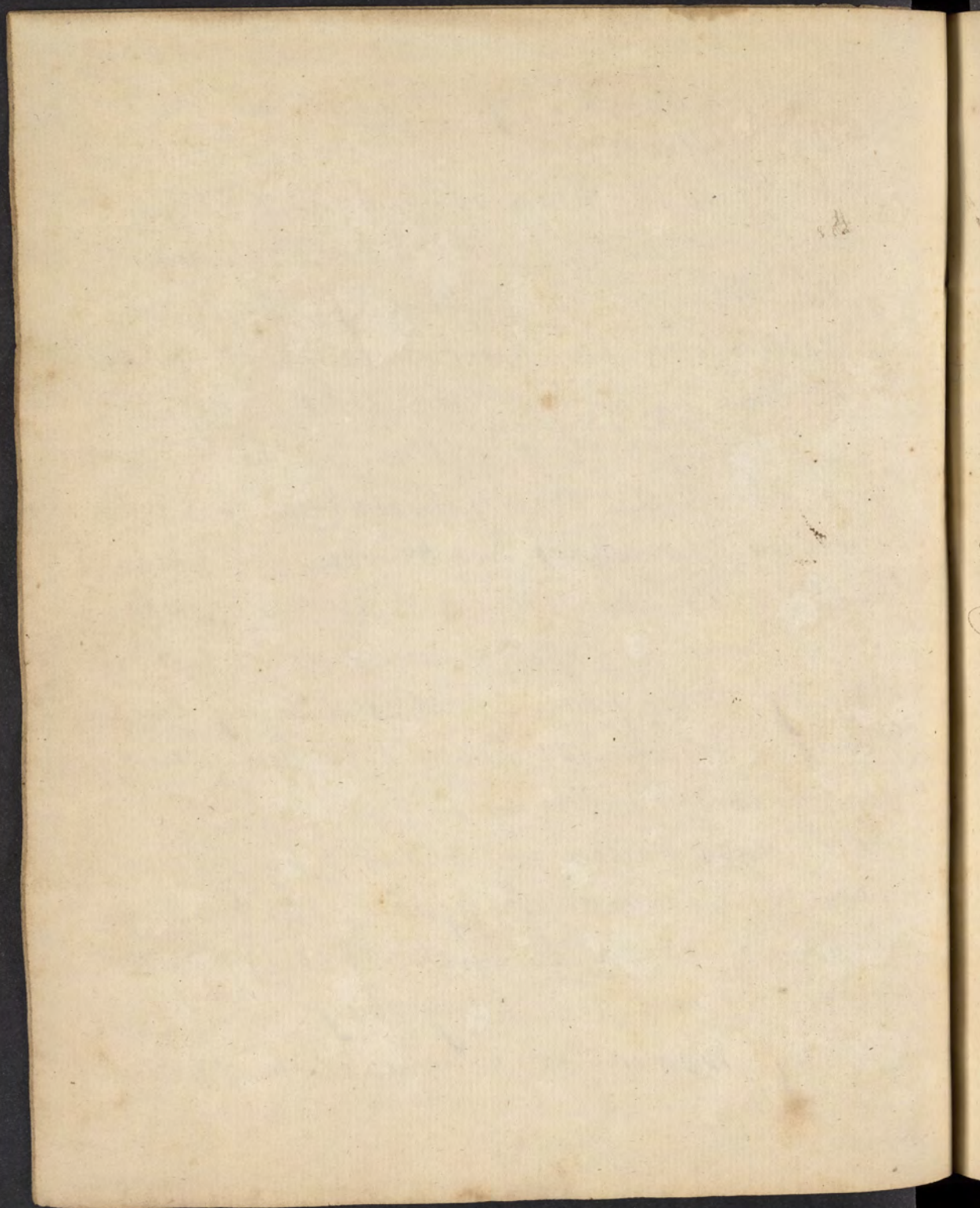
we would think easy, But we mistake, it is very difficult. —

Sometimes the head of the bone will pass over the coracoid process & rest between it and the Clavicle, the difficulty of effecting the reduction in this case is great, much force was used but little effect was produced, at length the direction of the force being changed, counterextension was made upwards & forwards & extension downwards & backwards the desired effect was produced.

There is another luxation which occasionally takes place & that is directly backwards Dr. P. has never seen but one case of this kind. —

He was called in, about a half hour after the accident happened, the head of the bone was on the back of the scapula its reduction was very easy —

Many modes for the reduction of fractures



have been recommended and adapted,
this above described is the least objectionable

In fact it appears that the only thing
to be kept in mind upon all occasions is,
that counterextension is to be made from
the coronoid process.

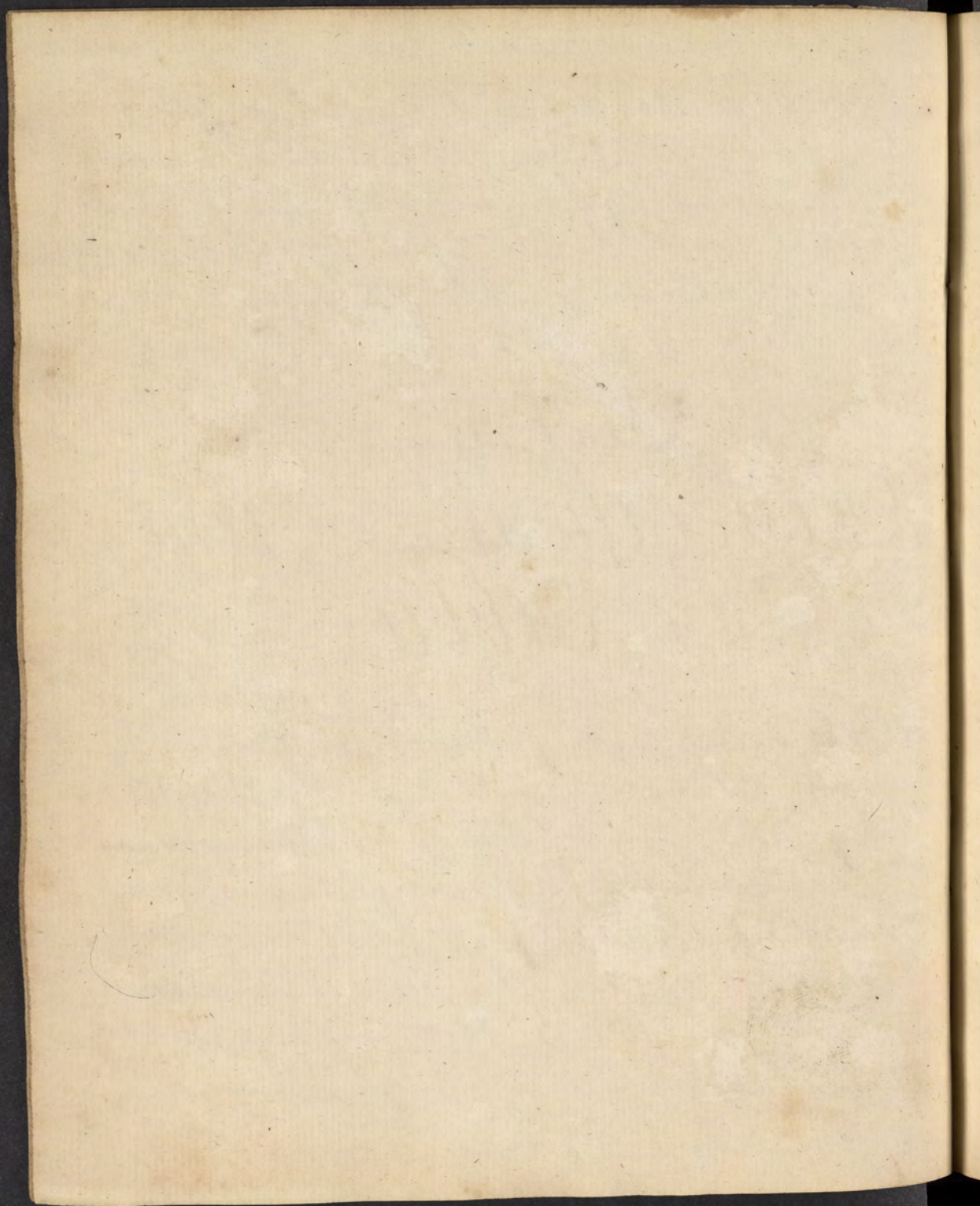
Sect: 31st

Dislocations of the Arm

At the Elbow

Dislocations of the forearm at the
Elbow joint rarely occurs, but we may
sometimes be called to it — The accident
may take place upwards & backwards —

In this case the coronoid process will be
found in the cavity of the os humeri formed
for the olecranon, the arm is shortened
& the forearm is bent on the arm so
as to form an obtuse angle.



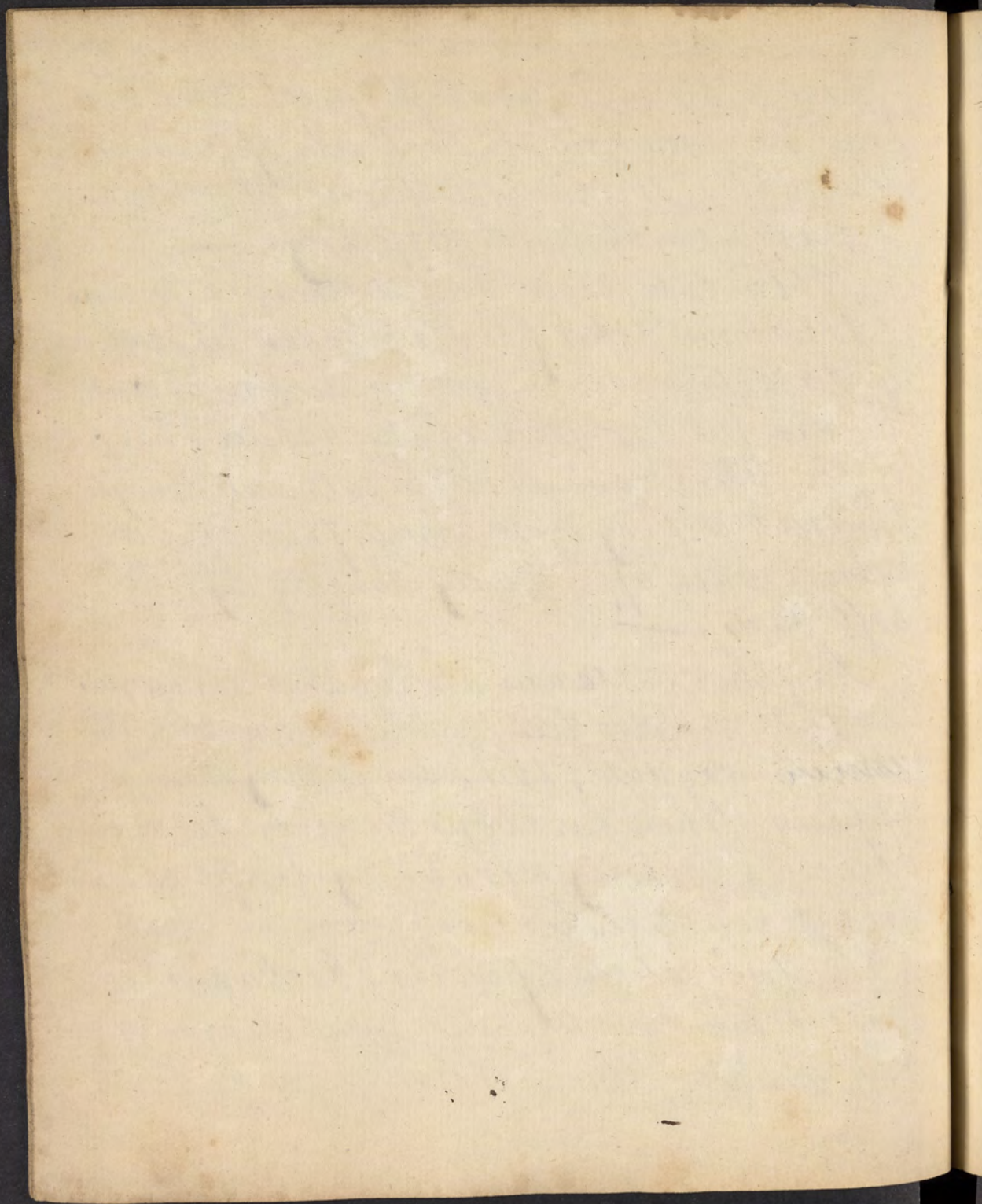
277

There is an unnatural projection of the
bone & we can feel the hook like appearance
Olecranon, the radius is fixed & the hand
is moved with much difficulty.

There can never be a dislocation forwards;
it sometimes takes place sideways & is easi-
ly discovered as the joint is disfigured and
we can feel the head of the Radius & hook
of the Olecranon over the external Condyle;
the joint is very loose and appears as if it
were broken off & merely hanging by the
soft parts.

In other instances the luxation is inwards
& in this case we feel the Olecranon over the
inner Condyle; this joint is very loose &
appears. These luxations however seldom
occur & are easily reduced by simple exten-
sion & counterextension.

The dislocation upwards & backwards is
most common - There is some danger of
confounding this accident with the frac-



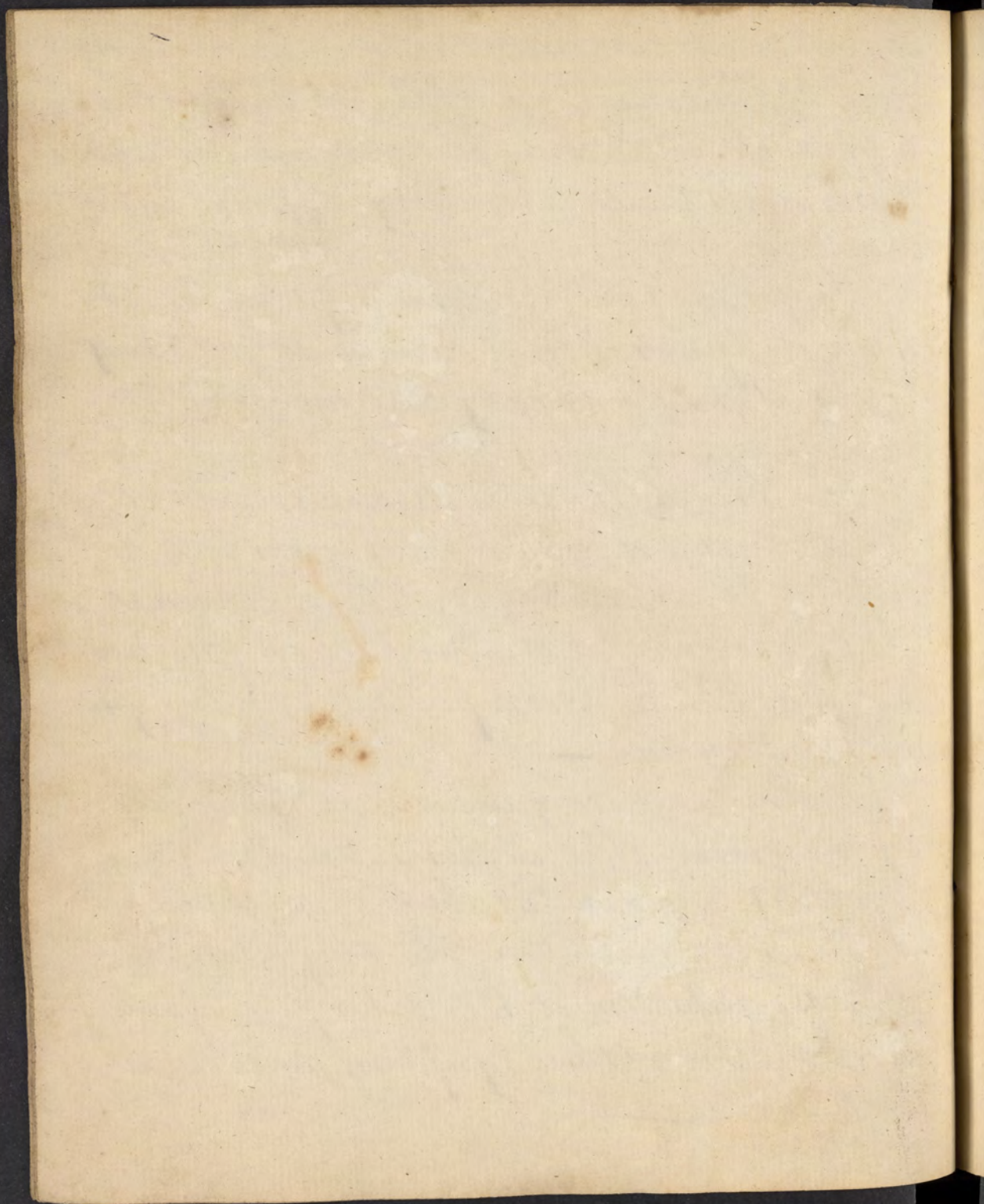
78

— here of the lower end of the Os humeri & it is of much importance to distinguish between them as the treatment is very different in the two Cases. —

If for instance we were to place a luxated limb in splints & let it remain so for 3 or 4 weeks it might be very difficult to effect Reduction. —

The French Surgeons declare that if the luxation is not reduced in 4 weeks it is impossible to accomplish it, This is incorrect Dr P. has reduced it after 6 weeks. But was not ever able to accomplish it after the lapse of this period. —

It is to be distinguished from Fractures by observing that in this latter case (i.e. Fracture) we can feel the fragments or move the pieces on each other, & is easily reduced; But the displacement soon takes place again. Now neither of these symptoms exist in case of luxation. —



79

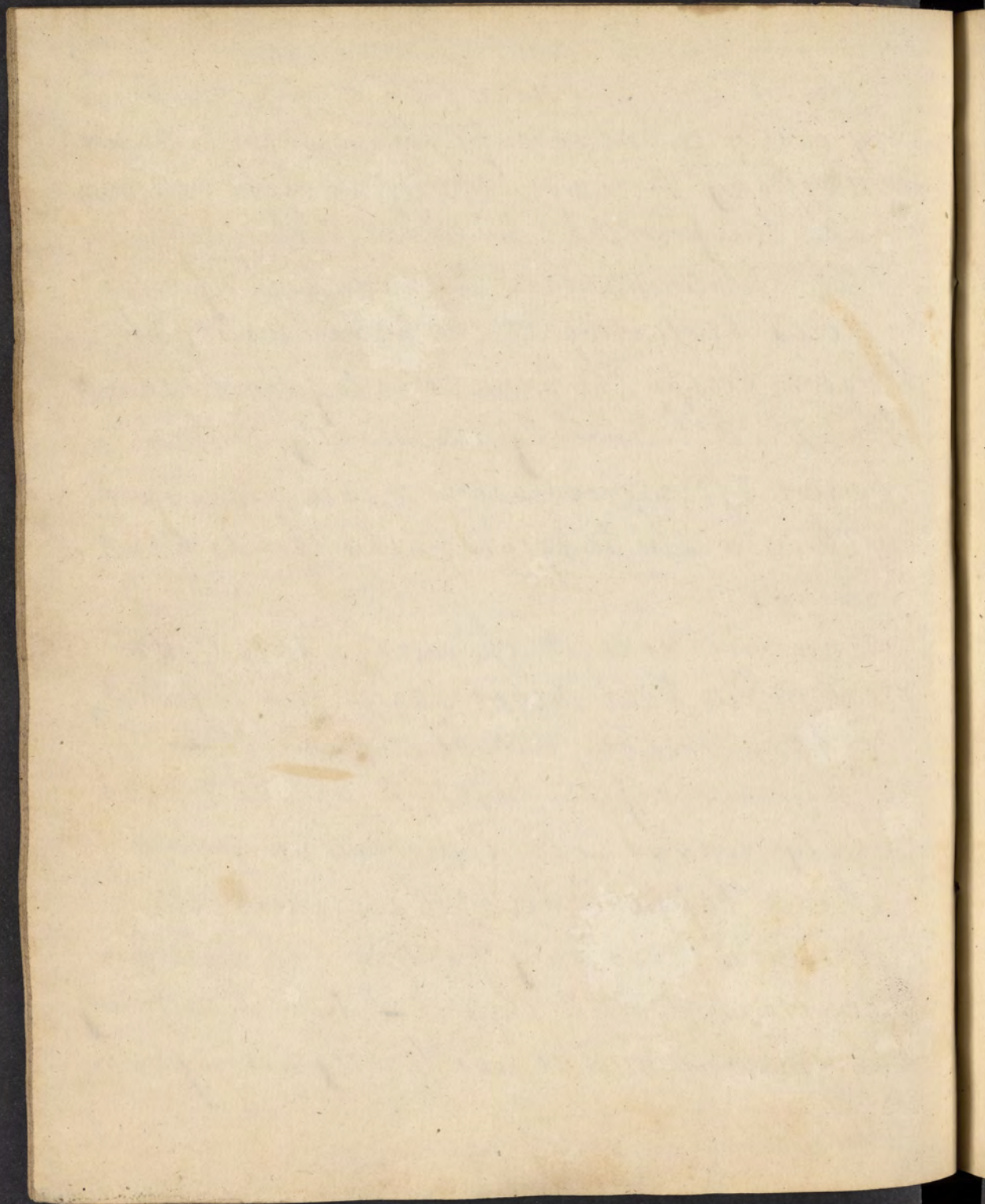
If the Accident be recent its reduction is very easily to be accomplished — Some extension is necessary to remove the effect of the Muscles; for this purpose not much strength is requisite.

The Counterextension is made high upon the Humerus & extension at the hand & wrist, the Surgeon clasps the Arm so as to place his thumbs about the Os humeri & pulls directly backwards. extension & counterextension is then made & with his thumbs the Surgeon pushes the Os hum. forwards. —

When not reduced the joint is stiff for a great while & can never again can be flexed the some motion will be regained. —

If it is a complete luxation on one side, it is easily reduced as the ligaments are much torn

A case happened to Dr. P. in which the dislocation was only partial & the ligaments of course but little injured — here the difficulty was immense but it was finally accomplished.



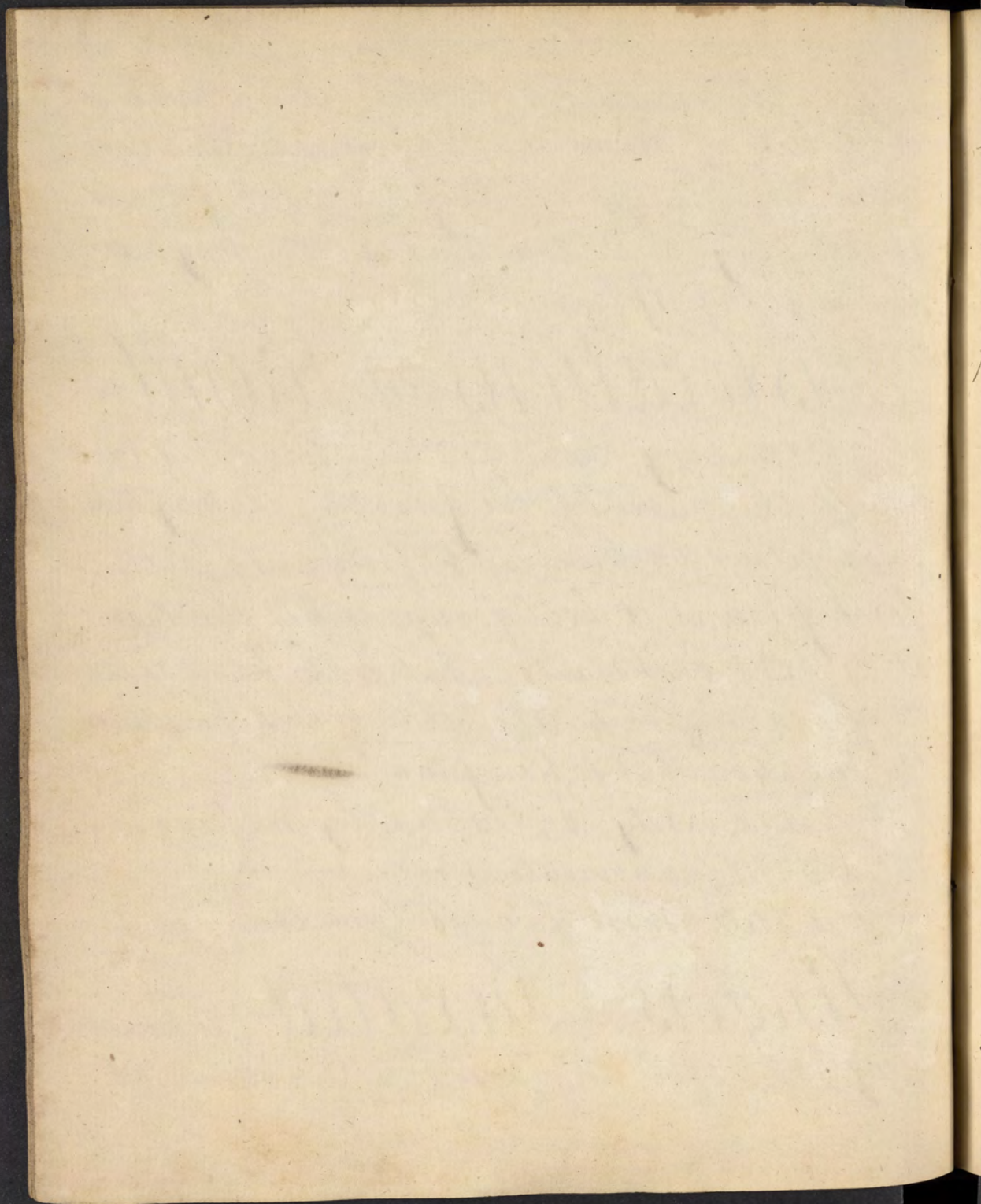
After the reduction of a dislocation we sh^d.
 make use of Slings &c — and if inflammation
 ensue the Antiphlogestic plan is to be followed
 if necessary as it sometimes is, we may use
 the Angular Splint. —

Dislocations of the Hand

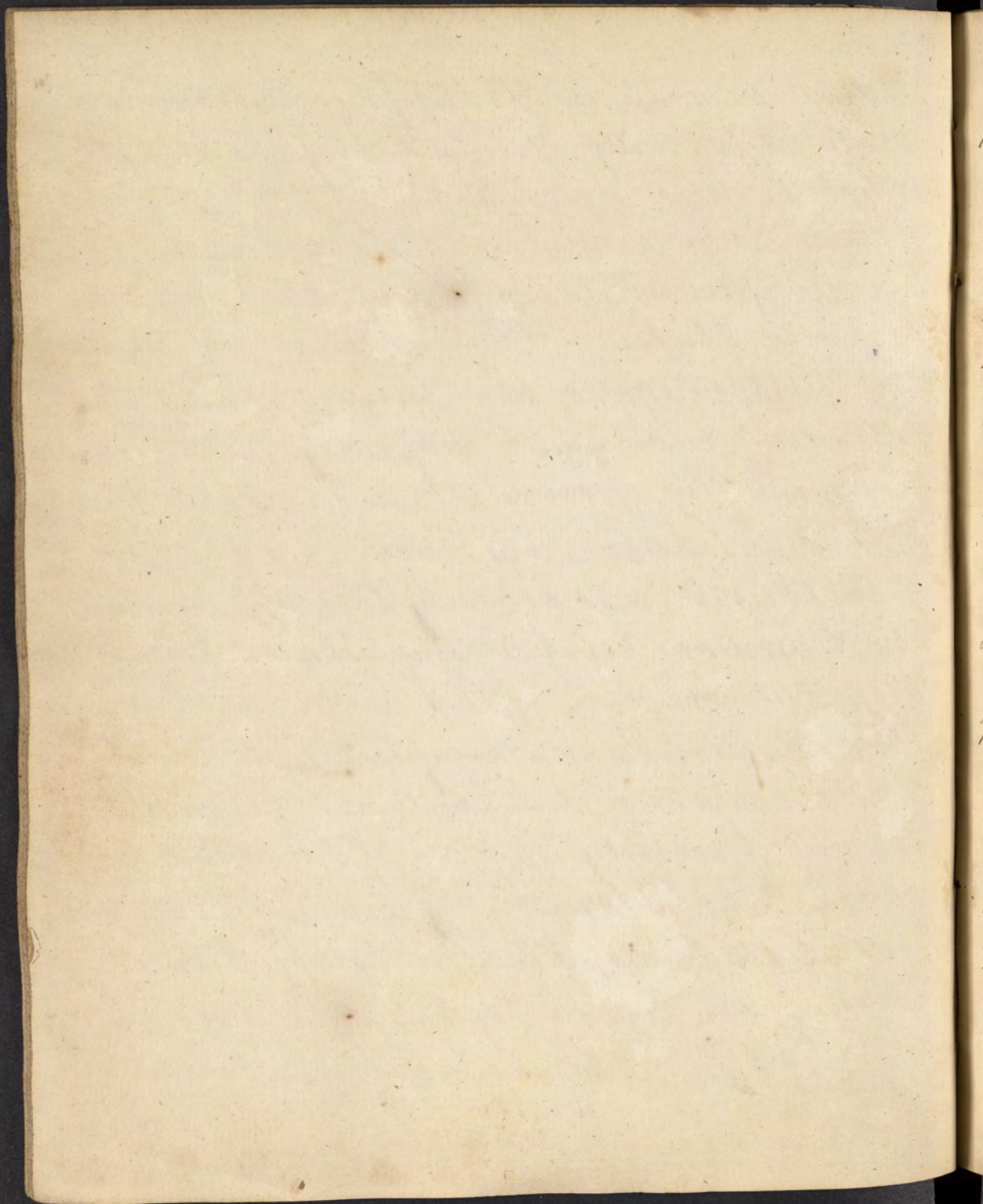
are very rare, Dr P — has never seen
 one in the course of his practice, it may take
 place either backwards or forwards, in the
 first place it is bent forwards & in the last
 it is bent backwards, that is the hand is al-
 ways in opposite direction to that in which
 the luxation has taken place. —

It would easily be reduced by making
 extension & counterextension. —

It is still more rare to find the
 of Fingers Luxated: when
 they are, it is always backwards — It



would be natural to suppose that considerable deformity would take place but it is not so great as might be supposed & difficulty has sometimes occurred in distinguishing it. One symptom is always present, the finger is perfectly stiff. — The reduction is easy, but the Dislocation of the Thumb has been attended with great difficulty in the reduction, Mr. Key records a case in which such violent extension was made that the End of the thumb was actually torn off, without the reduction being accomplished, I have seen but one case of this kind — in this the reduction was accomplished, while I was examining it — in what manner I cannot precisely say — If I had a case of this kind I would try bending the thumb but at all events, I can see no objection to cutting the lateral ligament as suggested by Mr. Bell no inconvenience could

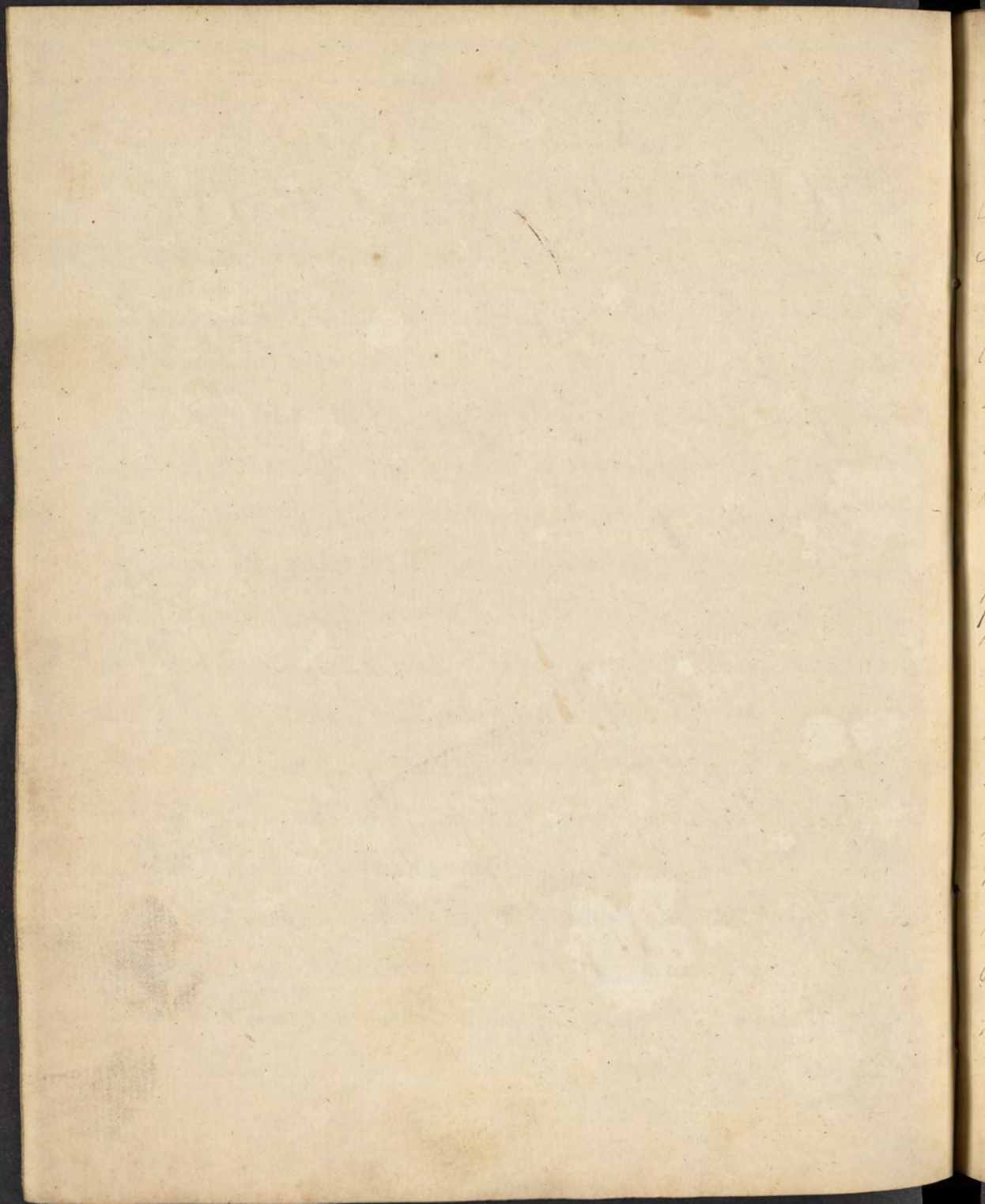


possibly arise from it

Luxations of the Thigh

The old Surgeons considered that it was almost impossible that the thigh should be luxated, as the acetabulum is so deep & the articulating connections so strong — This idea has been shown to be erroneous by subsequent experience & altho fractures of the neck sometimes occur, yet judging from what I have seen luxations are the most frequent perhaps in the proportion of 3 to 1 — there are not so frequent as has been imagined many fractures of the neck being mistaken for Luxation —

The thigh bone is sometimes luxated Backwards & Upwards in the bosom of the ilium here the Toes are turned inwards sometimes it is luxated downwards & for-
wards into the here the

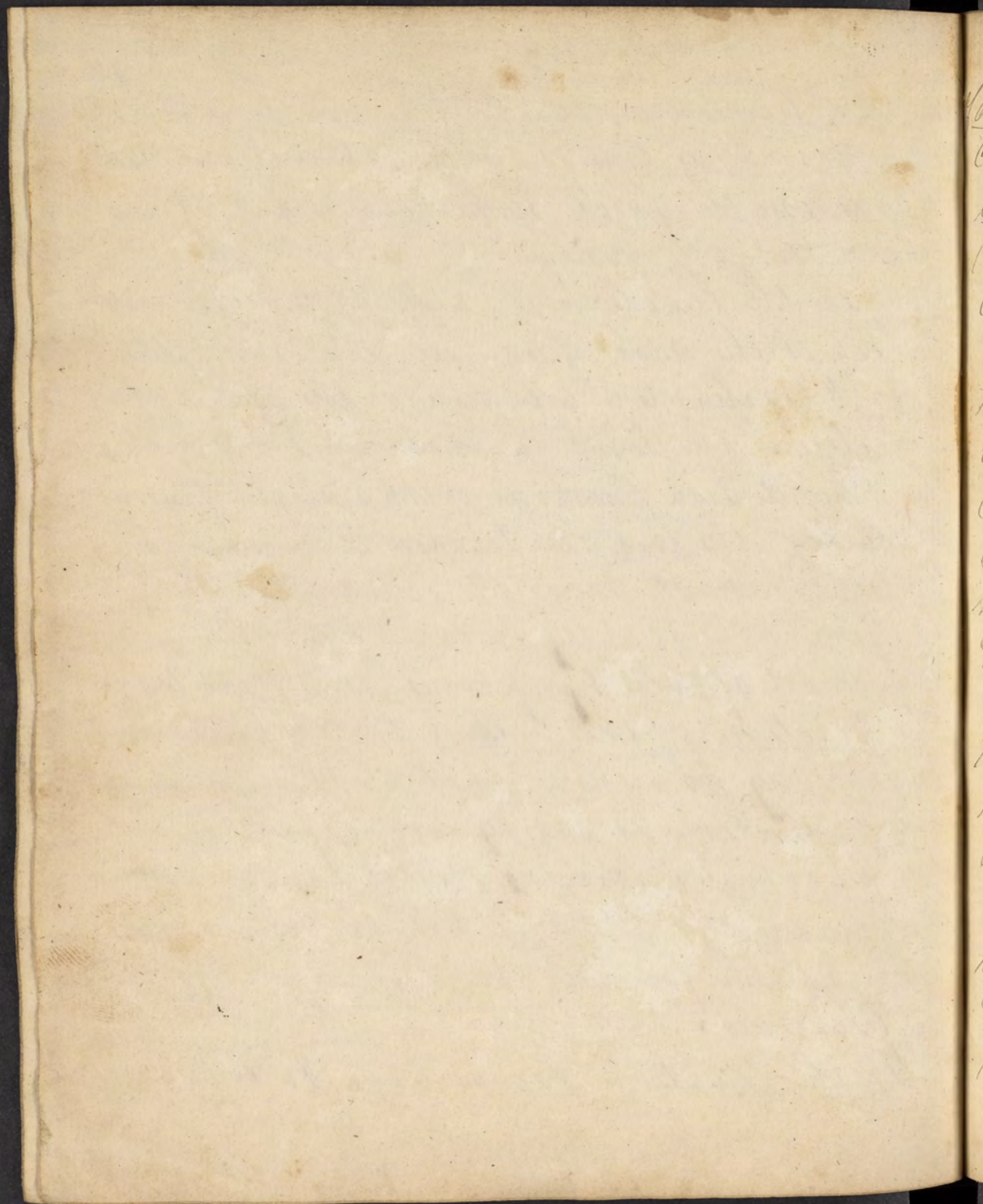


They are turned outwards. Sometimes it is luxated forwards into the groin & sometimes backwards into the great Ischiatic Notch; of this I have seen one case.

When the luxation is backwards & upwards which is the most frequent, the head of the bone & trochanter are nearer the spine of the ilium, the limb is shortened 2 or 3 inches the knee drawn inwards with a slight flexion of the leg, the toes also turned inwards. — The patient cannot move it — Although the surgeon can slightly rotate & flex it.

In most of these symptoms, it differs from the fracture of the neck; to which however may be added, that in these fractures the reduction is easily accomplished, but the shortening recurs when the extension is removed, which is not the case in luxation & in the former case also exsufflation can be perceived.

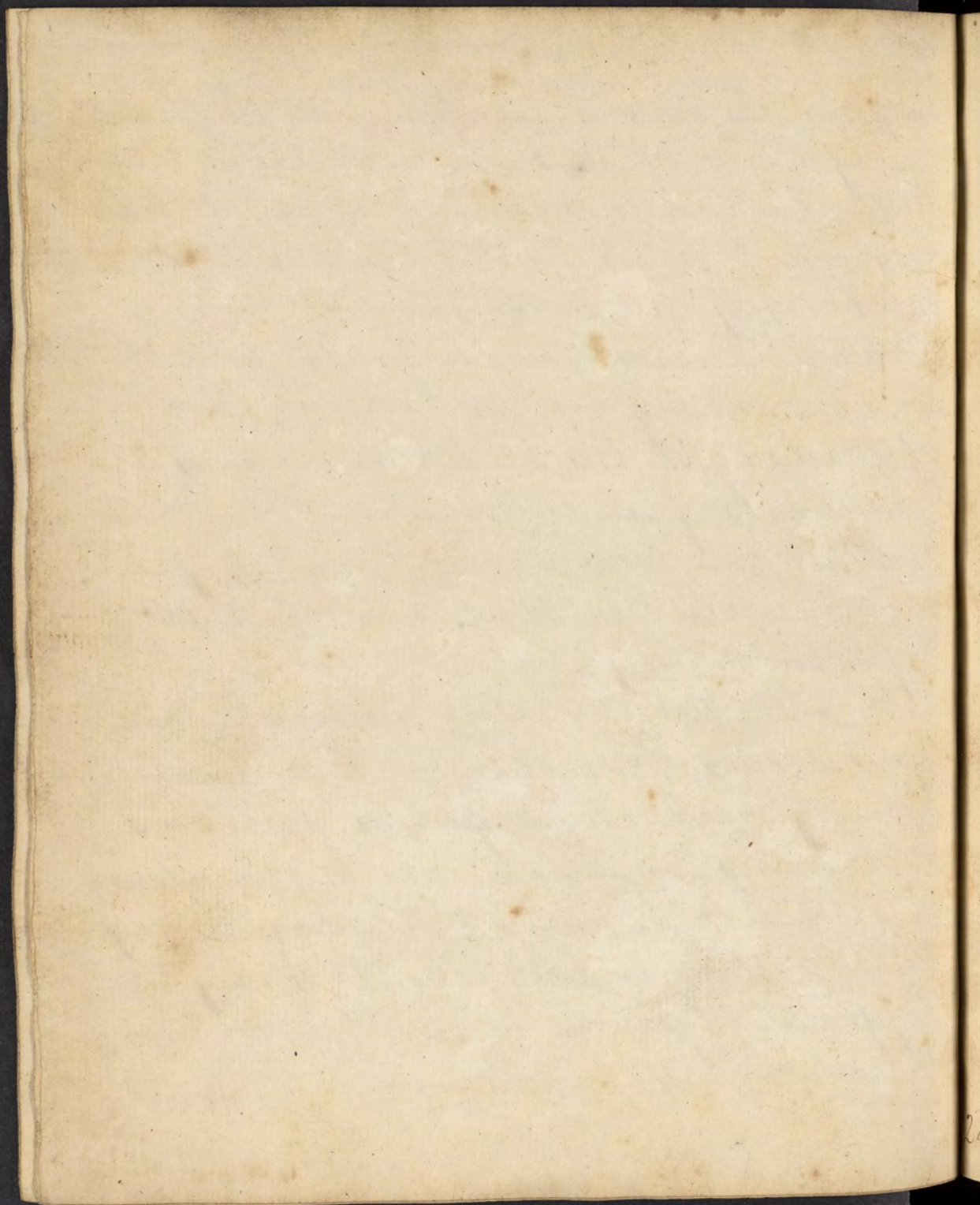
In the luxation downwards & also in that



Forwards the Limb is lengthened in the former
 Case upwards of an Inch, in the latter but
 little, the foot is turned outwards & the knee
 removed from its fellow — besides the head
 can be easily felt in the groin —

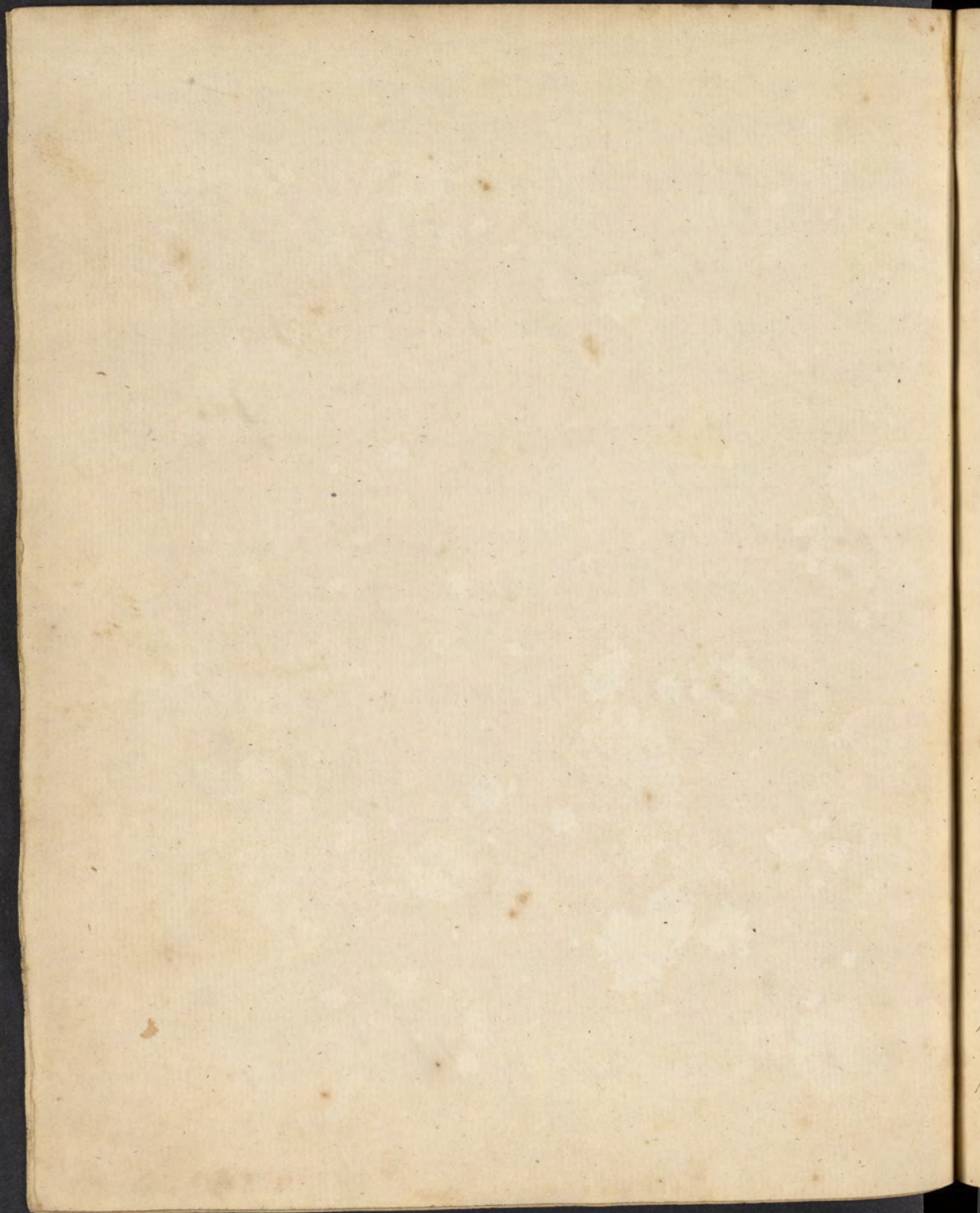
When backwards you can feel the head of
 the bone no crepitus can be heard as in case
 of fracture the toes are turned inwards &
 considerable pain is produced — The French
 consider this as occurring secondarily, I
 have however seen one case in which it
 happened directly —

In Morbus Coxarius dislocation some
 times occurs from tumour in the acetabulum
 usually backwards & upwards, sometimes
 downwards — This should be remembered,
 as it would be useless & dangerous to attempt
 the reduction in such cases, it is only when
 happening from accidents that we are
 to reduce luxations. —



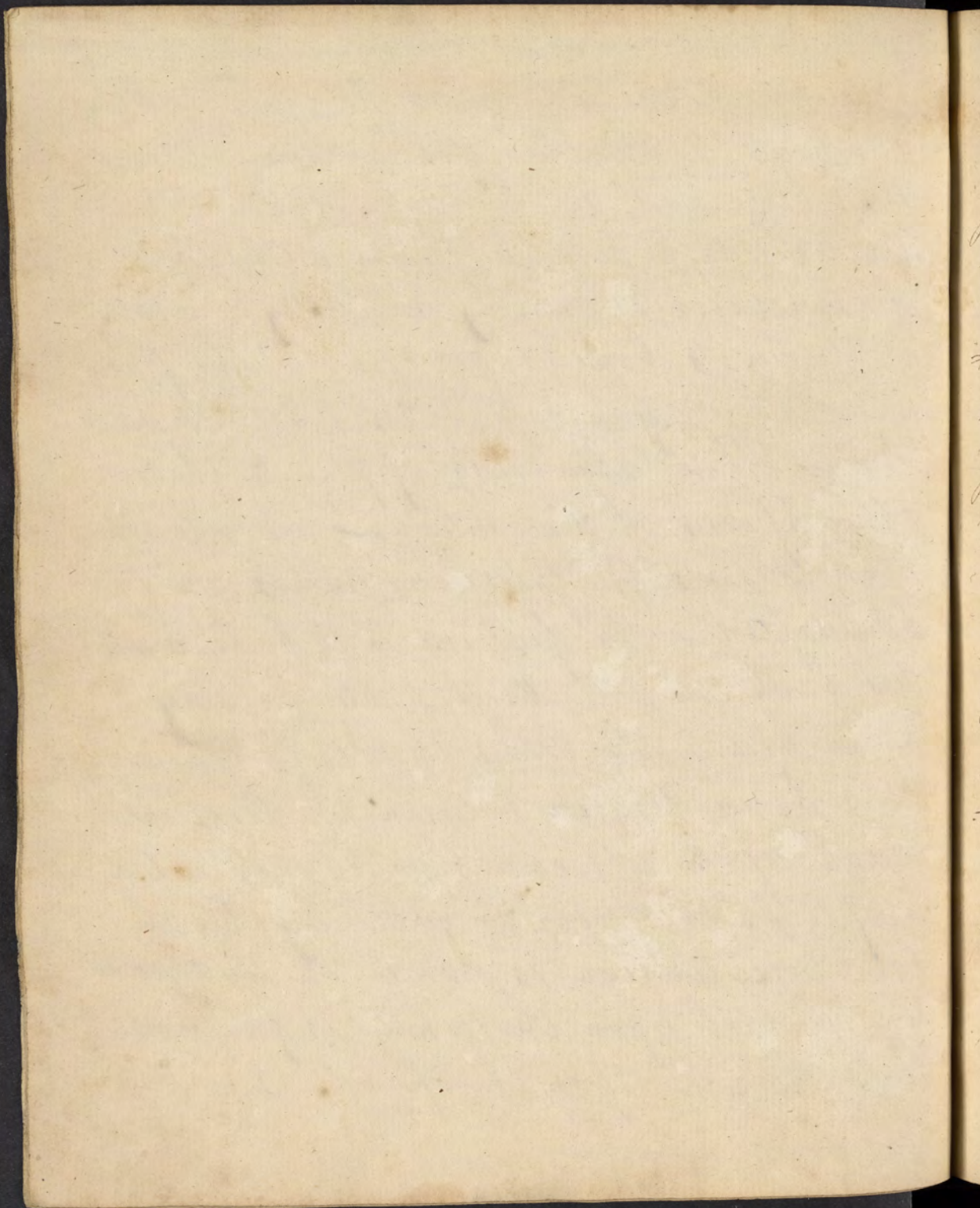
A second state of the joint may & has been mistaken for Luxation - & that is mere Contusion of this Article - If the patient stands on his sound limb & of course the pelvis falls on the injured side, hence the limb has appeared lengthened as if luxated downwards - I have seen surgeons very much perplexed in such a case, but the difficulty will vanish - if you remember in your examinations to have the Pelvis Straight - as then you can accurately determine whether one limb is lengthened.

The Method of Reduction in all these several cases of dislocation is very similar - In all of them, two objects are to be kept in view, the first is to draw the bone to the Acetabulum & the second one to raise it over the high Margin of that Cavity. Now these indications apply to each of the different kind of Dislocations, when



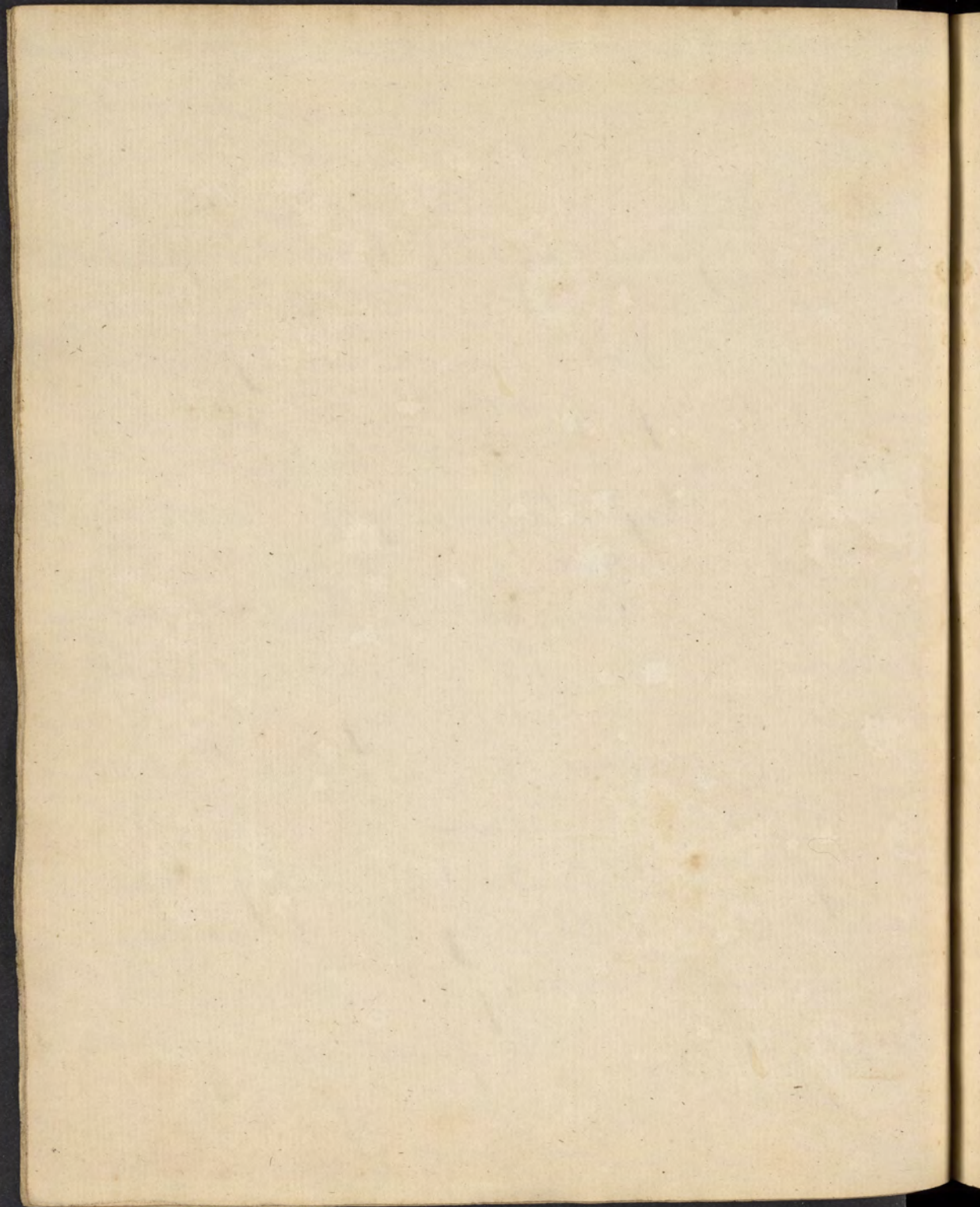
86

upward extension must be made to bring
the head of the bone downwards - & then it
is to be raised on the edge - when the
dislocation is into the foramen magnum
the extension is equally necessary to draw
it from its bed & to get clear of the part
opposing its progress to its natural situa-
tion. - The same thing applies to the two
other species of dislocation. - Now to affect
these objects the following means are to
be adopted - The patient is to be laid on
his back in a mattress, table, or any
hard bed - the Pelvis then to be fixed
by a band passed between the Scrotum &
thigh of the affected side & fastened to a
staple in the floor or wall by this the
counterextension is made on the affected
side, which upon the whole is preferable
to making it upon the opposite side, as



87

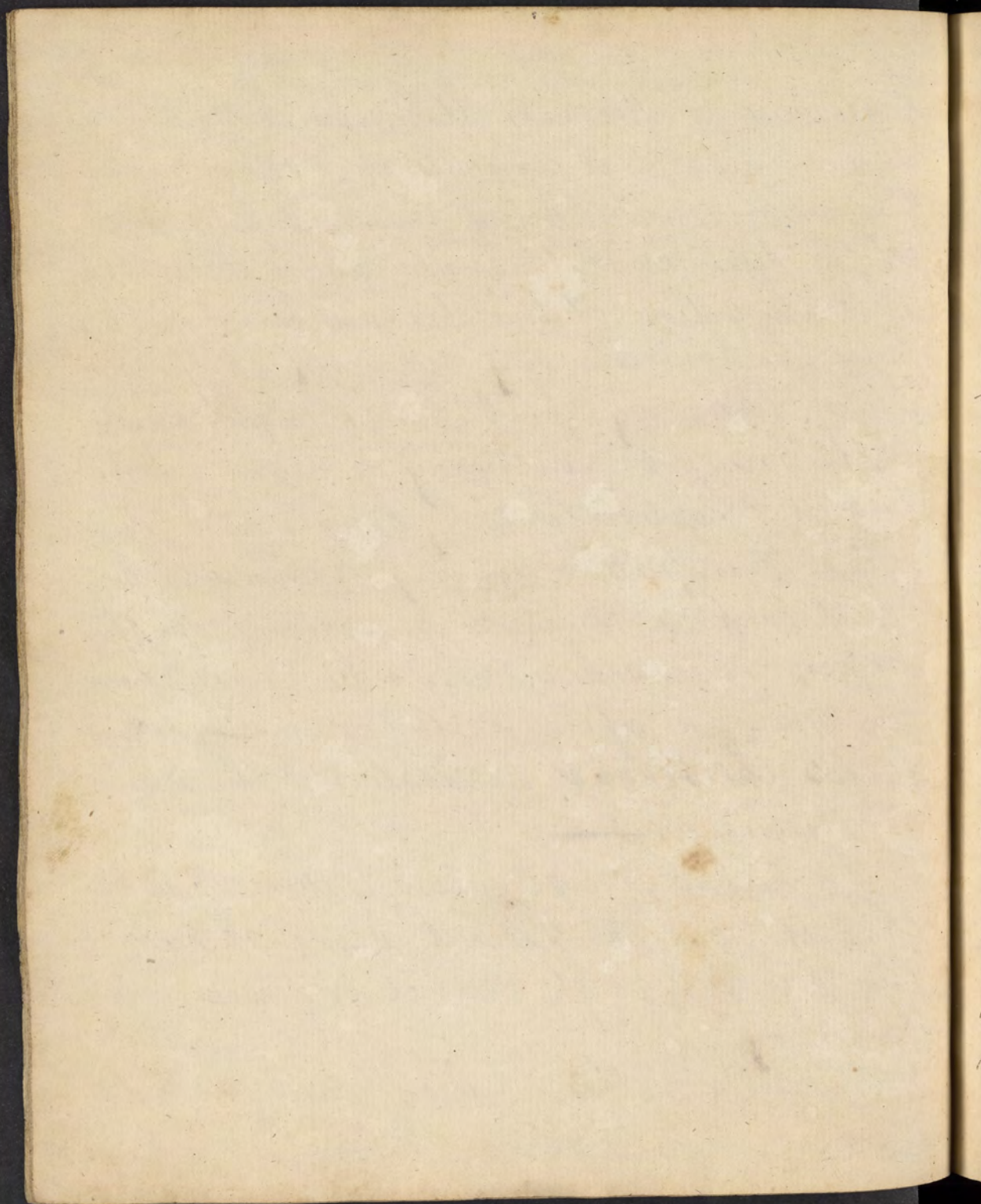
recommended by Boyer — the extension is made by passing a towel around the thigh just above the knee, to which is fastened two strong straps one at each side, I prefer this to making the extension at the ankle as advised by the French & we are able by flexing the Leg to employ it as a Lever, as the knee joint is not put upon the stretch, which is sometimes very hurtful, by this contrivance the first indication can be fulfilled & the head of the bone be brought to the brim of the acetabulum, after this, a band to fix the pelvis is passed around the body, just below the spine of the ilium, & above the trochanter or head of the bone — this is fixed to a staple on the sound side of the patient, so that it cuts the body at right angles — Another band is now passed around the thigh, as near to the perinaeum, as possible,



& delivered to assistants standing in the affected
 side. Now it is evident, that the extension
 & counterextension being made in the direction
 of the limb in the manner above described,
 that the action of this second band would
 pull the bone directly outward, the pelvis
 being fixed by the band at right angles
 to the body, or as it may be called by the
 second counterextending band; the bone
 being thus pulled directly outward - the head
 must in some measure be drawn from the
 pelvis, or in other words be raised above
 the margin of the Acetabulum - which
 fulfils the second indication & the bone
 is reduced. —

I have but one objection to this mode &
 that is that the patient being on his back
 the Leg and thigh cannot be flexed when
 necessary. —

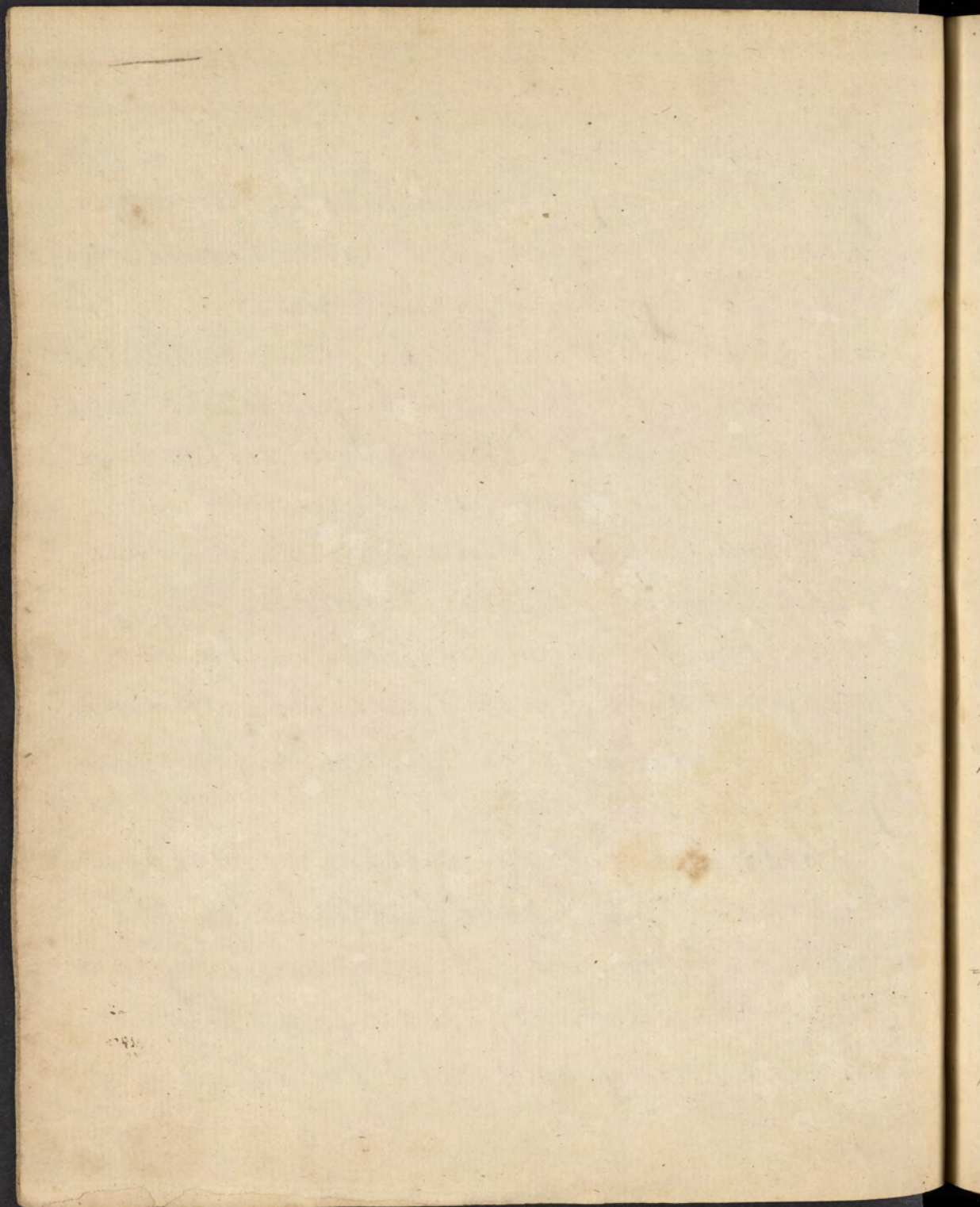
To obviate this, I have placed the seat



on his sound side. passed the second counterextending band around the pelvis at right angles to the body, through holes in the table & fixed it to the floor. — I made the extension outwards by passing the band around the neck of an assistant, who stood on the table & placed his knee on the pelvis, the extension and counterextension in the direction of the limb was made as before. —

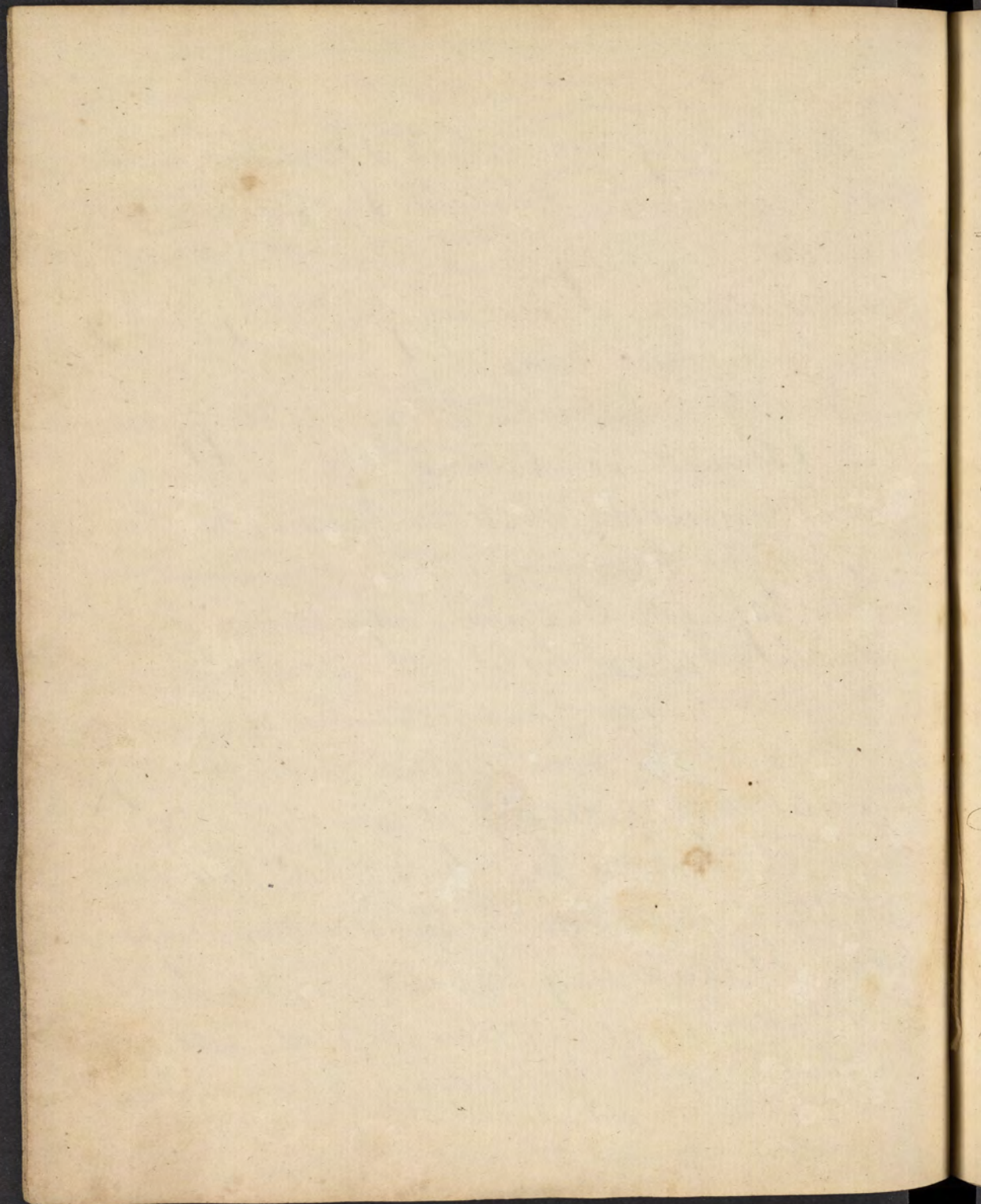
By this means I could bend the Leg & use it, as a lever in rotating & loosening, the head of the bone from its attachments. — In this manner, I have never failed in the reduction of a thigh bone, being assisted in some cases by bleeding. —

I have seen but one instance of luxation forwards — this I have published in the Medical Museum — it was caused by a violent abduction of the thigh — the part was bleed freely and with some trouble it



was reduced.

In the only case which I have seen luxa-
tion backwards - I thought I would find no
unusual difficulty in its reduction, but I
was mistaken, I blew my patt. very largely,
and persevered more than an hour, but with
no success whatever. I began to be apprehen-
sive I should not succeed, after a little reflec-
tion I conceived, that the head of the thigh
bone might have passed through a small rent
in the capsular ligament, as a button passes
through a button hole, & therefore, the violent
extension which I had made served to draw
the neck of the bone against the extremity of
this slit & thus render it impossible for the
head of the bone to re-pass thro' this rent
into the acetabulum - Under this supposi-
tion, I placed my patient on his side,
and endeavoured to relax the rent, and reduce
the bone in the following manner -



91

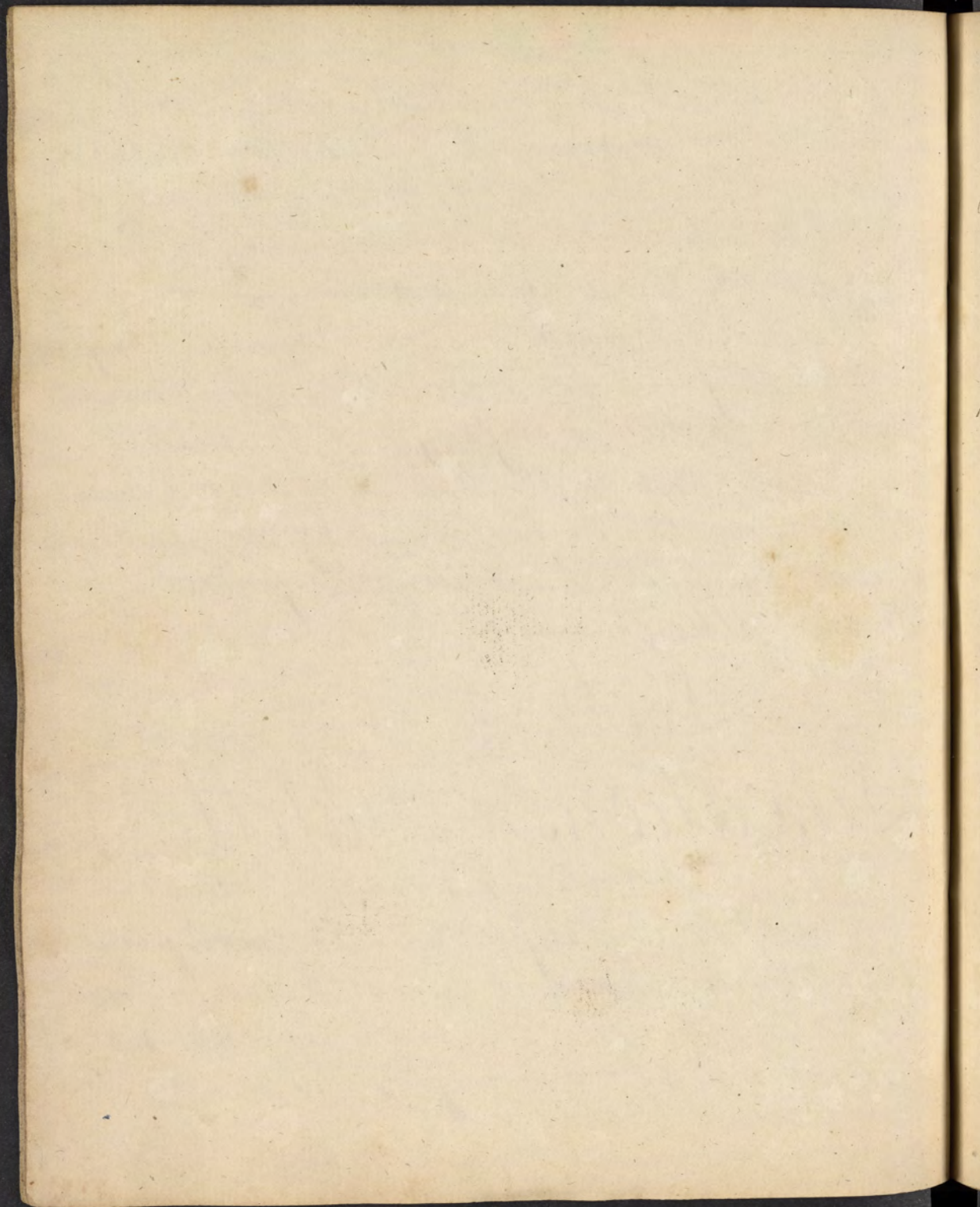
Took hold of the knee, & drew it directly upwards or performed an abduction of the thigh, when this was carried as far as possible, I struck the trochanter with my hand & drove the head into its socket. —

When Dislocations are not reduced, they disable the part, for several Months — during this time nature is employed in forming a new joint, which she does, as that some degree of motion can be performed by the Limb, so that the part is not altogether prevented from walking. —

Lect: 32.^a

Luxations of the Patella.

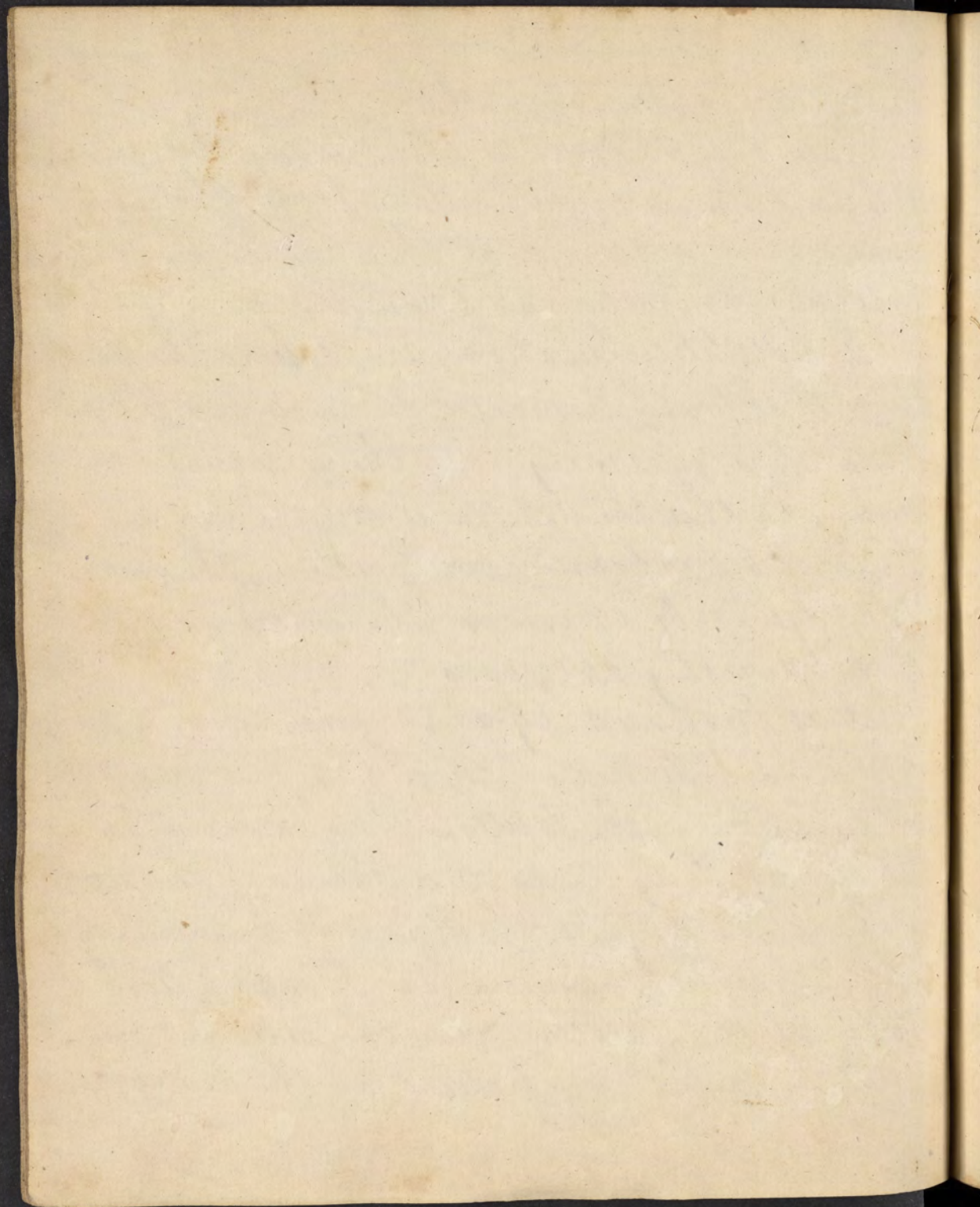
Sometimes occur, & they are complete or incomplete. An incomplete luxation is, when it is not removed from the articular surface of the Os femoris, but lies on one of the borders, this is recognised.



by the deformity of the knee, the pulley like surface can be felt, as also the edge of the Patella & the anterior surface looks obliquely inward or outward, as the bone lies on the external or internal condyle.

The complete luxation are where the patella is entirely removed from its bed is very rare it is generally over the external condyle in this the Patella is thrown into a kind of a perpendicular position, the interior edge looks upwards, the anterior edge face directly outwards.

It is produced by great force acting, when the leg is extended - I have seen but one case of luxation of the Patella - This occurred in a young Lady, who was dancing, she fell something slip at the knee and immediately fell - upon examination I found a luxation of the Patella over the external condyle - I put my patient on the bed exten-

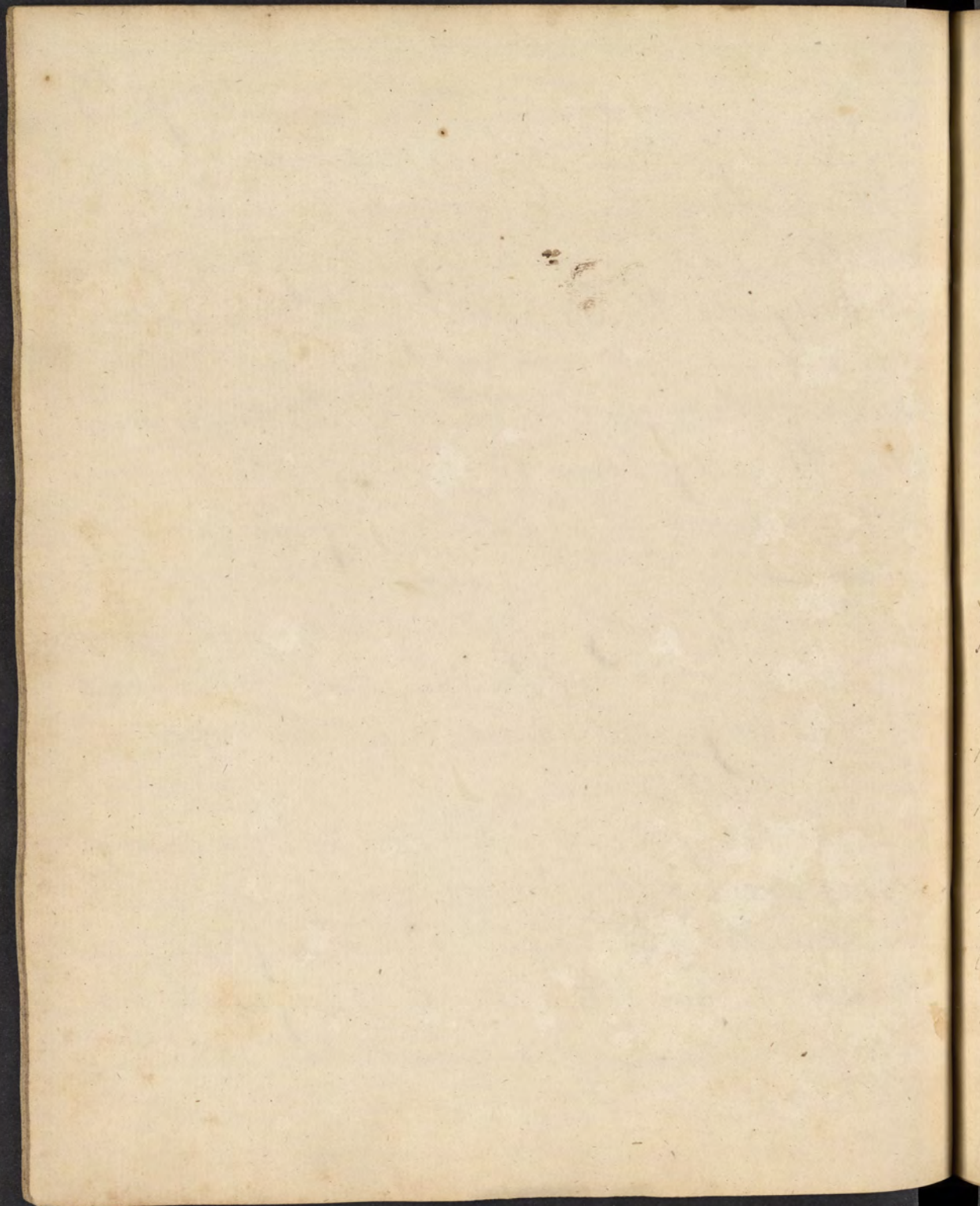


the knee & flexed the thigh a little on the pelvis & by slight pressure it was reduced. —

Dr Dorsey has had a case in which the Luxation was produced by attempting to raise the body on the leg, as the pat. was getting into bed — the Dr. exerted much art, & also much force, but was not able to reduce it — Finally some motion of which he was not conscious — the Patella slipped into its place. —

The difficulty appeared to originate from the contraction of the muscles — if this should afford any permanent resistance, of course it would be a deliq. —

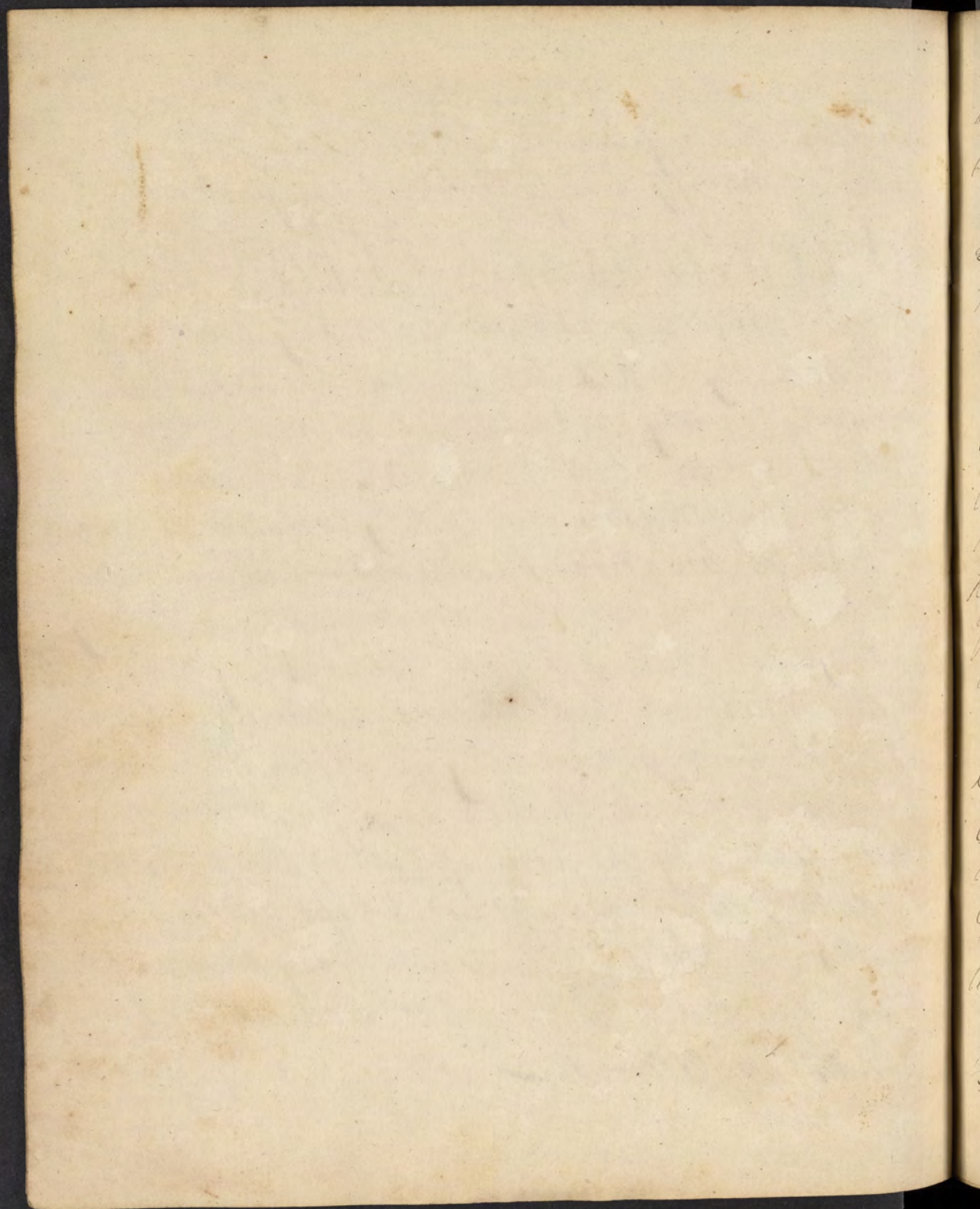
I have lately seen a person — who had many years ago a rupture of the tendon of the upper part of the muscles of the thigh, so that the patella descended rather lower on the condyles, he had been previous to the accident for a considerable



94

time subject to Rheumatism & by some sudden exertion the rupture was effected — at present there is merely a desquamation of the part

Luxations of the MUA at the Knee sometimes occur, but they are rare. It usually takes place over the external condyle, rarely over the internal. Pleistoe relates a case of its occurring forwards, & one of the students has lately related to me a case of luxation backward — When it takes place over the external condyle, it can be very easily ascertained by the usual symptoms, & as the ligaments are always somewhat torn the reduction is also easy — After the reduction the limb it should be kept at rest for some time. By the long splint of Desauces which should always be applied & kept on for several weeks, as the ligaments are very slow in uniting, the limb should not be used for 10 weeks or 3 months — as inflammatory symptoms



95

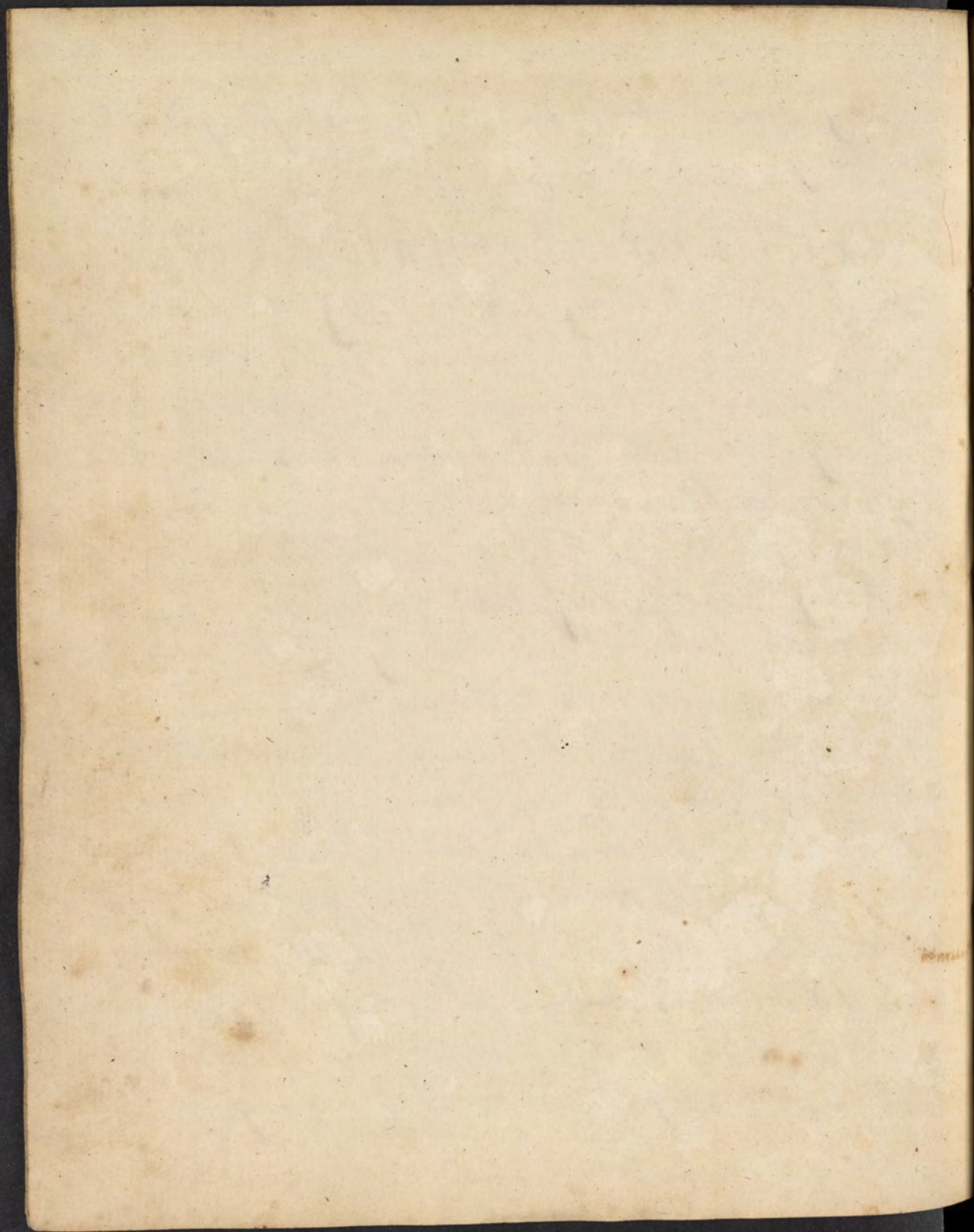
usually occur, Pl. I see are to be employed when necessary

Luxations of the Ankle generally take place laterally, & externally & are usually accompanied with fracture of the fibula

I have never seen a case of luxation forwards, A Lady wearing high heeled shoes, was running down stairs with considerable haste they caught in the carpet, the whole weight of the body was precipitated forwards, and the foot being fixed, the extremity of the tibia, was drawn forwards on the tarsi.

The Reduction was easily accomplished by extending & flexing the foot - But it was a long time before the consequent Inflammⁿ was subdued, & before the ligaments had so far healed, that the part. could walk, it was near 15 months before she completely recovered.

You will be often called to examine the Foot after any considerable injury, which



96

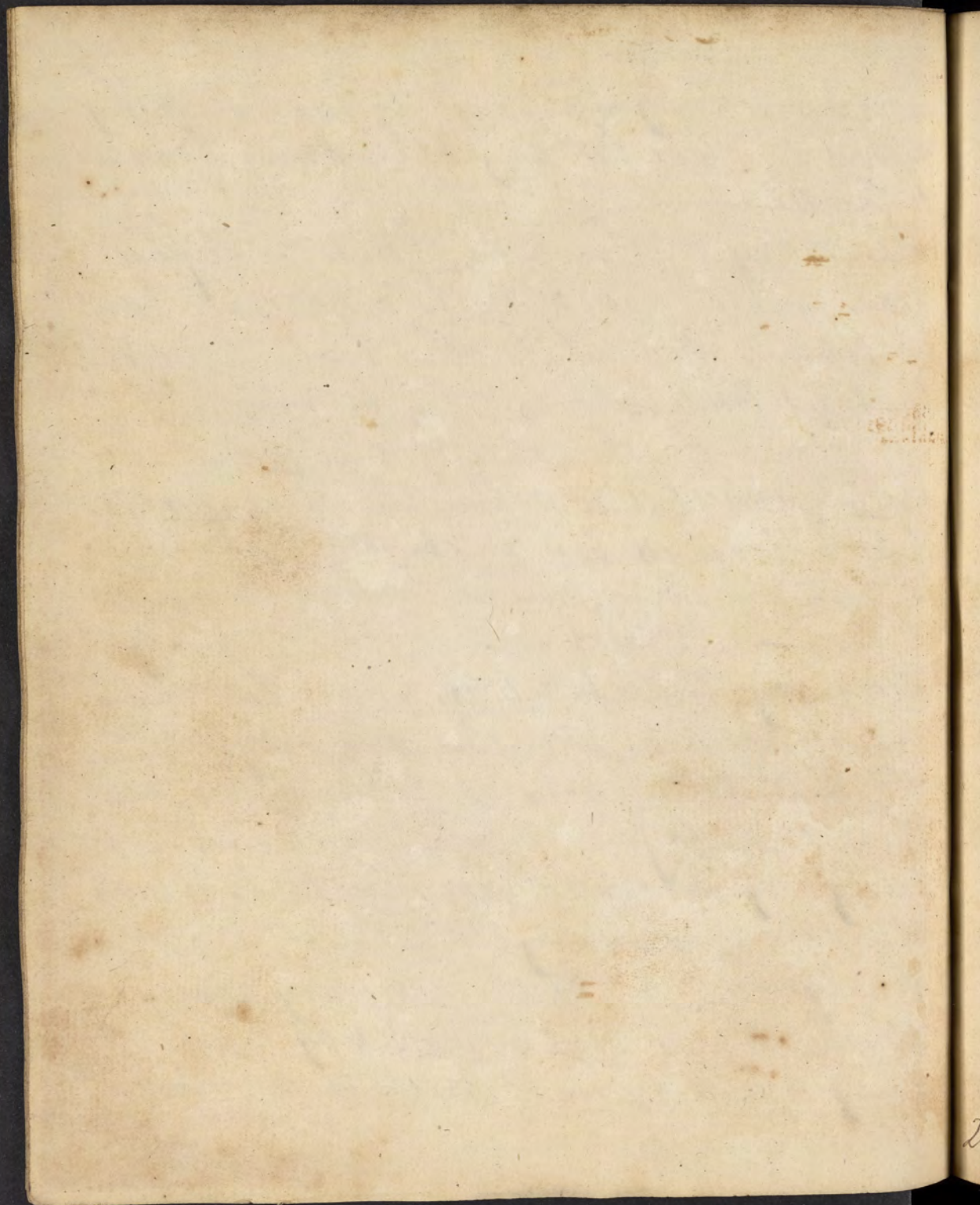
or succeeded by swelling, to discover as they express it, whether any of the small bones are dislocated. —

In many of these cases, there is no displacement, which can often be determined from an examination of the other foot, in which the same protuberances may be discovered. —

There is another case of Luxation at the Ankle — and that is where the astragalus is thrown from its bed in the Oscalus, & there is with it, a large wound through the integuments. — In such cases it was formerly customary to amputate the limb; but this is now discarded as altogether unnecessary. —

When the connections of the astragalus are almost destroyed. — when it adheres almost solely by its central ligament to the Oscalus, it is best immediately to cut it off. —

Anchylosis will be the necessary consequence whether this is done or not — & by taking it away a vast source of irritation is removed. —



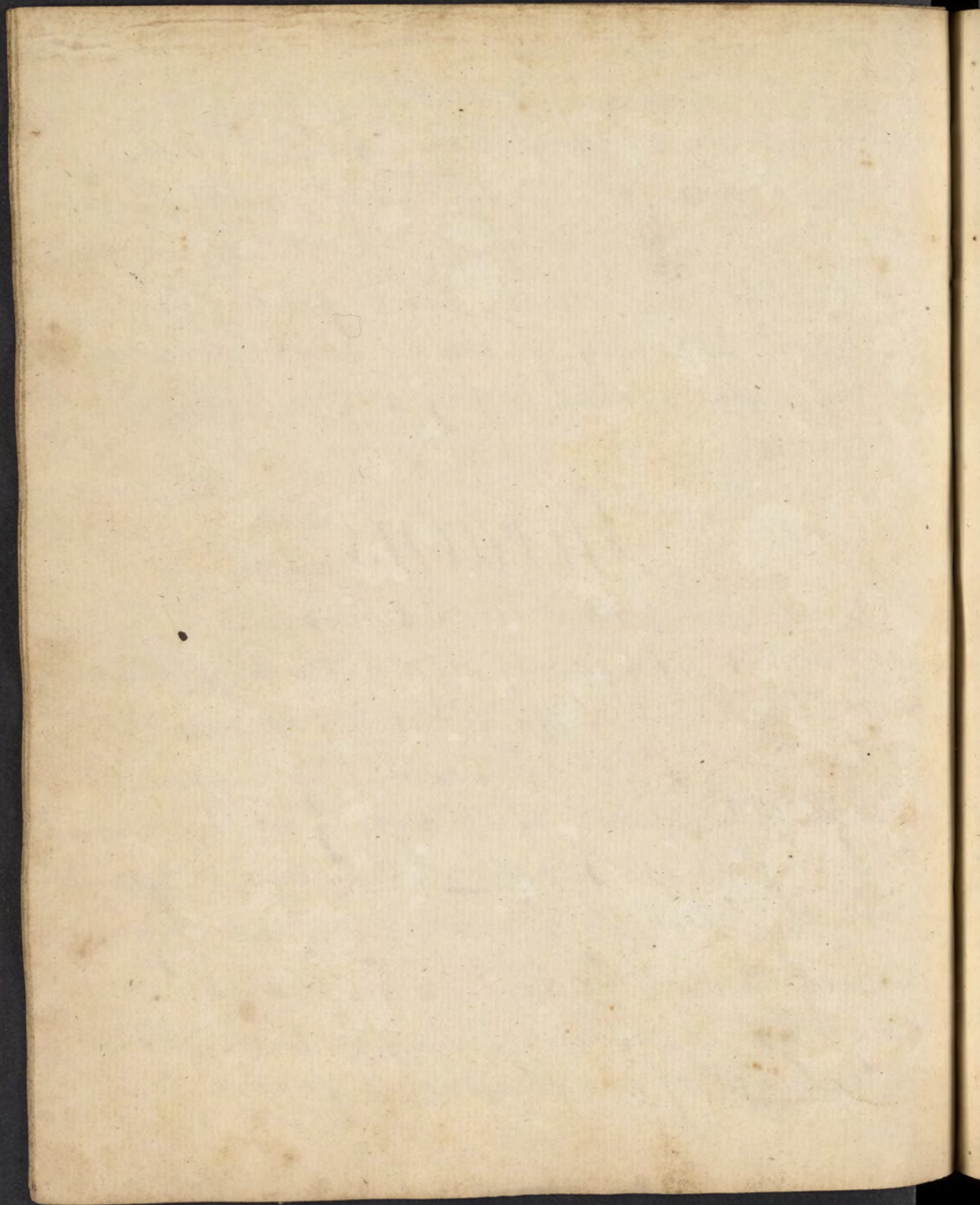
Do not think that I advise you in all dislocations of the Astragalus to remove it. By no means. It is only when its integuments are so much destroyed as to render it improbable that its life can be preserved.

Before entirely quitting the injuries of the joints I wish to say a few words on Sprains.

Sprains

These consist in a straining of the ligaments of a joint, often to the length of lacerating some of the fibres & of contusing the whole. It is always of importance to decide the nature of the injury to the joint whether it is Fracture, Luxation, or Sprain.

In the latter the Surgeon can move the part, which cannot be done in luxation & no Crispitus is evident as in Fracture. This stretching of the ligaments produce pain

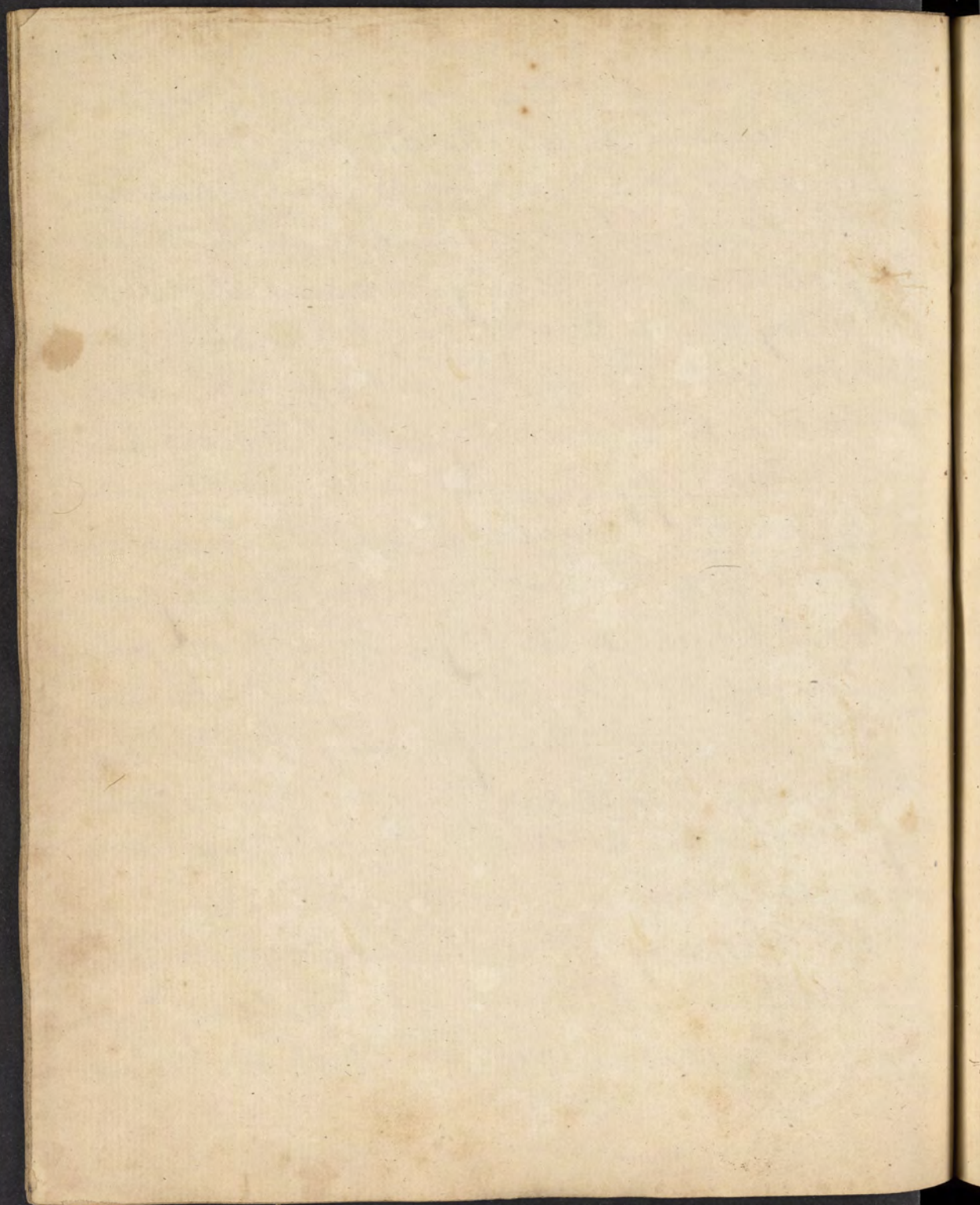


Swelling, and it is a long while before the joint resumes its functions. —

I consider this accident as worse, than a fracture & for this reason, that in the latter the part very unwillingly remains at rest, till every thing has healed, but in the former "he says that it is nothing but a sprain", and soon thinks himself capable of moving. —

The best application in the first instance is cold water poured in a small stream on the part for at least an hour, and repeated several times in the day — plasters dipped in vinegar & water should be put to the joint, but in the use of these applications in females we should remember the state of their monthly discharge, as cold to the feet might induce suppression. —

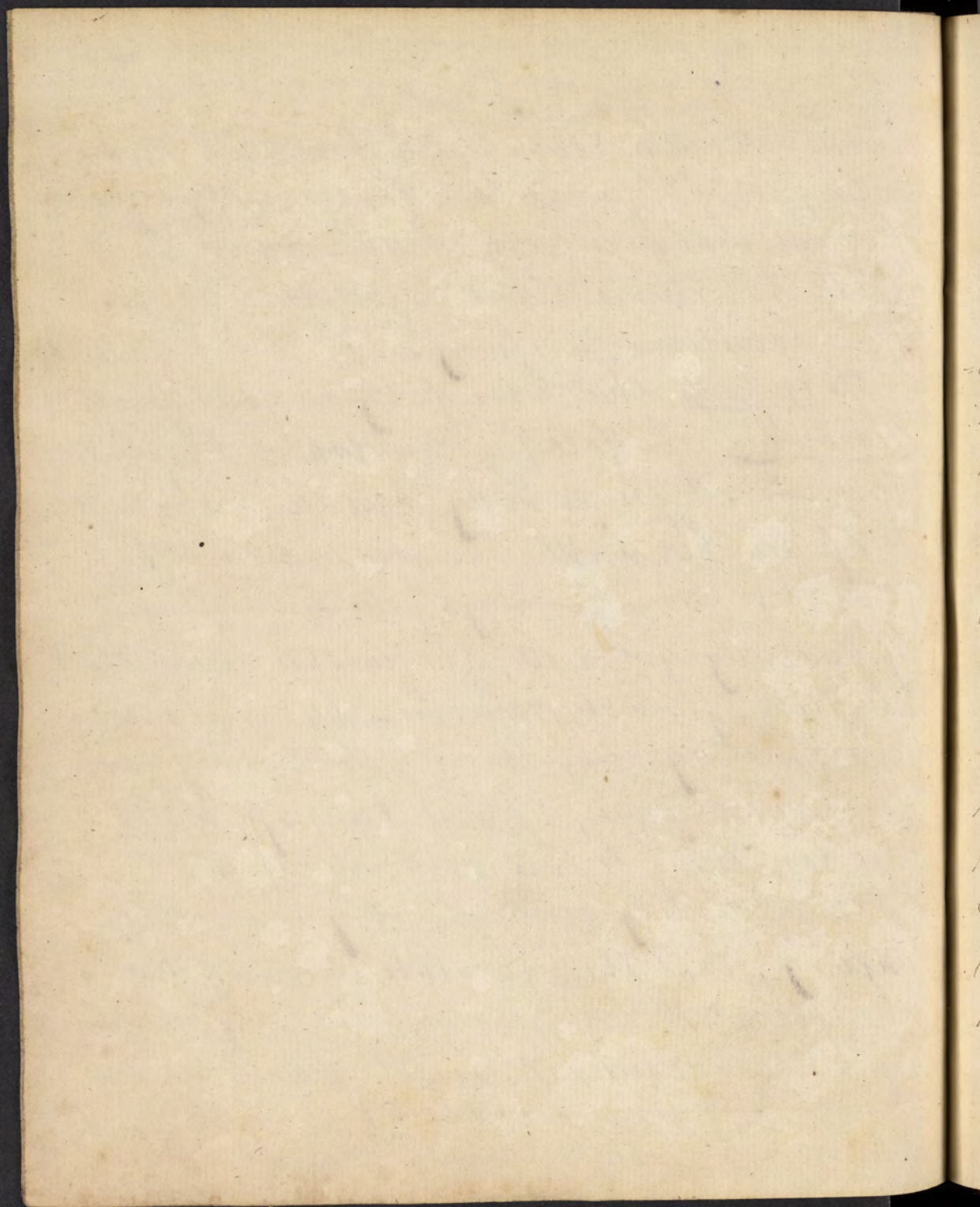
If the injury is in the lower extremities the part is to be put to bed & kept at perfect rest, this is to be cont. for a considerable time



If neglected the joint would be
 weeks, Months, & even years, sometimes termi-
 nating in suppuration & consequently a pro-
 fuse discharge occurs, under which the
 part sometimes sinks, rendering amputa-
 tion sometimes necessary.

To impress this more fully on your mind
 remember the following case which I have
 seen. — A young Lady had the misfortune
 to sprain her ankle, she was ordered to keep
 it at rest for a few days, she did so, and it
 apparently got well, she walked about, the
 swelling, pain &c returned — but were again
 dissipated by rest, this course was repeated
 for several times, at last I was applied to
 for something to this obstinate case.

I immediately explained my views of the
 case, that the ligaments were in a state
 of inflamⁿ. & that rest was absolutely neces-
 sary for a considerable length of time with



100

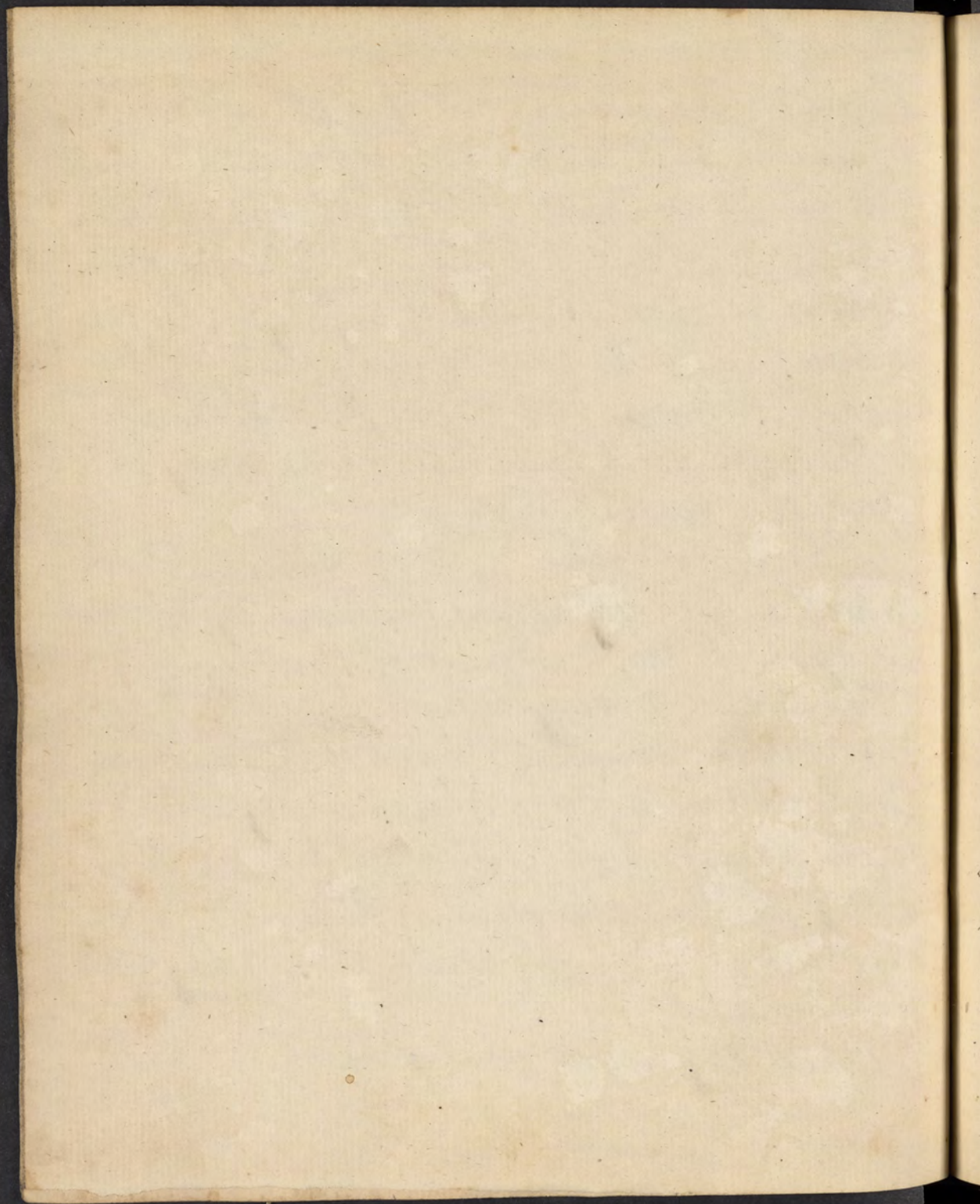
the use of evacuants - but that the injurious
treatment that had been adopted had perhaps
rendered it impossible to prevent suppuration.

I however put her to bed - employed general
Glopiel evacuations - but to no purpose, suppu-
ration ensued, the Astragalus, scelus & tibiae
became carious. - Her Health sunk - she refused
to have the Limb amputated & consequently died,
died of a Sprained Ankle.

I have seen other cases of a similar nature,
which sufficiently evince the propriety of strict
attention to the treatment of Sprains.

The Wrist is very often sprained & the patient
applies for something to rub it - This will
be of no service, you should apply a splint
to the Arm which should remain on for
3 or 4 weeks, this will be sufficient, but
without it nothing else can be of any great
service.

I shall say a few words on the subject

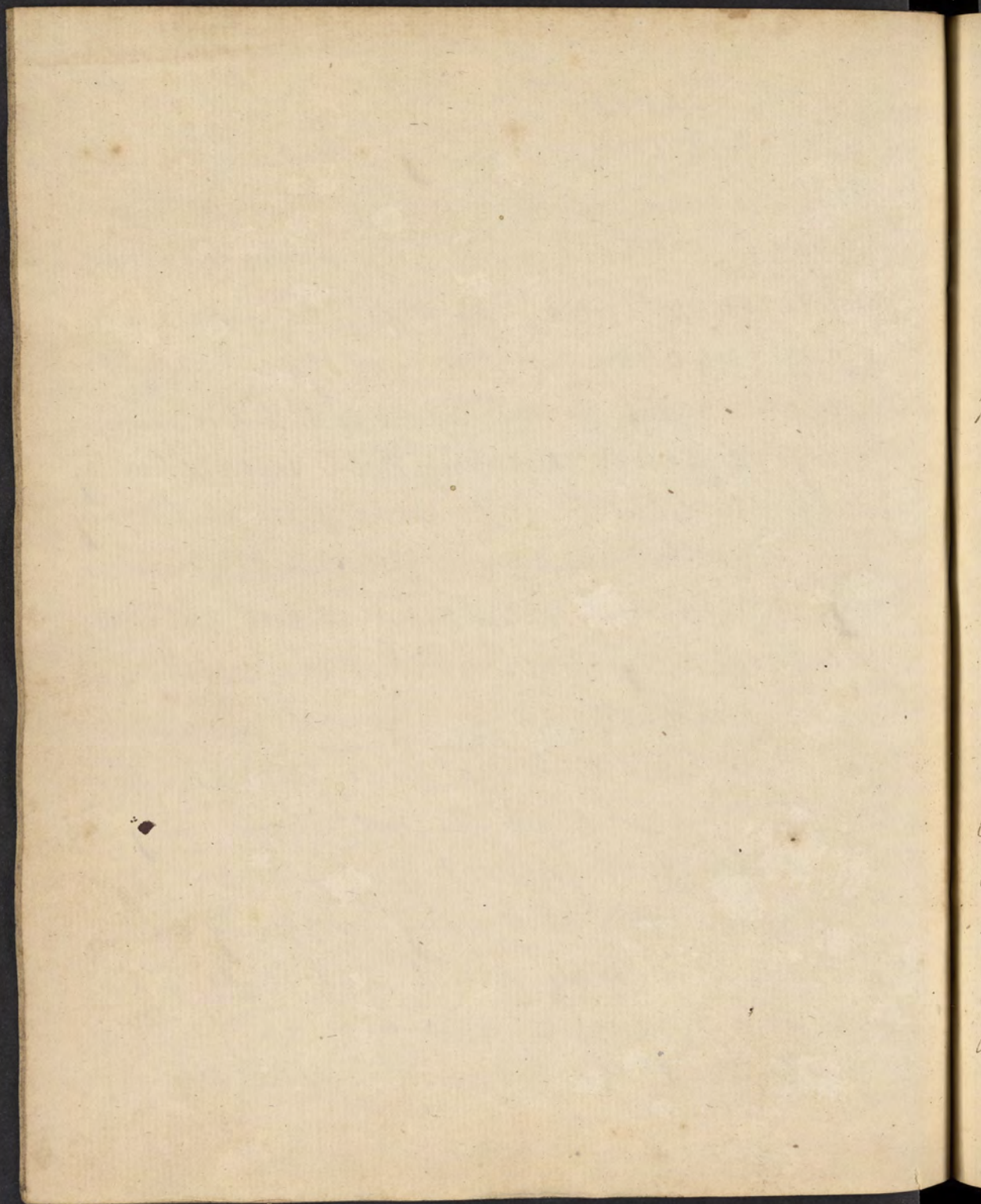


I have mention'd already, that the acceding muscle is sometimes so contused that it cannot be exerted. I have often been consulted, under these circumstances, the part. Considering the bone luxated if however you can move the joint in all directions it is not luxated.

The loss of power is owing to the severe blow by which the muscle is in some measure paralyzed. As to the treatment little can be done, time only is required. You should direct the part to be frequently moved & that the part. himself should make an exertion to use it.

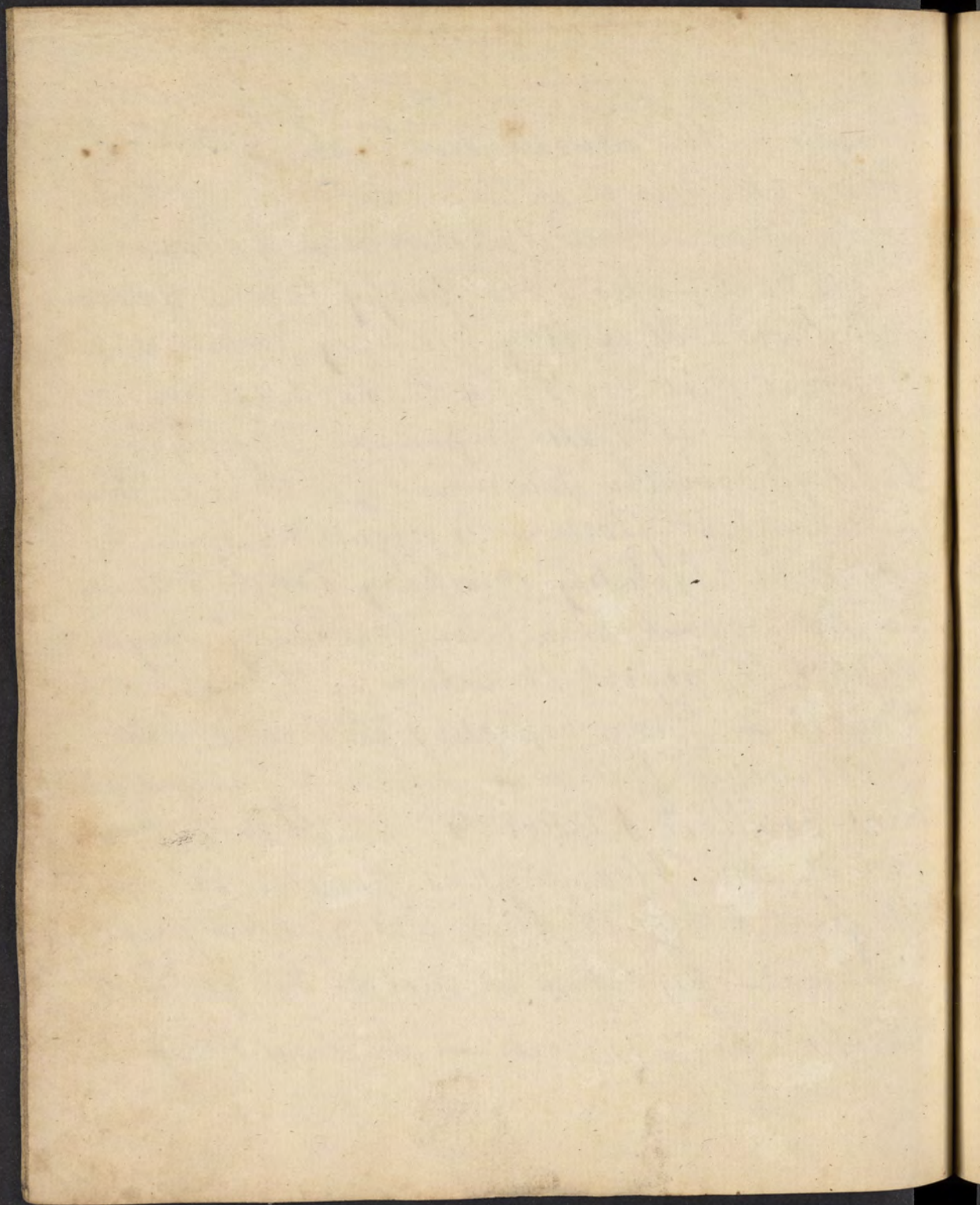
But you will be call'd in to prescribe something. In such cases do not direct any plaster - as this will prevent the part. using the muscle which is very necessary, but whatever you may direct - let it be in the form of a liniment.

Rupture of the fibres of a muscle from



Some sudden irregular action every now & then occurs - This usually seen in the Sarum.
 I have also seen it in the brs. In
 the Deltoid - there is always some discolouration
 at the part - also a soft pulpy feel, at first some
 depression - It is only necessary to keep the
 parts at rest for 3 or 4 weeks, till union is
 completed - it is also important to apply a
 bandage over the muscle - If in the lower limb
 a recumbent posture is requisite. —

If it be absolutely necessary for the patient
 to move about then some machinery may be
 applied to prevent the action of the injured
 muscle - From neglecting these cases bad
 consequences follow - I knew a patient who
 was confined 12 months - At the end of ~~of~~
 which time I found great tumefaction of
 the part & that the limb was useless - I applied
 a splint - kept him at rest in bed for 4 or 5
 weeks & he was well - In cases of rupt^d



103

Tendo Achillis, Splint is to be applied and
the part kept still. —

Lect: 33^a.

Injuries of the Head.

The Scalp is liable to different kinds
of wounds formerly mentioned — first —

CONUSION

When the scalp receives severe blows, you
always find a soft & flabby swelling; there is
nothing like the resistance of bone. This gives
to an inexperienced person the idea that the
bone is broken & beaten down. —

Influenced by this, it is sometimes customary
to cut down to examine the bone, I have known
this to be done, & the bone found to be unhurt
On this account you must never cut down
to examine the bone, unless you have symptoms

ret. vll.

104

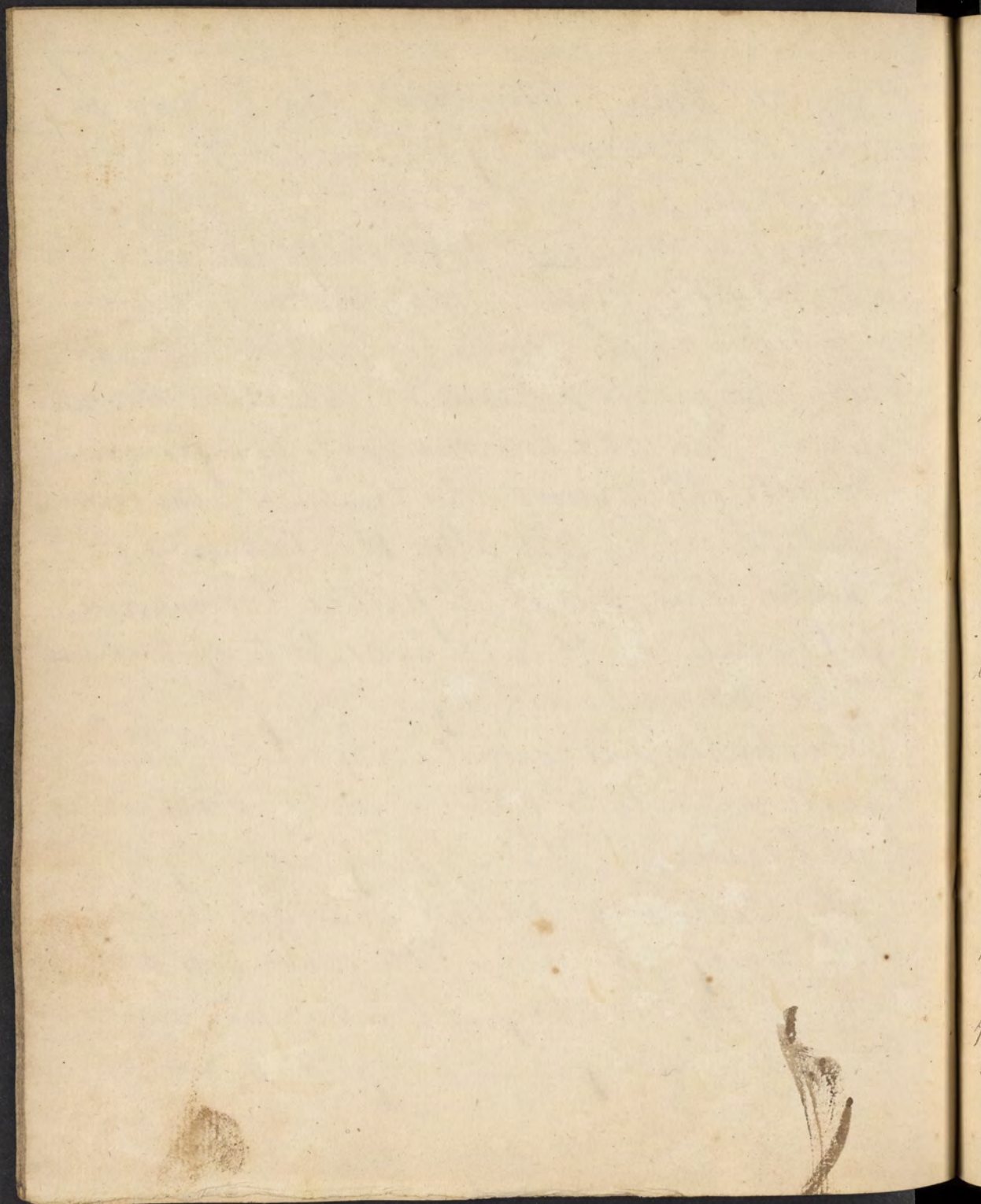
of injured brain. Often when this incision is made, it is followed by extensive inflamⁿ & Caries of the bone.

In Cases of Contusion to the Scalp the Hair sh^d be removed — Cloths wrung out of cold water or vinegar & water are to be applied to the part. Every thing is to be avoided which will excite inflamⁿ. Rest and low diet are to be enjoined.

If notwithstanding this treatment, the blood is not absorbed, even after 10 or 15 days, & it remains fluid, also if the patient becomes rest-
less & impatient; It will be right to open it.

This should be done by a small puncture & after the blood is evacuated the lips of the puncture, are to be approximated with adhesive plaster, so that it may unite by the first intention — In this manner the sides of the cavity also unite & the whole gets well.

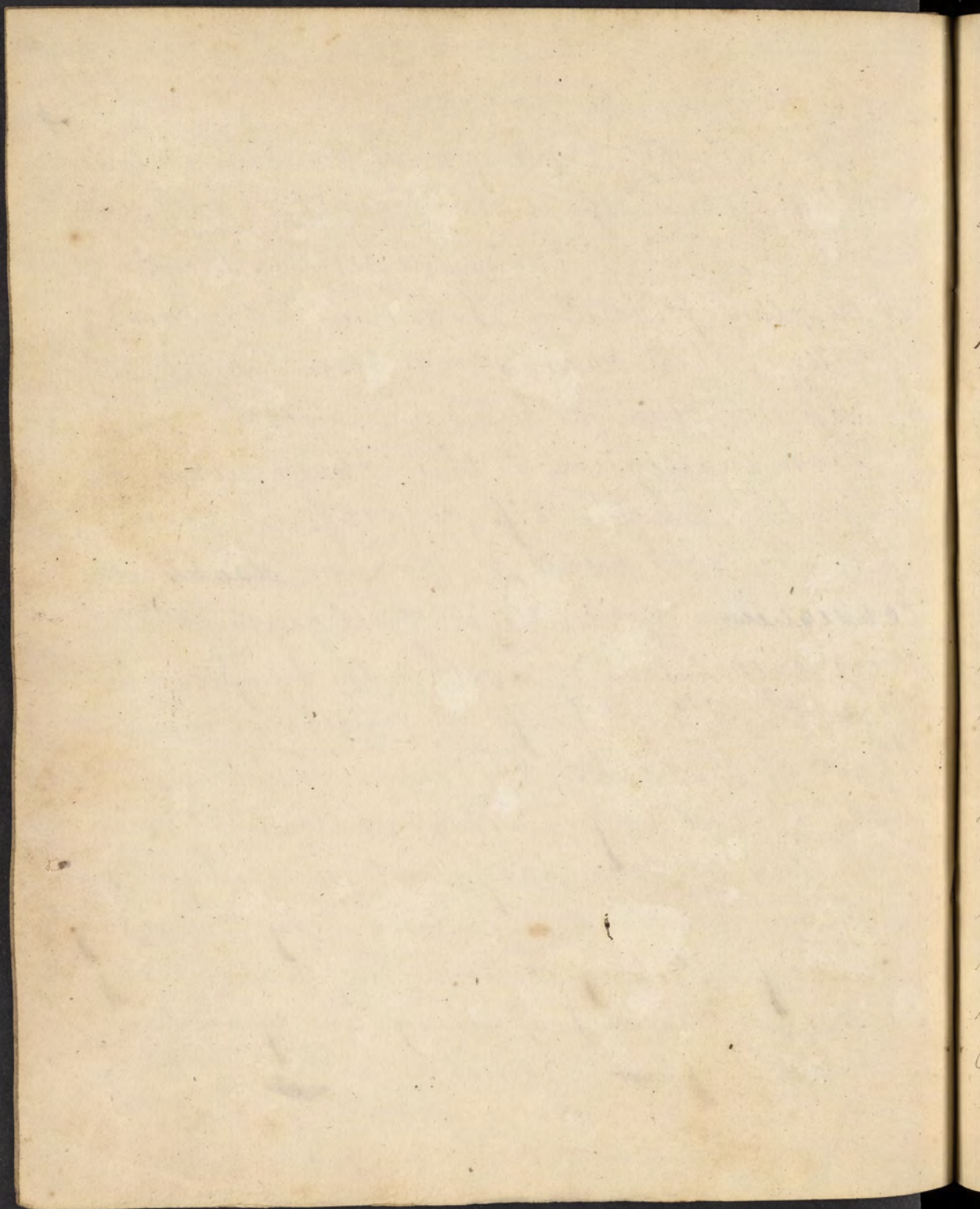
If on the contrary a free incision is made the whole cavity will suppurate & often



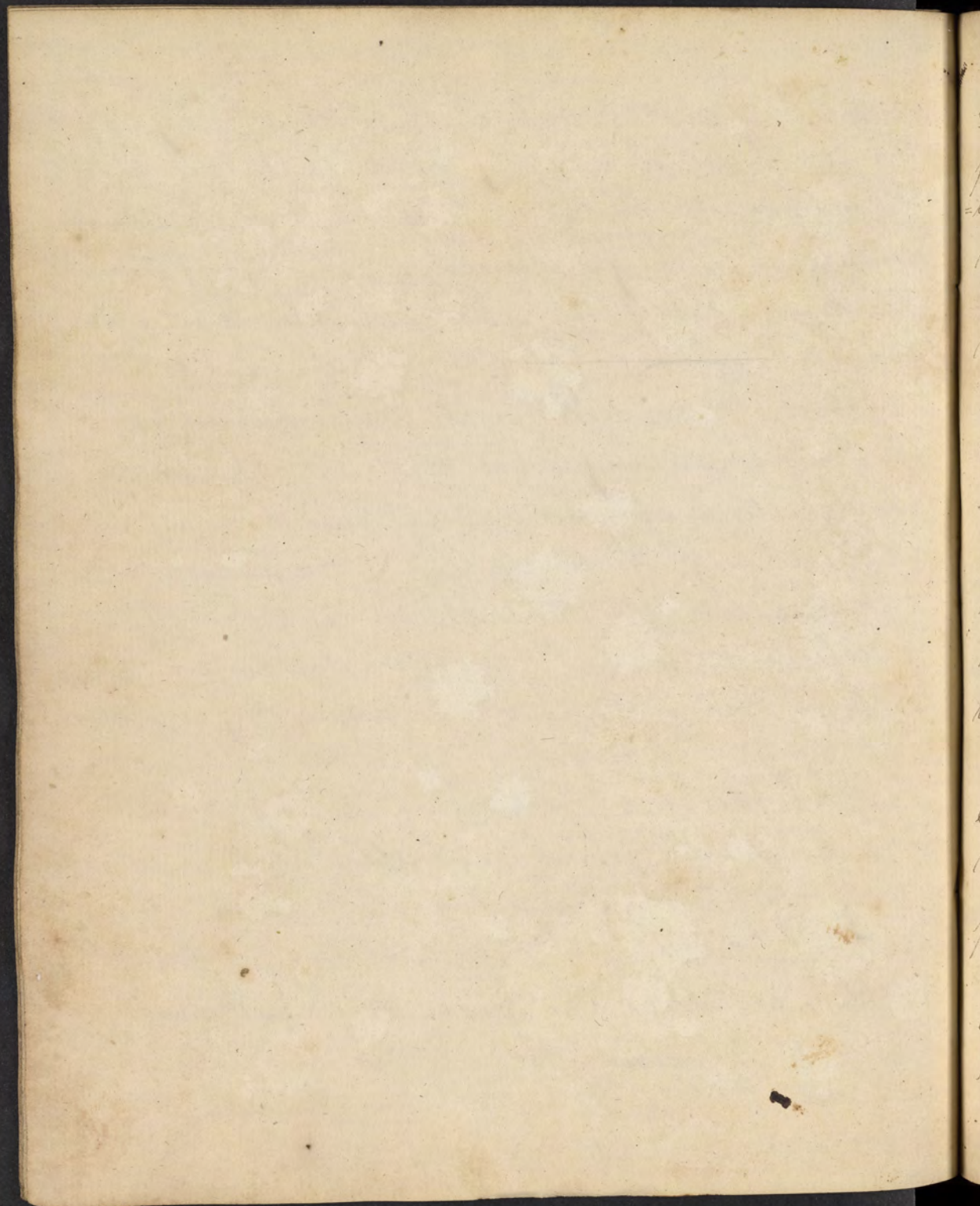
caris will be the consequence.

In this way Contusion of the scalp is to be treated; the scalp is also subject to different kinds of wounds, & demands similar treatment as in other parts. — Take care not to bring the edges of the wound into close contact, either by adhesive Staps or Sutures.

From inattention to this, I have seen a case where the whole scalp was inflam^d accomp^d with Fever, headach & delirium, ~~about~~ the consequence of this fever & delirium doubts were entertained, whether the symptoms arose from the inflam^d scalp or whether from inflam^d of the brain, & of course whether the bone should be perforated or not. It was a matter of some surprise to me why this question should be agitated, very fortunately for the part, they determined (without any particular reason) to delay the operation another day. — Now it is a case which



you should remember, that it is very rare
 for two sides of a Cavity to be inflamed at the
same time — If the Villous Coat of the Stomach
 is inflam^d, the peritonial is not, & so of other
 parts — Therefore whenever there is a violent
 inflamⁿ of the Stomach is so true, that when
 inflamⁿ of the Skull Mat: comes on in^{fr} of
 the Scalp — or any part of its Subsides — even
 the secretion of pus which has commencing,
 immediately disappears. — This agrees with
 our practice in all inflamⁿ of interior parts —
 to relieve them one of our most effectual means
 is the inducing inflamⁿ exteriorly by a blister
 In every case of inflamⁿ of the Scalp is to be treated
 by V. S. low diet leeches & by the application
 of a blister — which will often stop it when
 early applied — Therefore whenever there
 is violent inflamⁿ of the Scalp it is proof
 sufficient that the brain or membranes
 are not inflamed — Sometimes in —

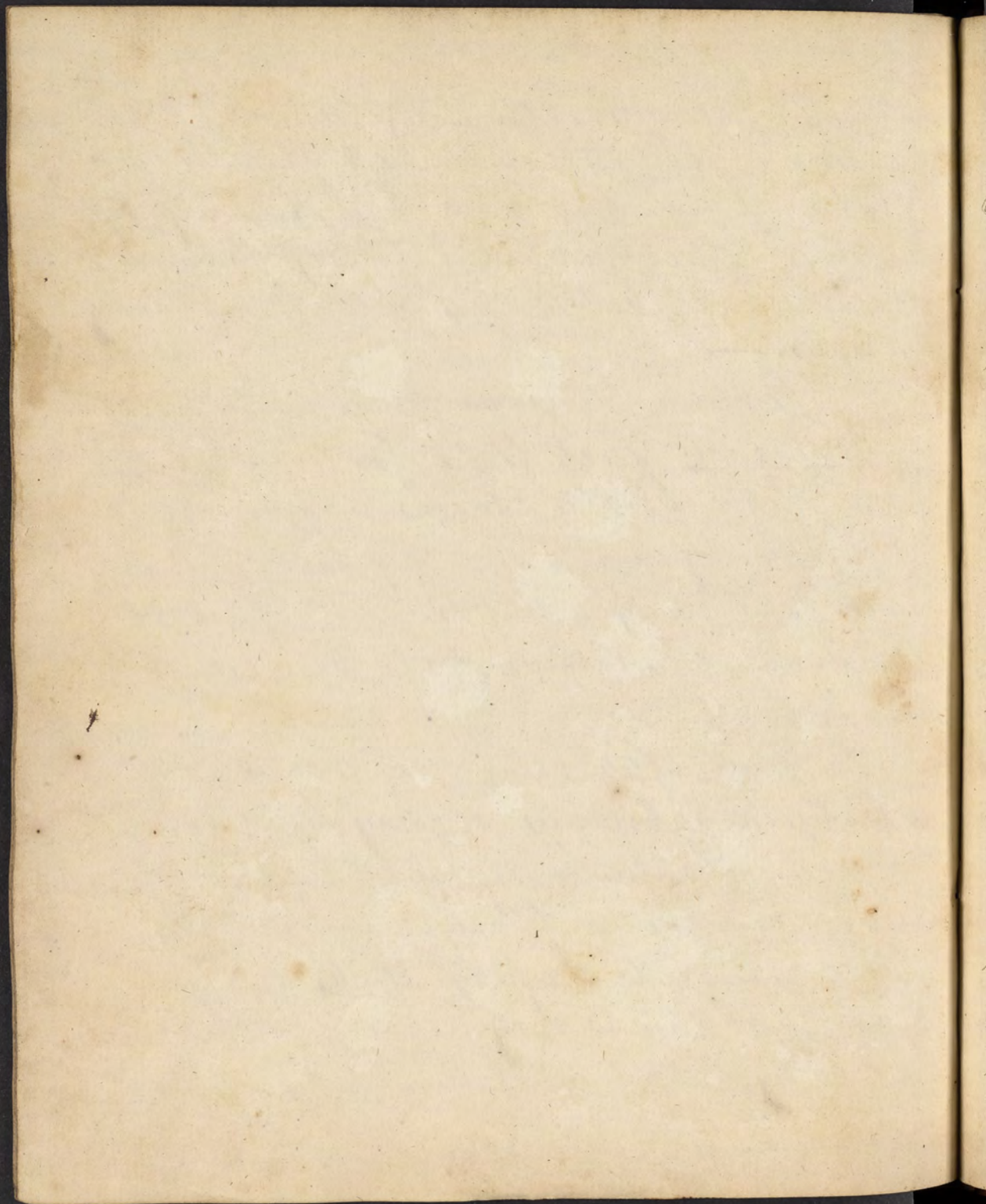


Contused Wounds of the Scalp, there is a large portion of the integuments torn from the Cranium. I have seen near half the Scalp separated in this manner & the flap hanging over the ear, but the size of the flap are very various. —

The older Surgeons were in the habit of Cutting off such flaps, for fear that the bone might become carious underneath it, if it were replaced & that they could not in such cases easily get at the parts of the bone. — Nothing could be worse than this practice. —

The flap after being well washed; all extraneous substances of every kind being removed, should be replaced & kept in its place by adhesive plaster. —

It is usual to employ sticks in such cases; but this is very wrong; as the scalp is torn by force — if Sutures are employed

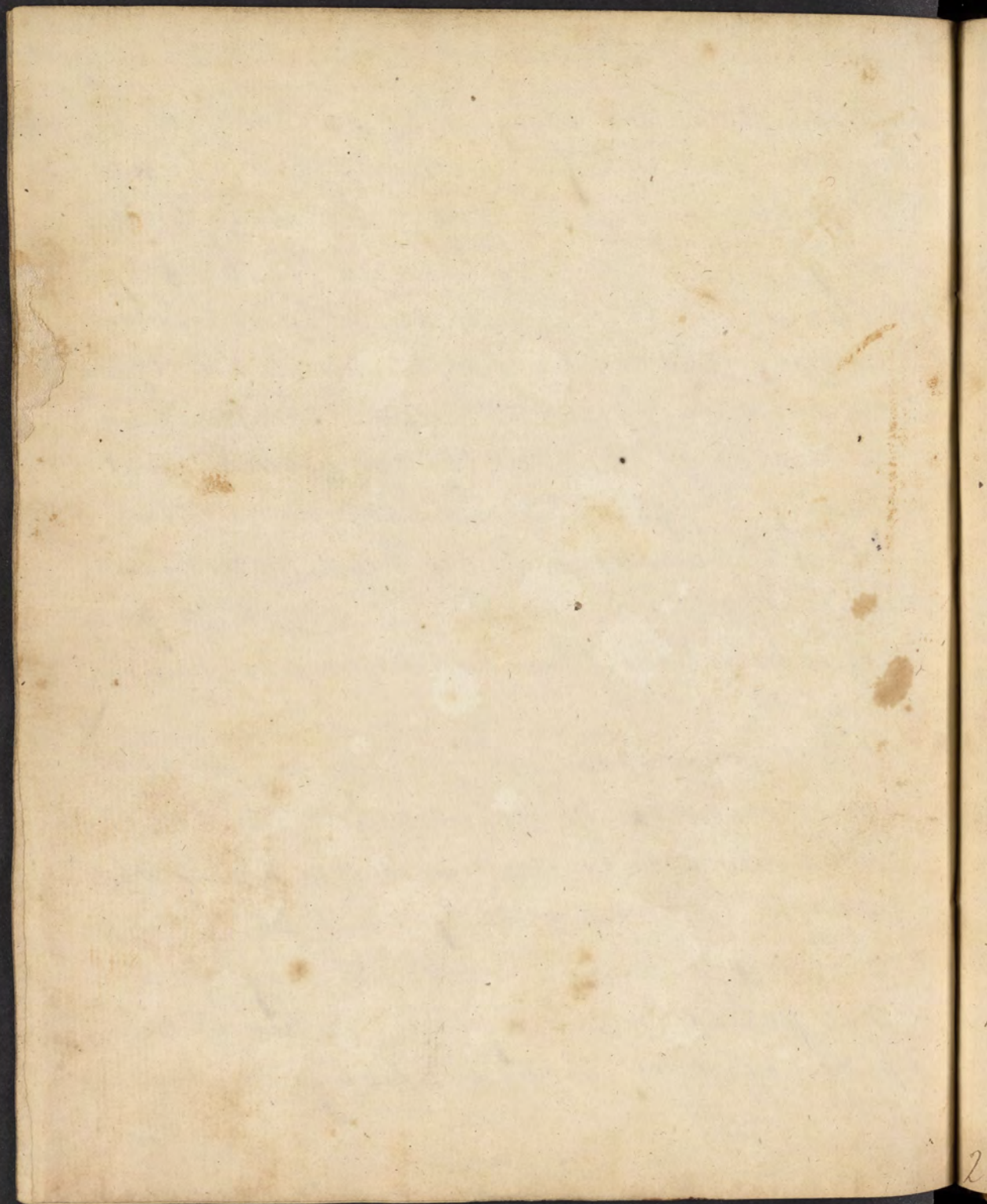


Inflamⁿ will put every thing on the stretch,
 there will be great pain, delirium, & after
Mortification. — The edges should be brought
 nearly together; so as to allow for the escape
 of fluids & to suffer the parts to swell without
 stretching the whole, Sometimes when drawn
 close over the hard Cranium — the swelling
 has been so great, that the Circulation was
 actually stopped and the part mortified —

If Suppuration, takes place underneath,
 openings must be made to evacuate the pus,
 or if exfoliations, then cut down and remove
 them —

It is proper however for me to make
 some remarks on the death of the bone.

When the bone is dead — it has a dull white
 colour — Sometimes only one table is dead
 sometimes both — The wound ^{remains} ~~may~~ open,
 till exfoliation takes place; when it can
 be removed it should always be done

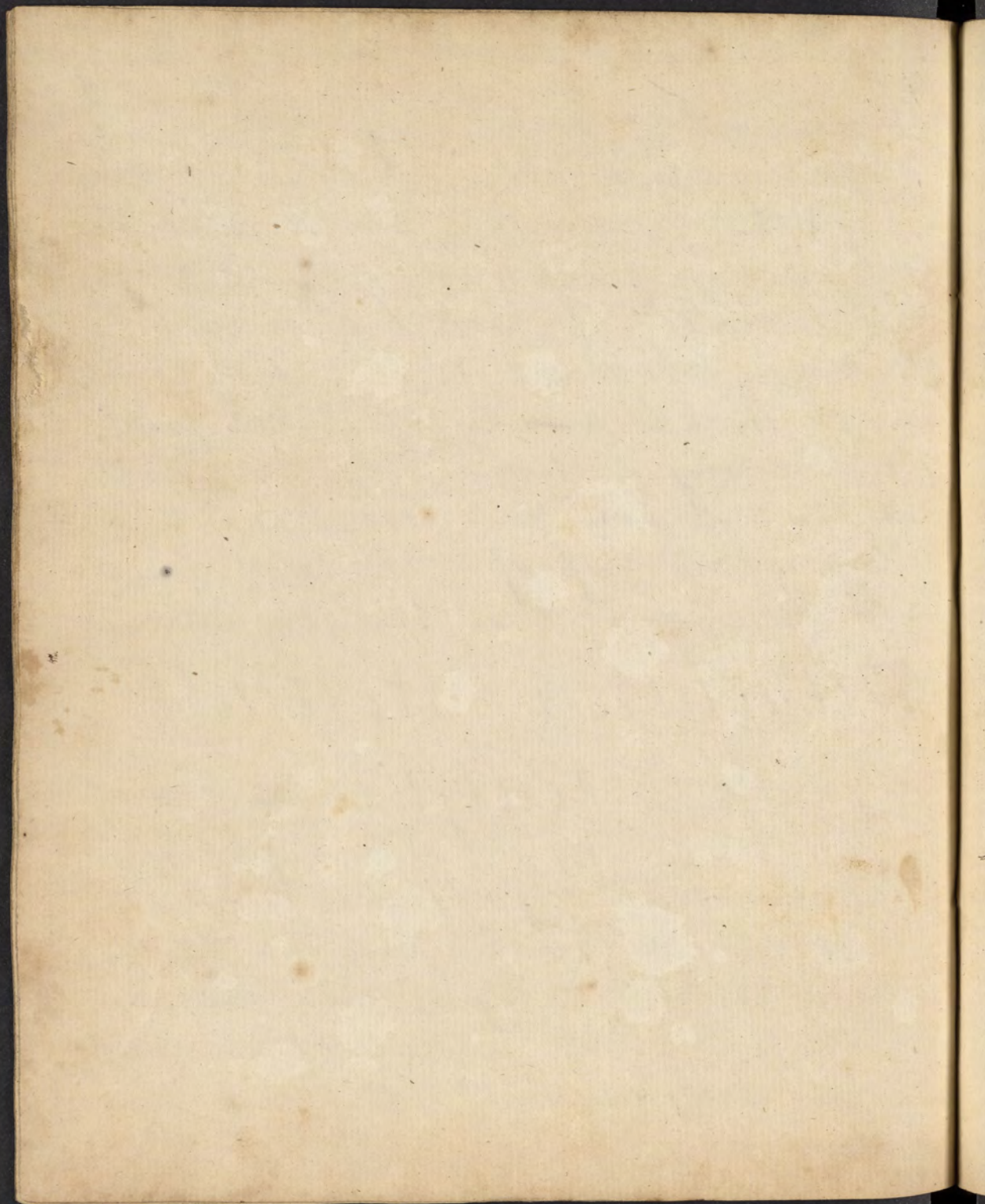


As then the Bone will heal up & otherwise
 the dead portion would become tighter every
 day & the Wound discharge a thin sanious
 Matter - Inexperienced Surgeons are very
 apt, to wait for the Bone to become loose,
 but you should extract, it, as soon as it is
 in the least loose - and then you will
 have a simple Ulcer - but if you do not
 do this - the Bone will become mortified
 the Bone will keep open & the fatal disagree-
 able discharge continue for a long time -

Punctured Wounds

Of the Scalp. —

are usually attended with violent
 inflamⁿ of the erysipelatous kind exten-
 -ding over the face, in such cases the best
 plan would be to lay open the wound,
 if the part object - a small blister will
 prove very useful. Other evacuations

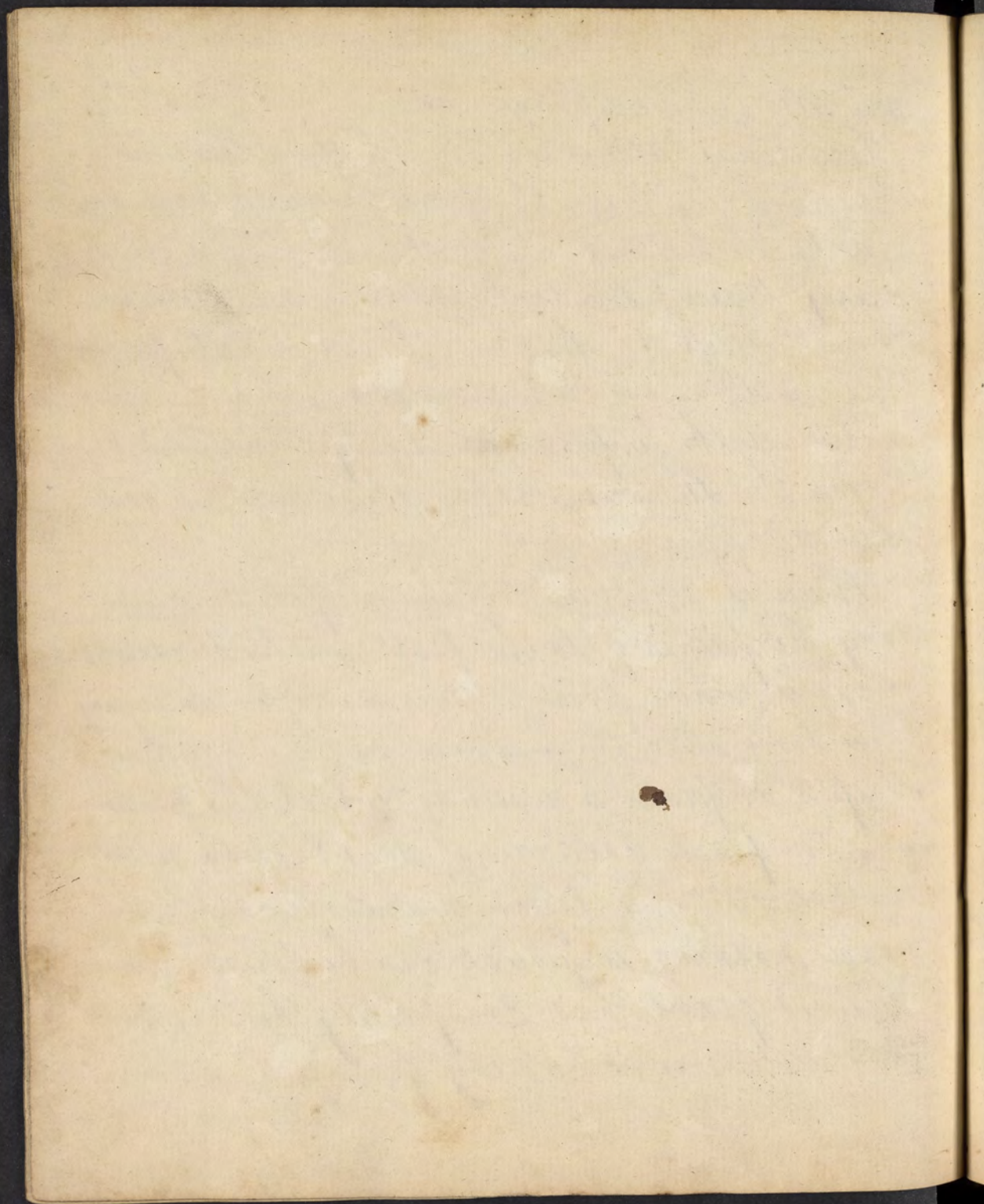


are also to be employed.

Sometimes after a blow on the Cranium dividing the Skin, the parts having been dryed & sewed with Sutures, the patient will have a dull heavy pain; over the Cranium - he will become restless & impatient, Fever will supervene & even delirium in some Cases.

Now all the unpleasant symptoms arise from the Sutures, when these are cut out they disappear.

There is another Condition of the Cranium very perplexing to the patient and his surgeon. This is where pain supervenes upon an injury some time after the accident as from contused Scalp - or from a wound which has cicatrized, the pain occurring days & weeks after the accident. Upon examination of the Head nothing unusual can be found, the injured part has completely healed, but it continues to be very painful and

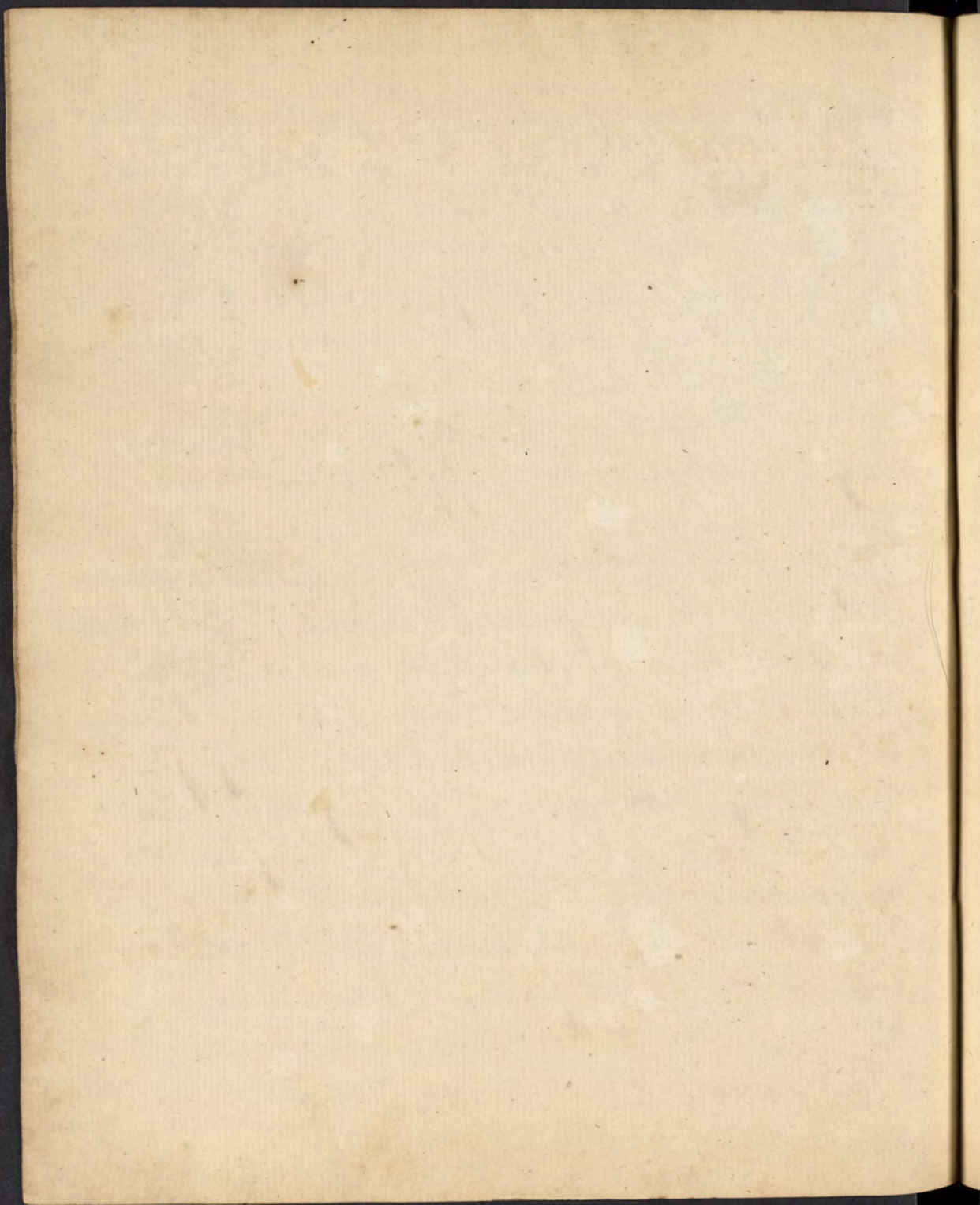


interferes very much with the digestive process. — The first case of this kind I was called to see by Dr. Rush. —

A Lady had received a contusion on the Scalp — She had some pain at the time, but nothing very unusual occurred; but the pain after some time began to increase, she lost her appetite, her sleep, she became very uncomfortable, & applied to Dr. Rush who tried every thing she could think of.

Upon examination I found nothing unnatural in the Scalp whatever. To see whether the bone was affected or whether the division of the Nerves would be of service I made an incision down to the bone; My patient perfectly recovered in a very short time.

The Second Case was also a Lady who had received a blow in the head from which she recovered, but soon after hurt herself on the same part — I recommenced the incision she recovered & remained well for one month, when it again returned;



112

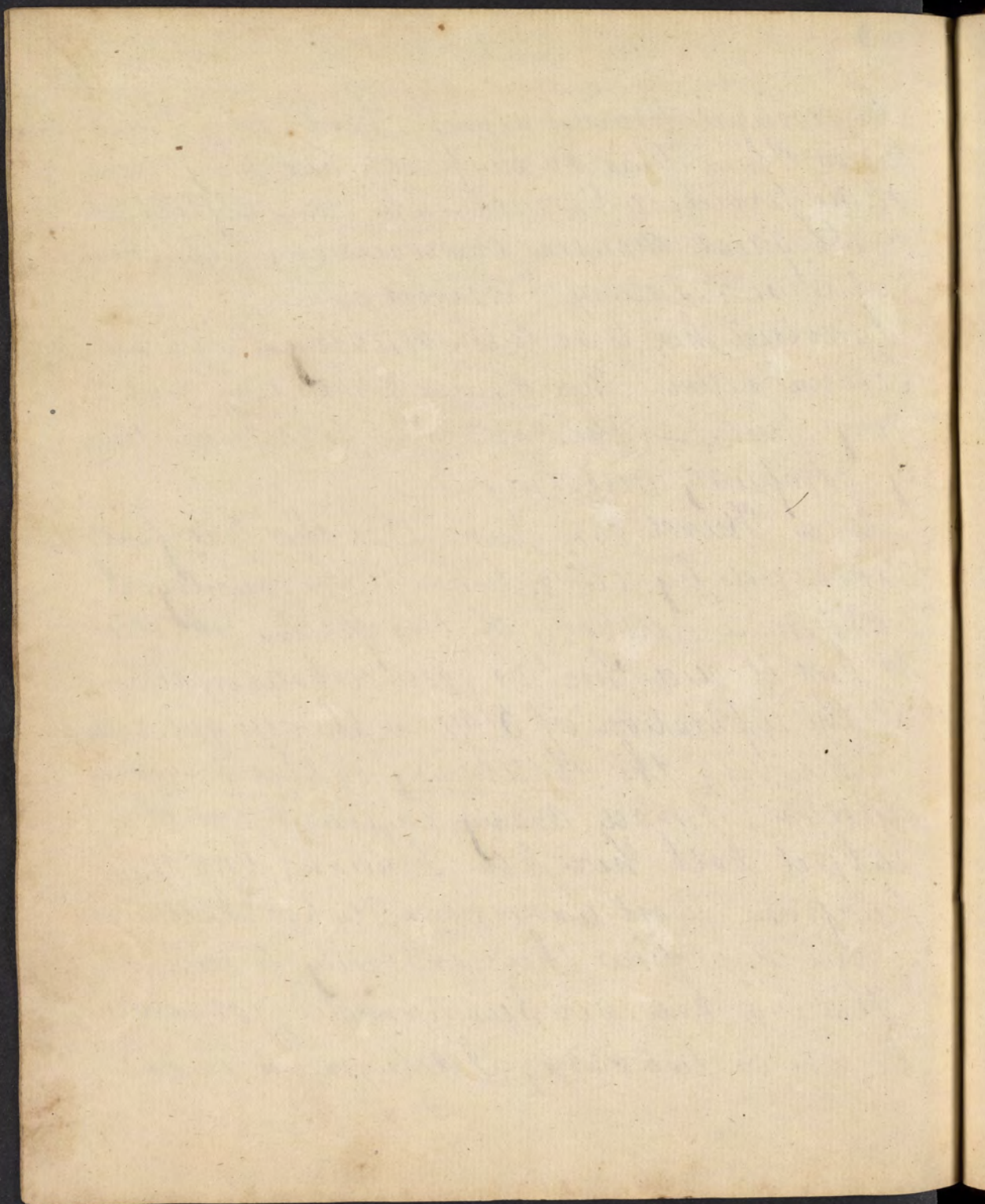
she recovered having almost healed up, I made two or three issues on the part, but they were of no service whatever - she was afflicted with great nausea indigestion, pain, convulsions, fainting & tremors -

I advised her to go to the Country - here she became better - her nausea & vomiting continued very freely - she continued to improve & finally completely recovered. -

In a third case being that this last part recovered by being taken to the Country, I advised a removal of this part - she did so but it did her no good whatever, although at the expiration of 5 years she also got well.

Perceiving the obstinancy of this singular affection, I made many inquiries on the subject both here & in London, but to no purpose, most understood what I alluded to but confessed their inability to cure it.

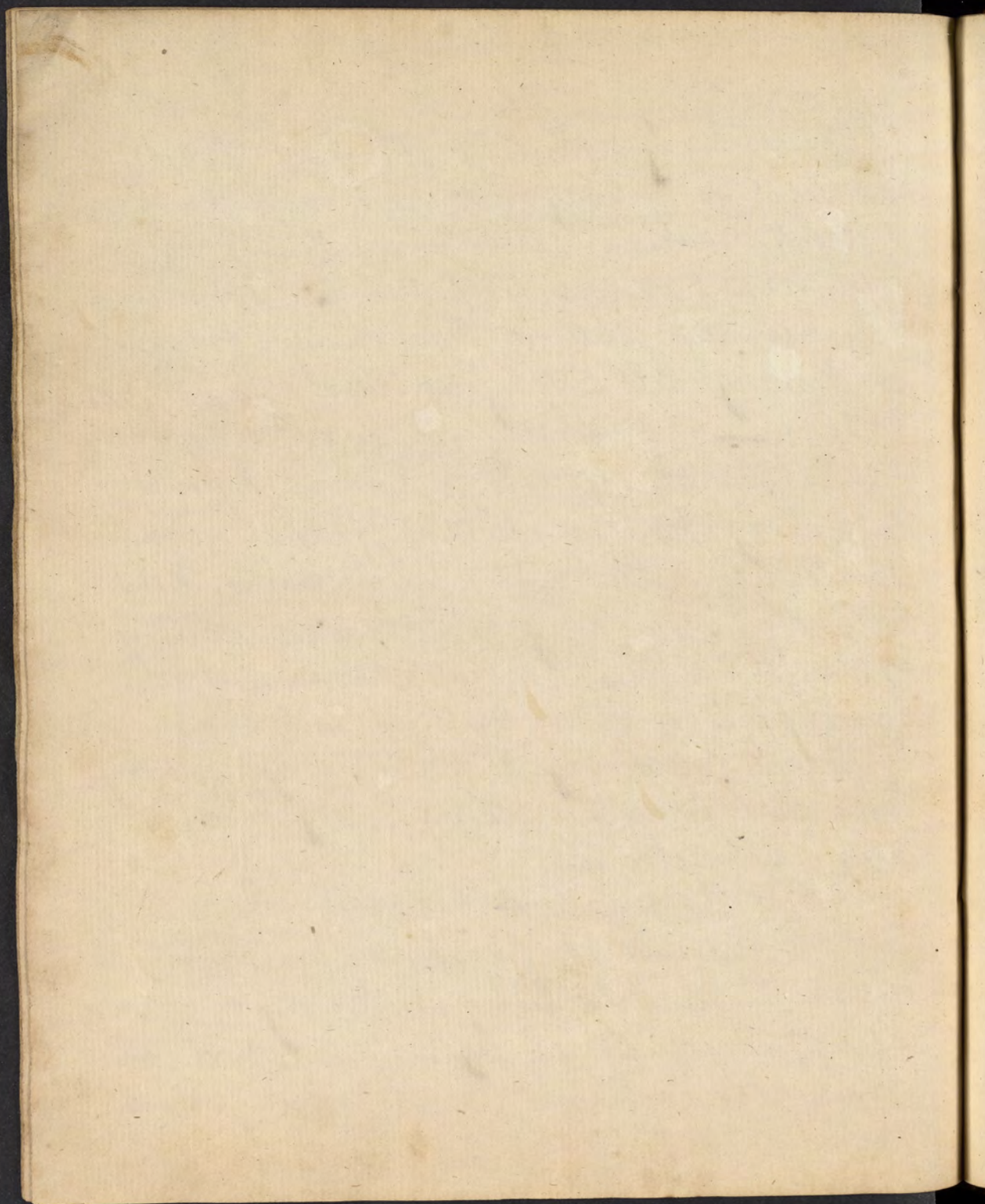
Having however seen vomiting of blood in one or two cases, I determined in the



next case to try emetics. —

I accordingly exhibited the Tart. Emet. & my patient completely recovered in the course of a week or two. I have tried it in several cases since & always with success. Sometimes however my patient would not continue the remedy till a complete cure was accomplished. — In that painful affection of the face called the tic doloureux & which I think to be a very similar affection to that above mentioned — I have also tried emetics, & in two cases they were very beneficial — I therefore recommend this for your trial, not that my experience has been such as to enable me to speak positively of the efficacy, but they have been more successful in my hands than any thing else. —

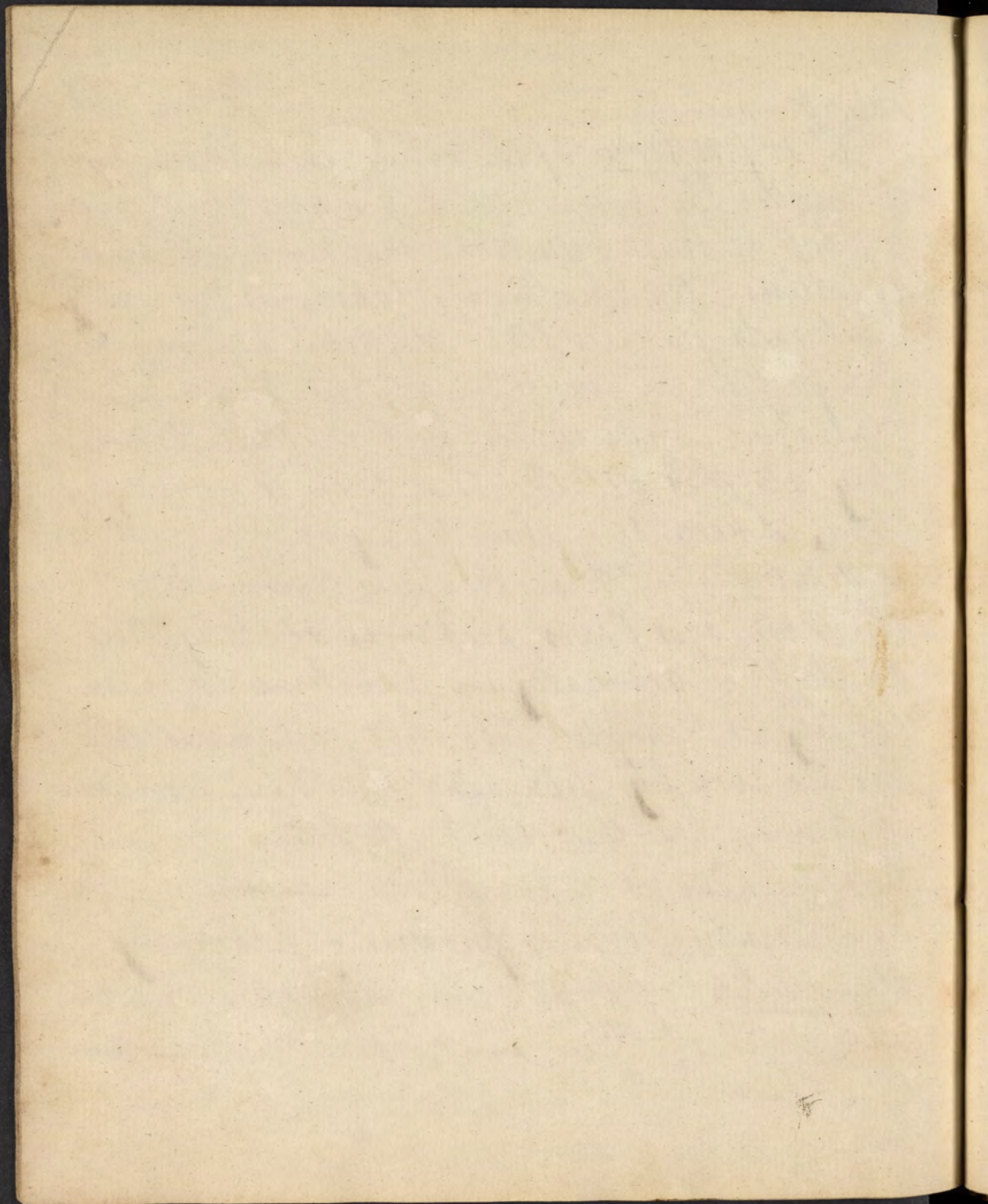
We have now to consider the injuries which interest the parts within the cranium. These parts are affected either by compression being produced or by a foundation being made for inflammation of the brain or its



Membranes.

Compression of the brain in a Slight degree is marked by quiescence when greater there is a loss of sense & motion, nausea & occasional vomiting, the breathing is laborious & generally stertorous pulse is slow, depressed & laboured. The pupils are sometimes dilated & sometimes contracted, you must not conclude because they are not dilated, that there is no compression; I have seen them fully as often contracted as dilated. — There is often hemorrhage from the nose, eyes & ears ecchymosis of the eyelids or the face generally. — Sometimes the insensibility is complete, so that he cannot be roused even by pinching the skin; sometimes it is only partial the part being roused by speaking in a loud tone. —

Compression is produced either by fracture of bone being depressed, or from effusion of fluids — Within the cranium



on in the substance of the brain.

Whenever, there is a fracture, you have always more or less ruptures of vessels, but this rupture often occurs when there is no fracture. — At first in these cases there will be no symptom whatever of compression; the patient will be perfectly sensible & will detail with minuteness the circumstances of the accident, when suddenly he will fall down with every symptom of compressed brain. —

I saw this very completely exemplified some years ago in a boy who was struck on the forehead; he complained of pain at the part but he was in every other respect perfectly well — I was sent for and found him relating with minuteness how he had been injured, while I was there he fell down insensible, the attendants thought him dying, and objected to my doing any thing —

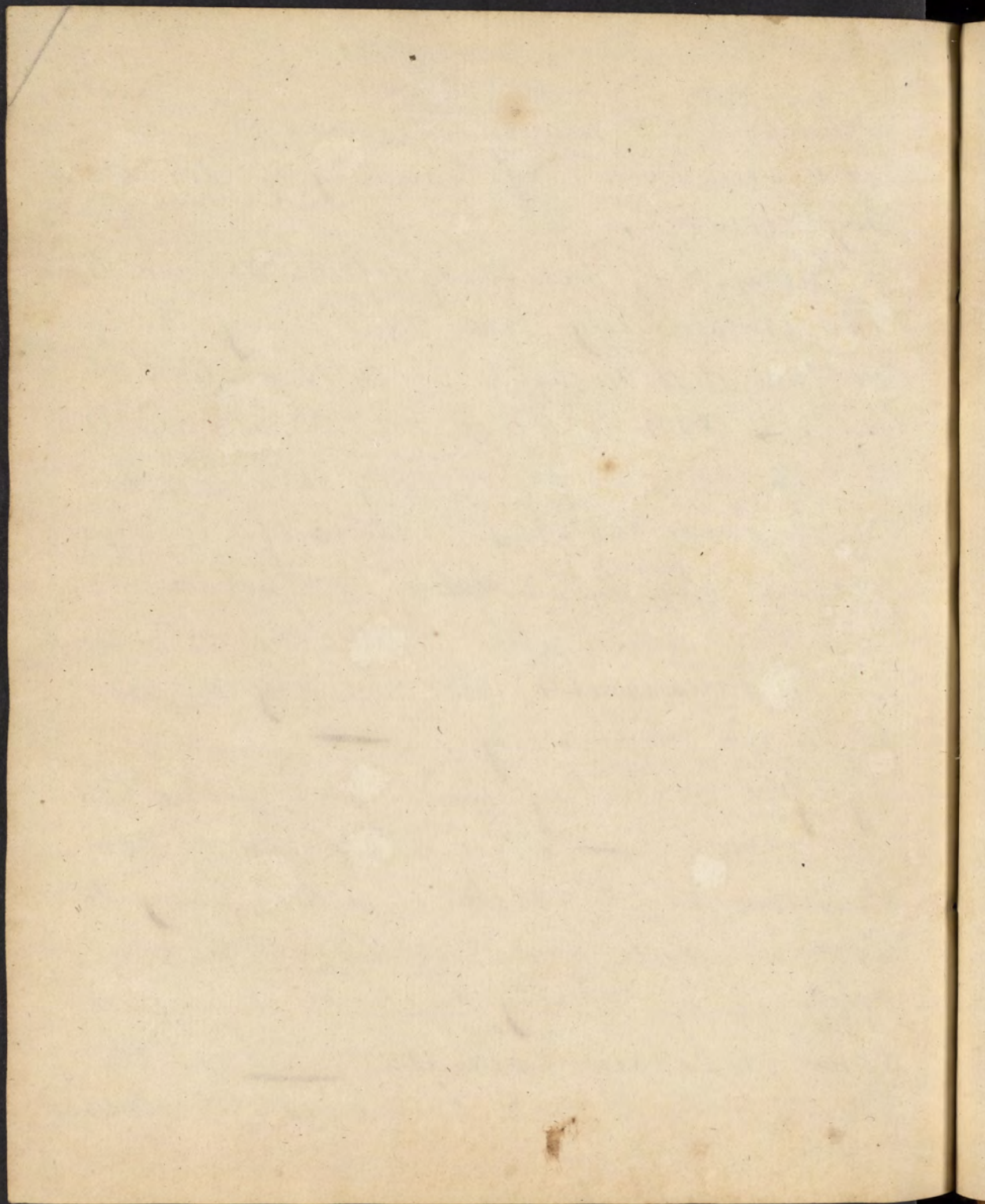
for the can

But I insisted upon perforating the bone, and evacuated a large quantity of blood & the Boy recovered. —

Therefore when Compression does not take place immediately, you must always remember that it is owing to an extravasation of fluid. — I am however next to inform you, that the bone will not only be cracked but also in some instances portions of it depressed without any symptoms of Compression —

In other cases, also, where there is no wound of the Integuments, nor even any marks of contusion on the Scalp. —

Symptoms of Compression from effused fluids will occur. — Now in all cases of Compression of the Brain it is necessary to Trepan — but you must never make a perforation merely to elevate depressed bone, or because there is a crack in the bone — there should be marks of Compression

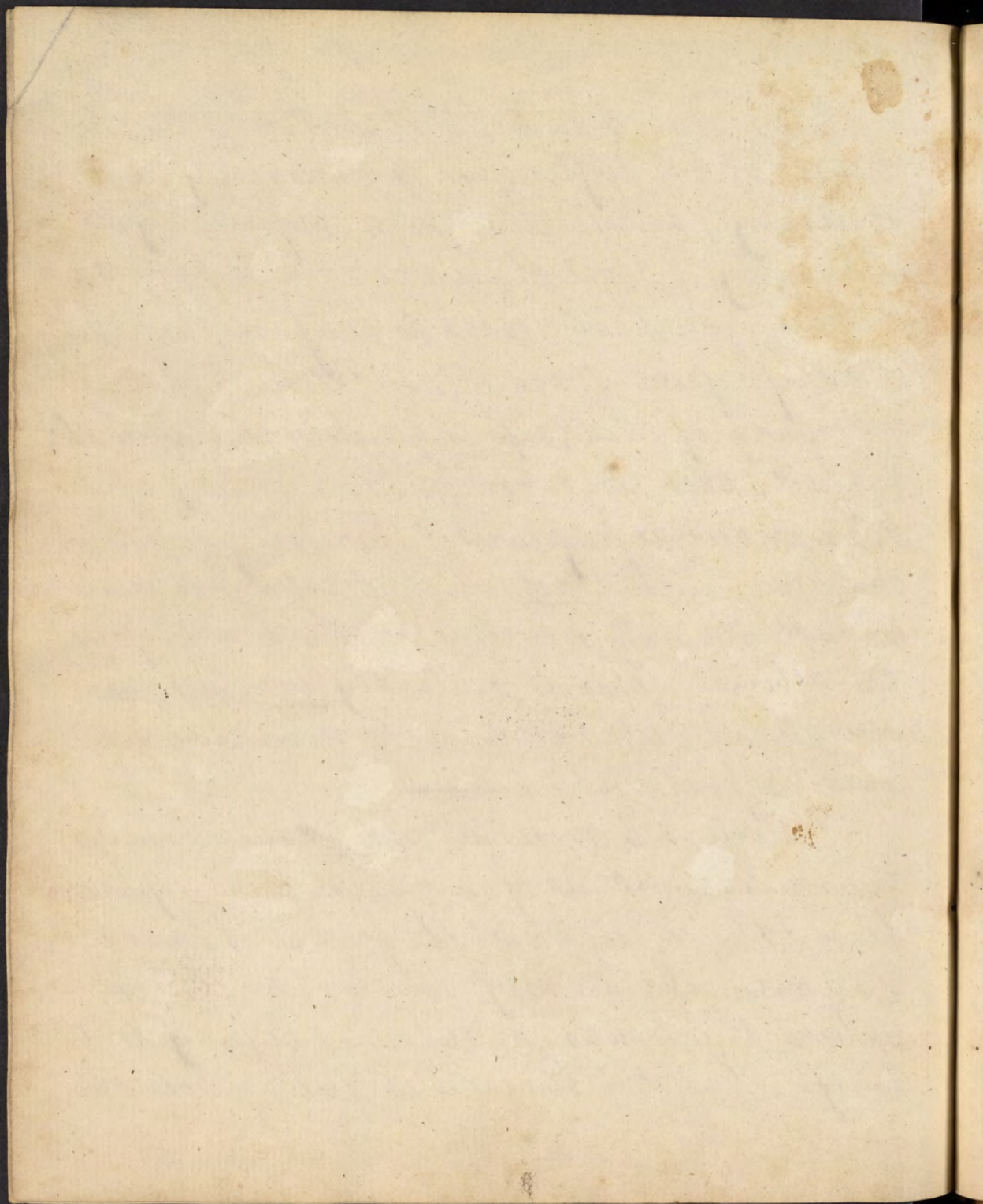


117

of the Brain I know, that Mr. Pate states the result of his experience to be directly the contrary, but in this, he is opposed by Mr. Abernethy & most of the modern Surgeons.

When you have reason to suppose that there is compression from effused blood, & there is no injury of the Scalp to guide you, you sh^d. suspect, that the large middle artery of the dura mater is ruptured & therefore perforate the bone in the tract of that vessel & if you do not find the effusion on one side perforate the other. — This is certainly an uncertain operation, but I conceive it would be your duty to perform it. —

There is a mistake you should always guard against, as you value your reputation & the welfare of the patient. — I have seen one case Dr. Lorry another, in which where there was no external injury to the Scalp, but the Surgeon is feeling over the



118

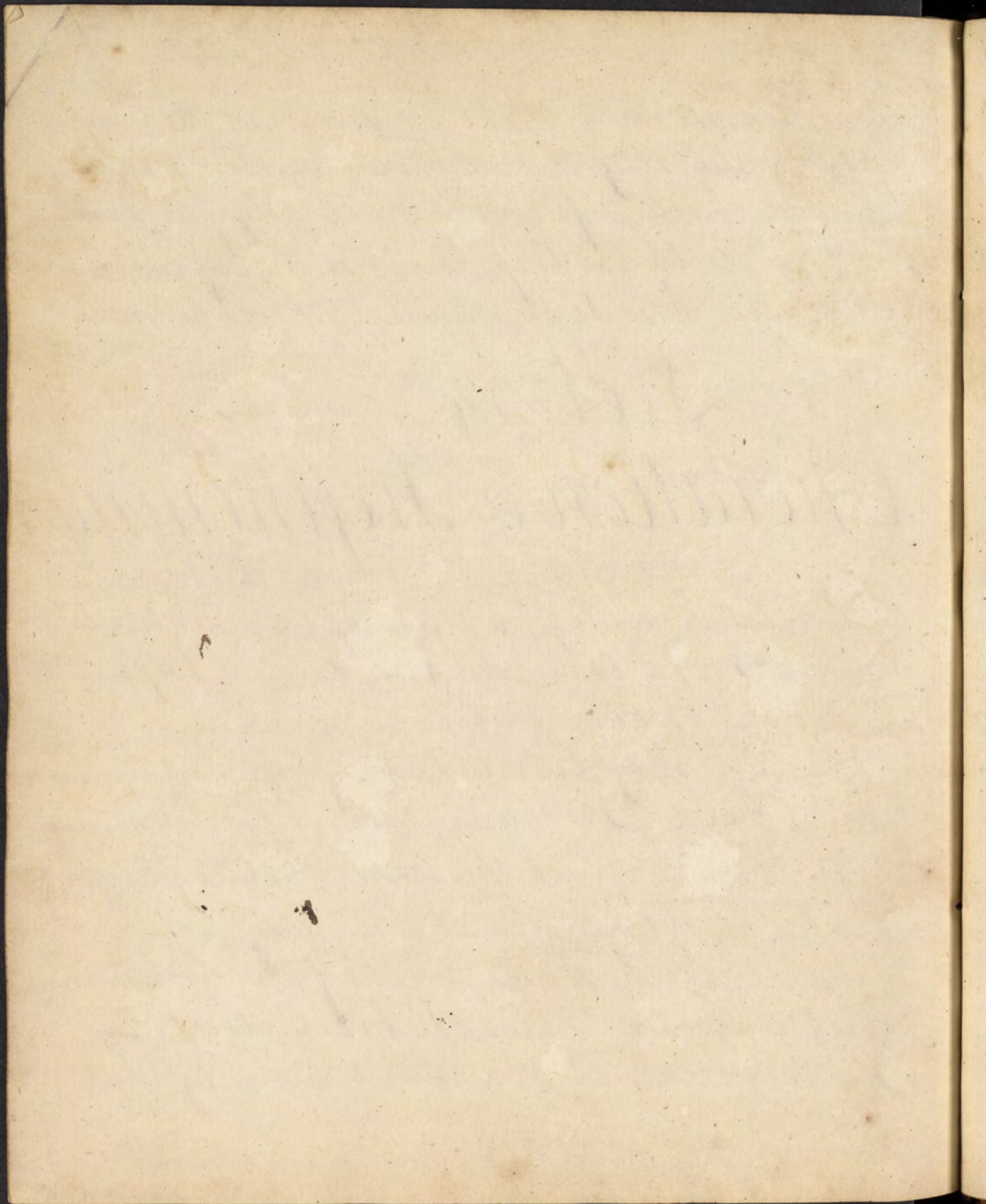
head perceived a slight unevenness of the bone, which naturally existed there, mistook it for fracture with depression & actually perforated the bone with the trephine. It is very difficult to conceive how such a mistake could be made

Sect. 34th

Operation of Trephining

The operation of Trephining consists in removing a piece of the Cranium by means of a circular saw, called a "Trephine" I prefer the Trephine which is cylindrical & has an edge only serrated - in preference to the conical one. In cutting through the integuments when there is much fracture of the bone you should be cautious, as it is a very possible thing, that the knife might pass between the fragments & enter the brain itself.

I do not advise you to cut timidly but

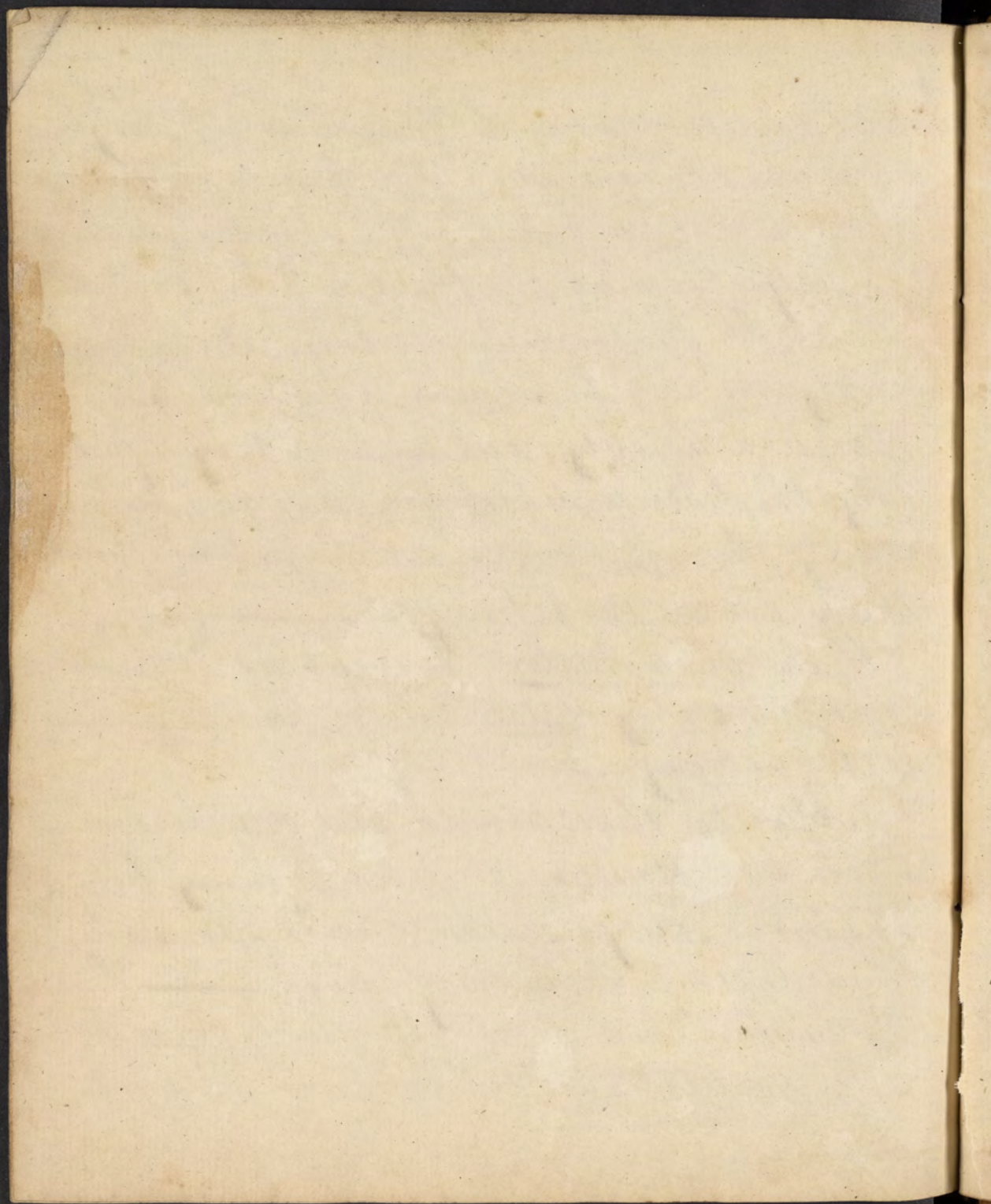


with caution, when the fragments are very numerous & comminuted, it is best to cut down upon the Sound Bone & pass a director under the Scalp covering the fracture & then divide it. — In perforating the bone, act also cautiously, do not be anxious to perform the operation quickly, but examine very repeatedly the depth to which you have gone & when nearly through — break out the point, as this is always the safest plan. —

If the Dura Mater be wounded, it is almost invariably fatal I never knew an instance to the contrary. —

After the operation the best dressing is a common poultice as it can be easily be applied & easily removed, and it allows any fluid to escape from the opening. —

Sometimes there is no effusion between the Dura Mater and the bone, but between



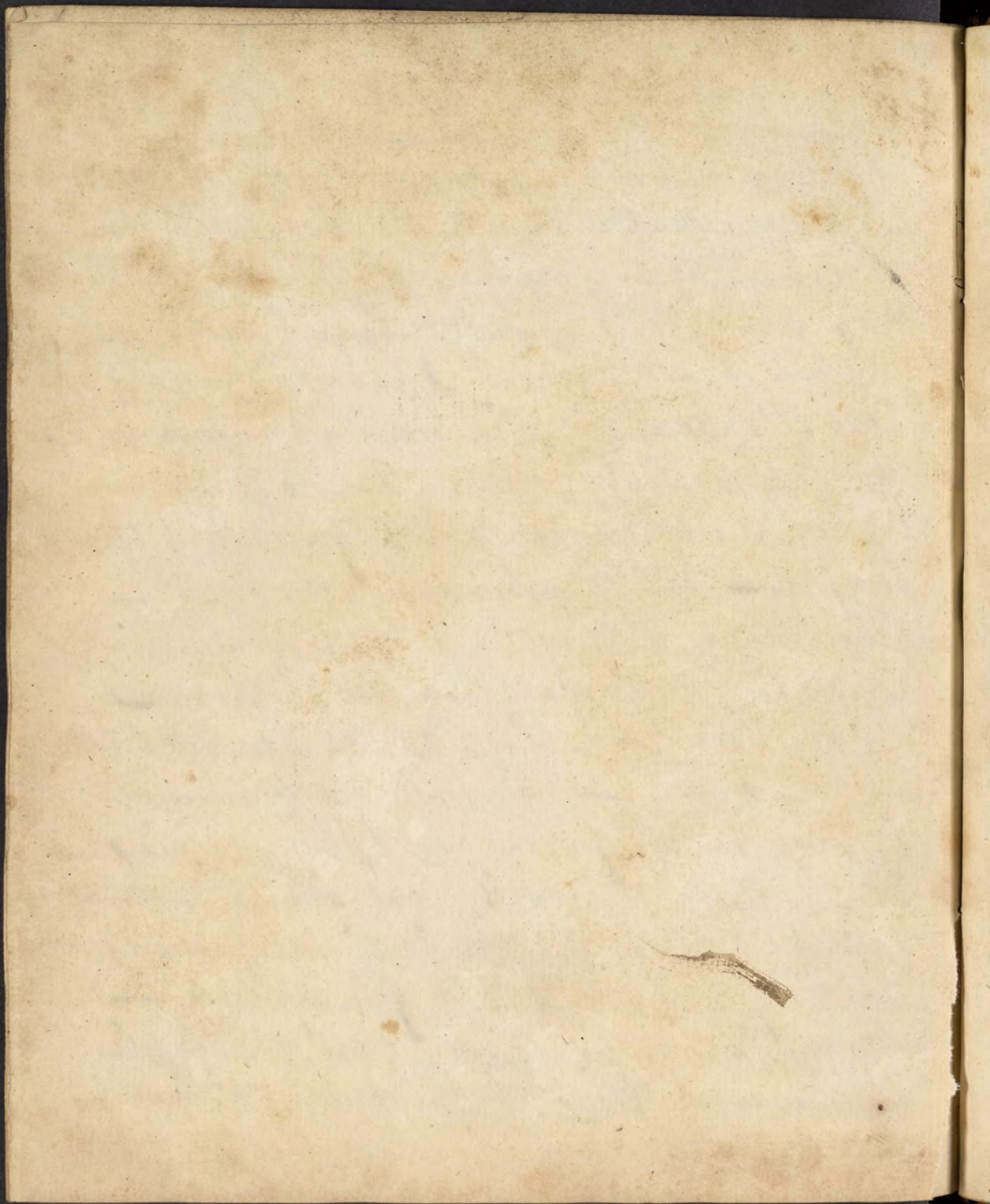
the Dura mater & the brain. —

120

In such cases the question arises whether the dura mater should be punctured for its evacuation or not. To puncture it is very dangerous, & has always been fatal in those cases which I have witnessed, —

The Marks of effusion under the dura mater are the following; when there is no effusion under it, the dura mater presents a flat surface — but in other cases it is convex — presenting a spherical surface protruding through the perforation in the bone — I have seen it as high as the external table of the Skull. — In such cases also you cannot see the pulsation of the arteries of the dura mater & moreover the natural falling & rising of the brain, dependent on respiration is not perceptible. —

Some surgeons direct, that when the effusion is fluid a puncture sh^d. be made,

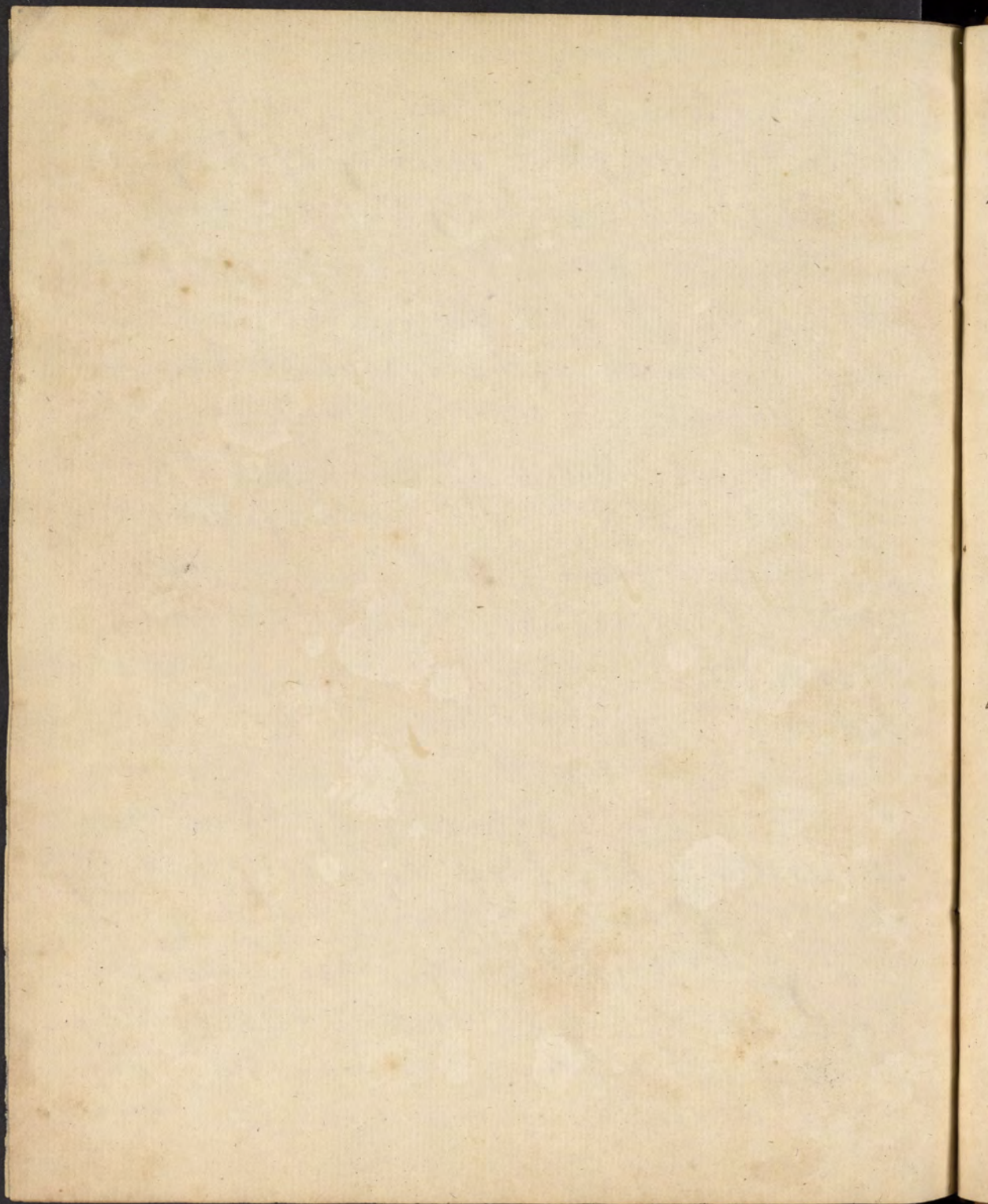


this direction, I think, should only be followed
 where there is great severity of the symptoms,
 as it is almost inevitably fatal.

If however, you are not immediately called
 & do not see the part, for several hours, you
 may suppose the blood coagulated & you must
 never puncture under these circumstances.

This is not allose speculation. I have
 had a case of a patient with symptoms of
 compressed brain, with fracture of the
 bone & I perforated the bone & raised the
 fragments, the part was somewhat relieved,
 but in a very short time the dura mater
 was elevated & pushed thro' the aperture.

Instead of puncturing it, I kept him
 perfectly quiet, bled him very profusely
 generally "ad deliqui Animi" & often 4 times
 a day. — I first applied cold to the head
 & then enveloped it with a blister. By
 these with other auxiliary means my
 patient recovered. but judging from

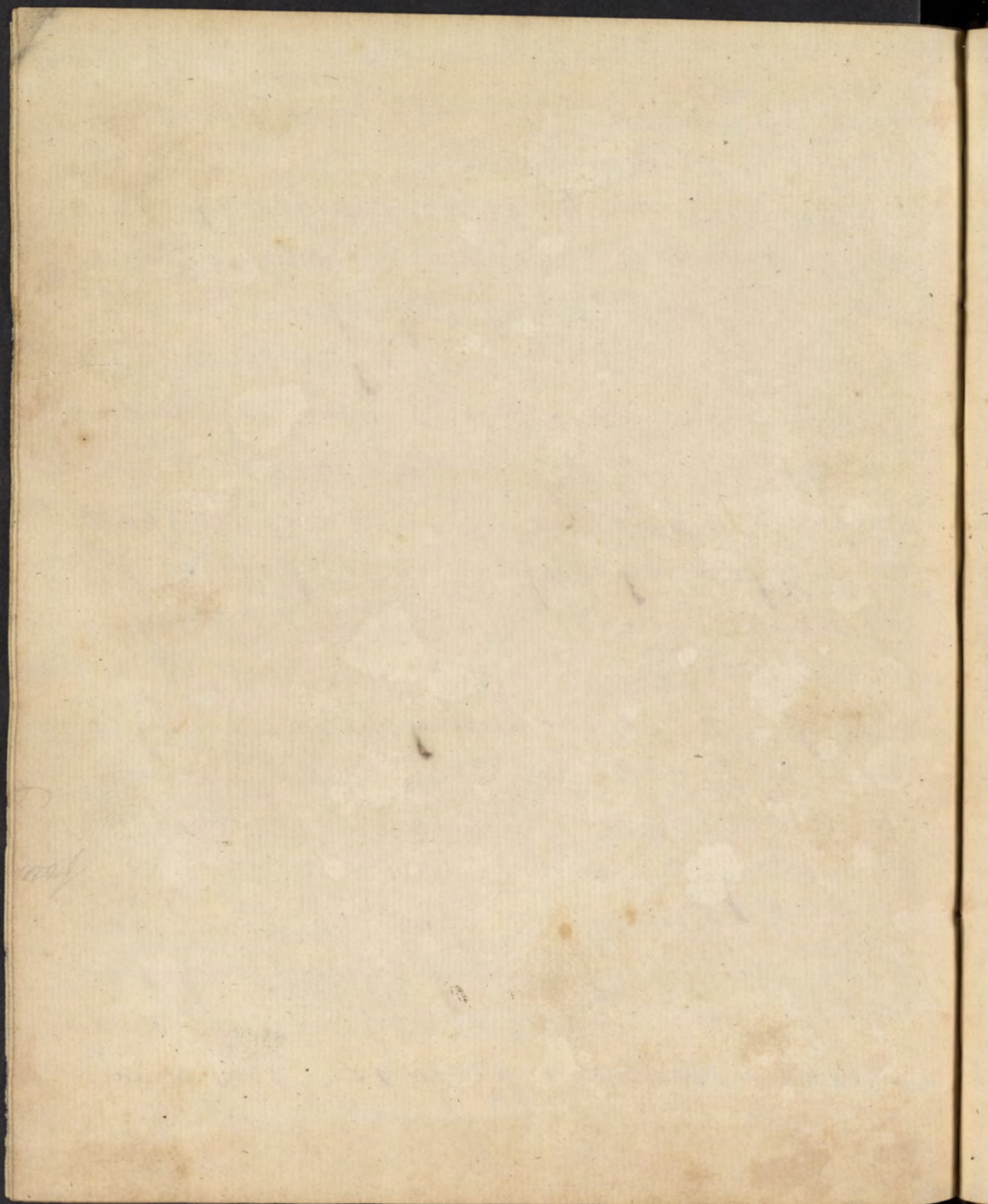


what I have seen he would have died if the
fracture had been made.

Sometimes the large Middle Artery of the
dura Mater is wounded & continues bleeding.
Now it would be very improper to secure
this in the usual manner by the Needle & Ligature
as the ligature would be a seton in the dura
Mater, keeping up constant irritation.

In preference to this, the hemorrhage should
be stopped by keeping gentle pressure on it
by a succession of assistants, but a still pre-
ferable method is to press the trunk of the
Artery against the Anterior Cranium, by in-
troducing a small piece of lint between
the dura Mater & the bone in the course of
the Artery.

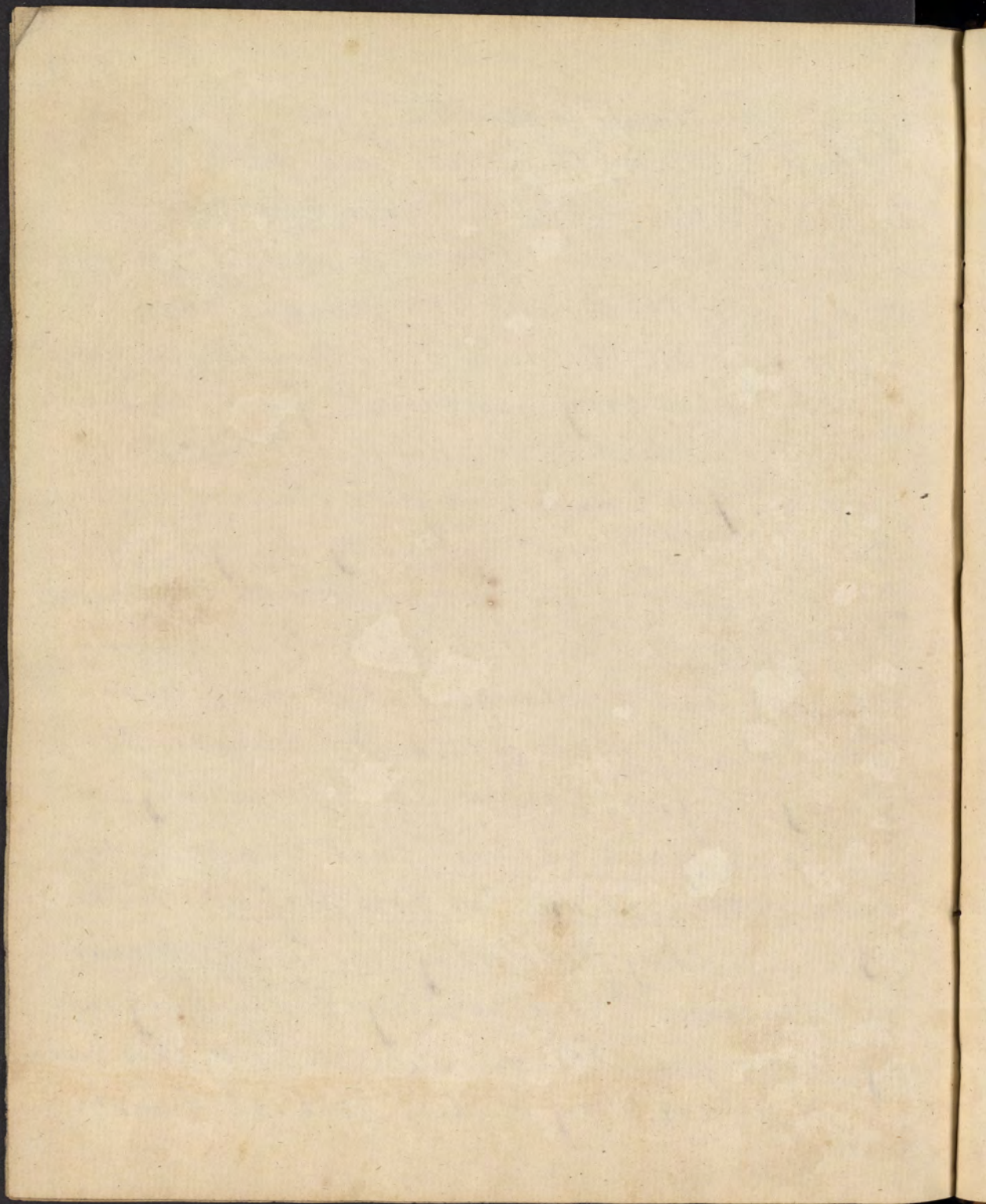
If the sinuses are opened hemorrhage is
very easily stopped by a pledget of Lint-
oche is another state of the dura Mater,
which sometimes occurs. This is a
bruised state of the part by which its



life is sometimes destroyed. —

I had a case of this kind in a child, who had a fracture of the frontal after having trepanned the bone, I noticed an unusual appearance of the dura mater, exactly resembling a bruise — the child in some measure recovered & I had very sanguine hopes of its complete restoration to health. — At the expiration of 7 or 8 days, the part thus circumstanced began to loosen & actually decayed off. Suppuration of the brain was the consequence & the child died — Now in such instances nothing can be done, but it is well to know it, so that you need not be too hasty in prognosticating favourably. —

I be on your guard that you do not take intoxications for compression of the Brain — they have very many symptoms in common, but generally can be very easily distinguished. — A mistake of this kind fell under my notice several years ago



in Edinburgh. —

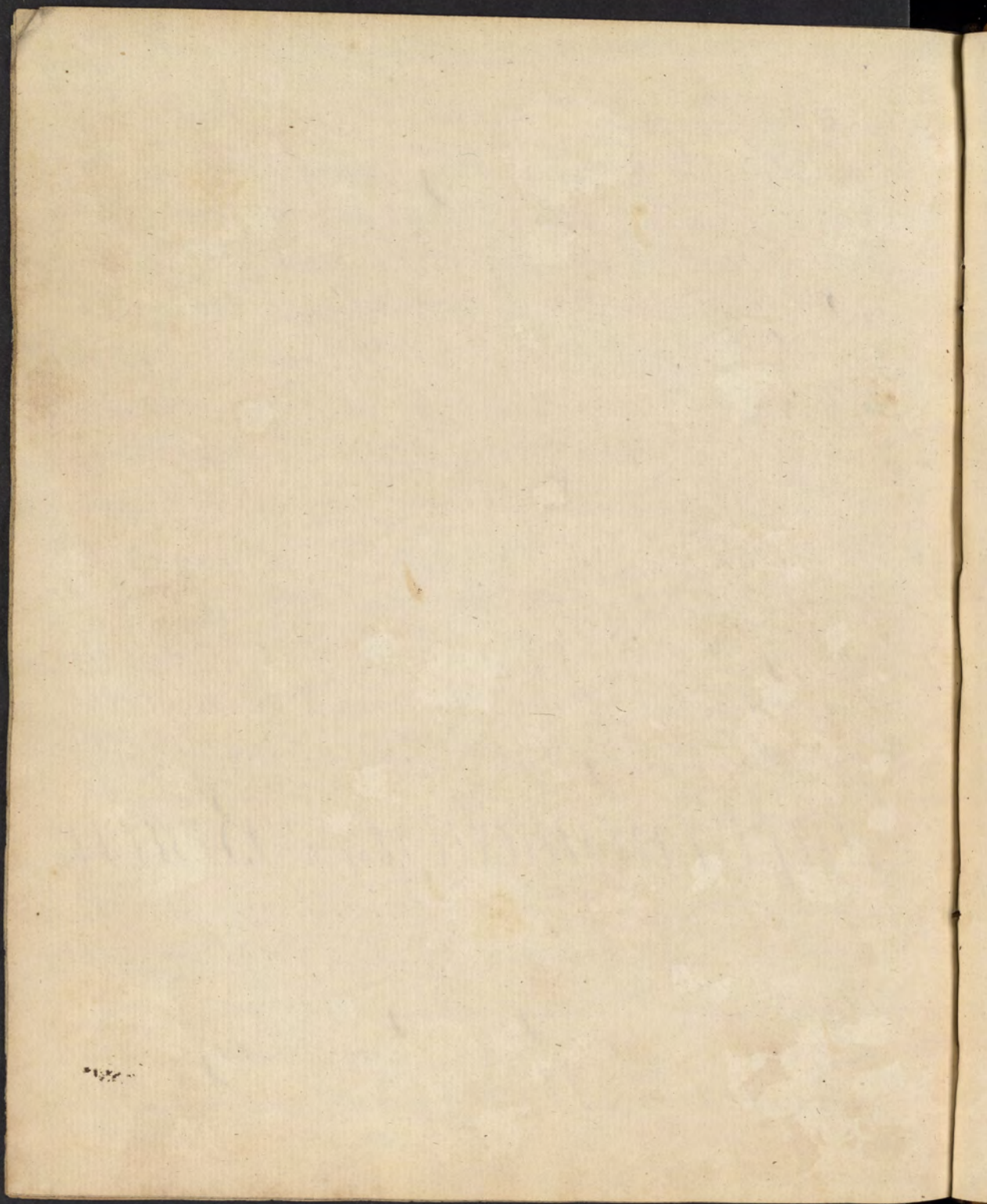
A Hostler became very much intoxicated and in that situation went among his horses, one of which kicked him on the head. —

About midnight he was taken to the Hospital, the Surgeon was called & it was determined to trepan him, from some circumstance however, it was put off till the morning; in the interim the patient recovered from the effects of his inebriating draughts, & learning what the Surgeon contemplated, quickly walked off with himself. Remember this & always notice the breath of the patient & get the history of the accident if possible.

Inflammation of the Brain

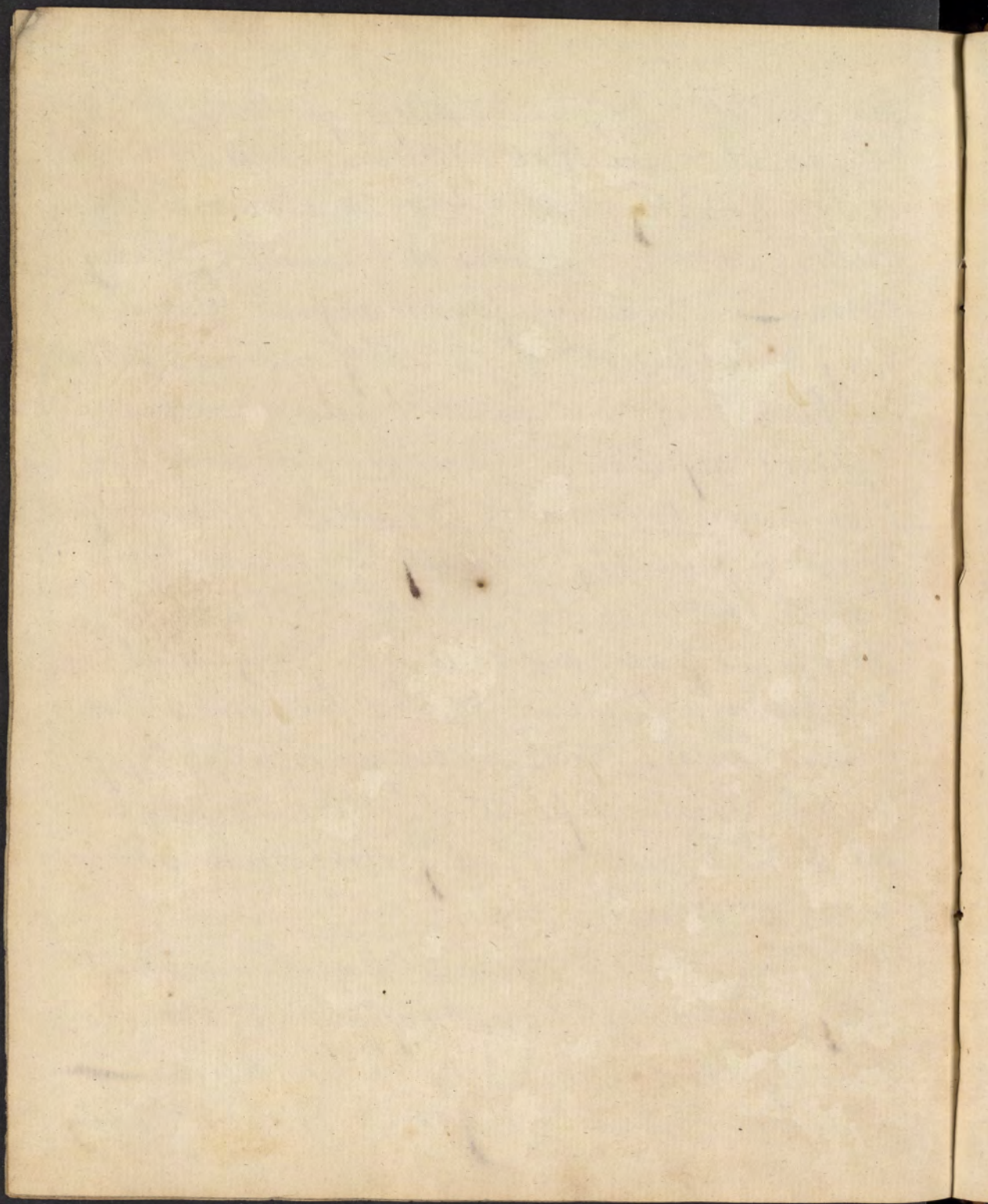
After the several accidents, enumerated, inflammⁿ of the Brain or its Membrans is very likely to occur. —

This does not appear immediately, but after several days. — The patient at first becom-



ing restless; he has no sleep, pulse is hard & frequent, face hot & flushed, eyes red, there is occasionally, sickness of the stomach & vomiting, chills, vertigo, delirium, & finally coma, — These symptoms appear from simple Contusion of the Scalp, from a wound without fracture — from fracture with or without depression & from concussion of the brain. — In cases of Contusion of the Scalp however well the part may appear at first it will become tumefied, not hot & inflamed, there is no pain, but it is soft & flabby as if it contained a fluid — If this tumour is opened, a thin serous will be discharged, the Scalp will be found separated for some distance, the bone denuded of its periosteum and of a white colour. —

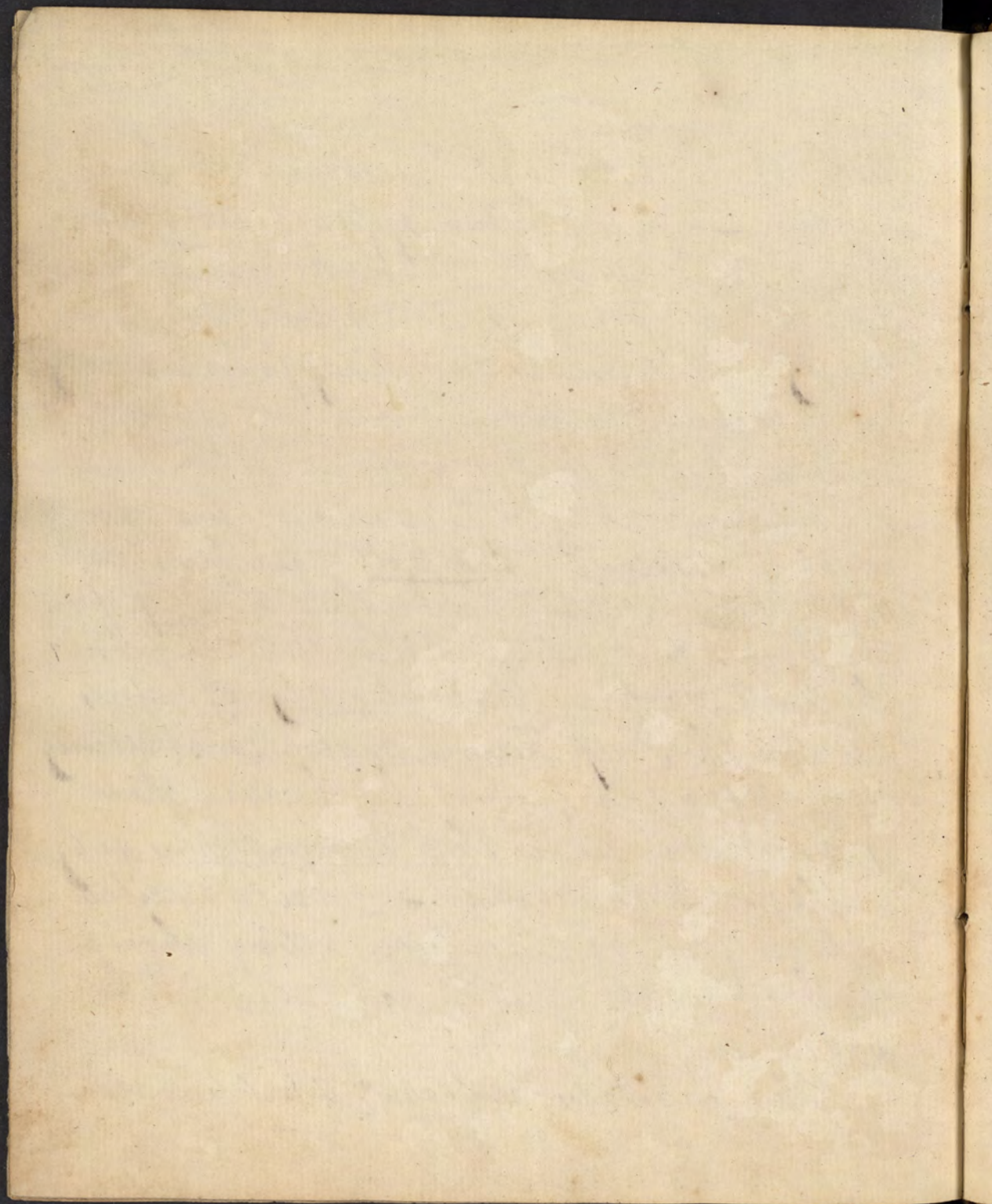
If there be a wound however well it may, at first inflame & suppurate, & however healthy its granulations will appear — in a short time, they will become flabby



Spine, discharging a thin Pus - the Scalp
 here will also be found detached for some
 distance. - Now all these appearances show
 that there is inflamⁿ. within, because inflamⁿ.
 cannot take place on both sides of the same
 cavity - it diminishes and disappears externally
 & is increased within. —

Now, how is it that inflamⁿ. of the brain
 or its membranes is produced when there
 is no fracture? Mr. Pott attributes it,
 to the force applied separating the Scalp from
 the bone & at the same time the bone from
 the dura mater - the contiguity of vessels
 between the Scalp & dura mater being destroy-
 ed. - But this cannot be the case there
 is no reason under these circumstances why
 inflamⁿ. should occur. - I should attribute
 it to the force of percussion acting through
 the bone on the membranes & even on the
 brain itself. —

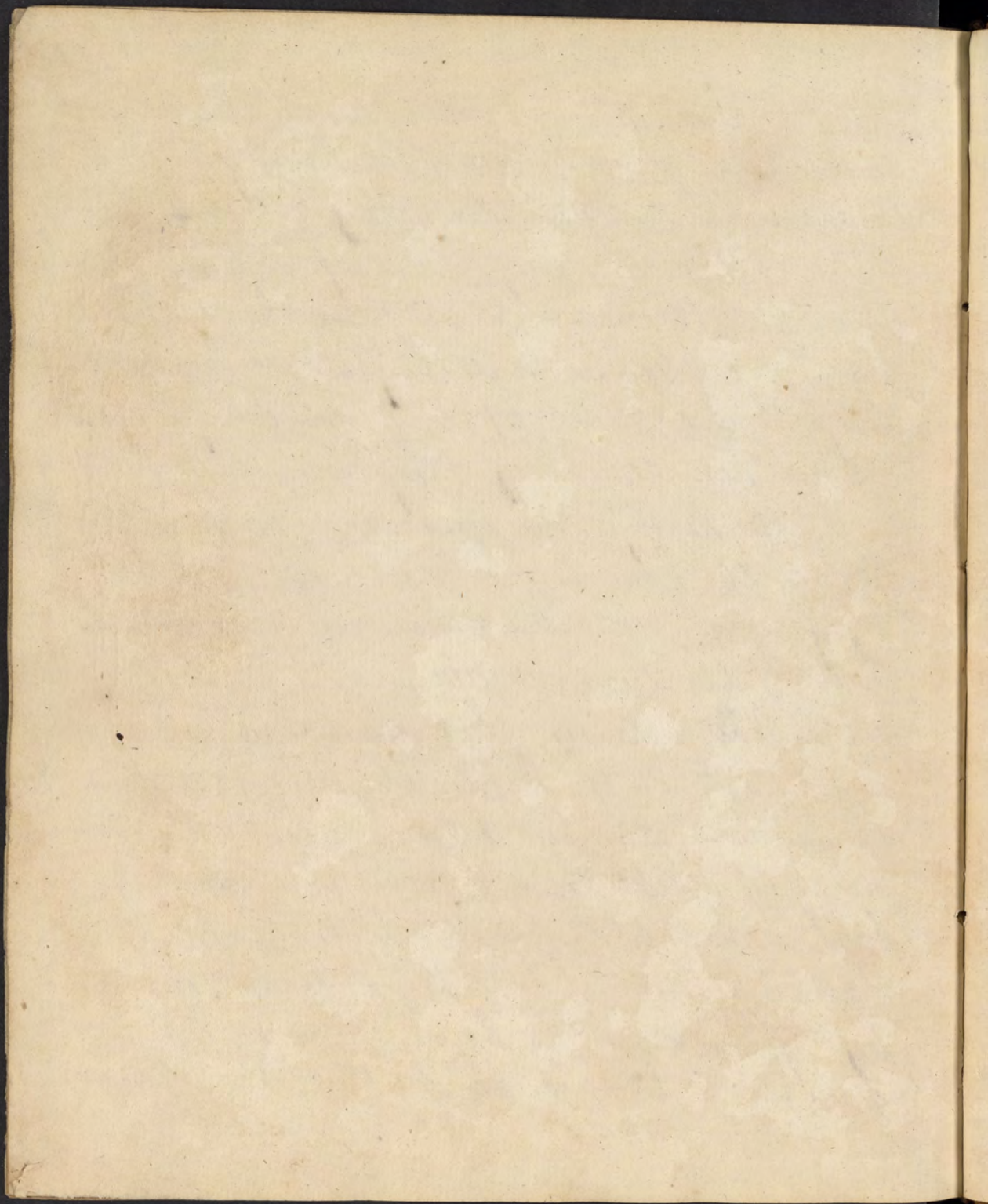
This irritates, inflamⁿ. & suppuration



are the consequence. - Now when this occurs between the dura mater & the bone, proper treatment & an operation may relieve - but when inflamⁿ. is deeper the operation will be of no service - In all cases then of Contusion, we should put the part on low diet keep him at rest & free from company, Bleed him generally & Topically. -

If the symptoms increase, you must perforate the bone to give vent to the pus which by pressure would otherwise cause ulceration of the dura mater. -

Mr. Pott advises, that in all cases where there is a crack in the bone - the perforation sh^d. be made - In this I & numerous other surgeons disagree with him & maintain, that the bone is not to be perforated till inflamⁿ. has appeared. - When inflamⁿ. is induced by specula of the bone, more or less suppuration issues, the part often appears



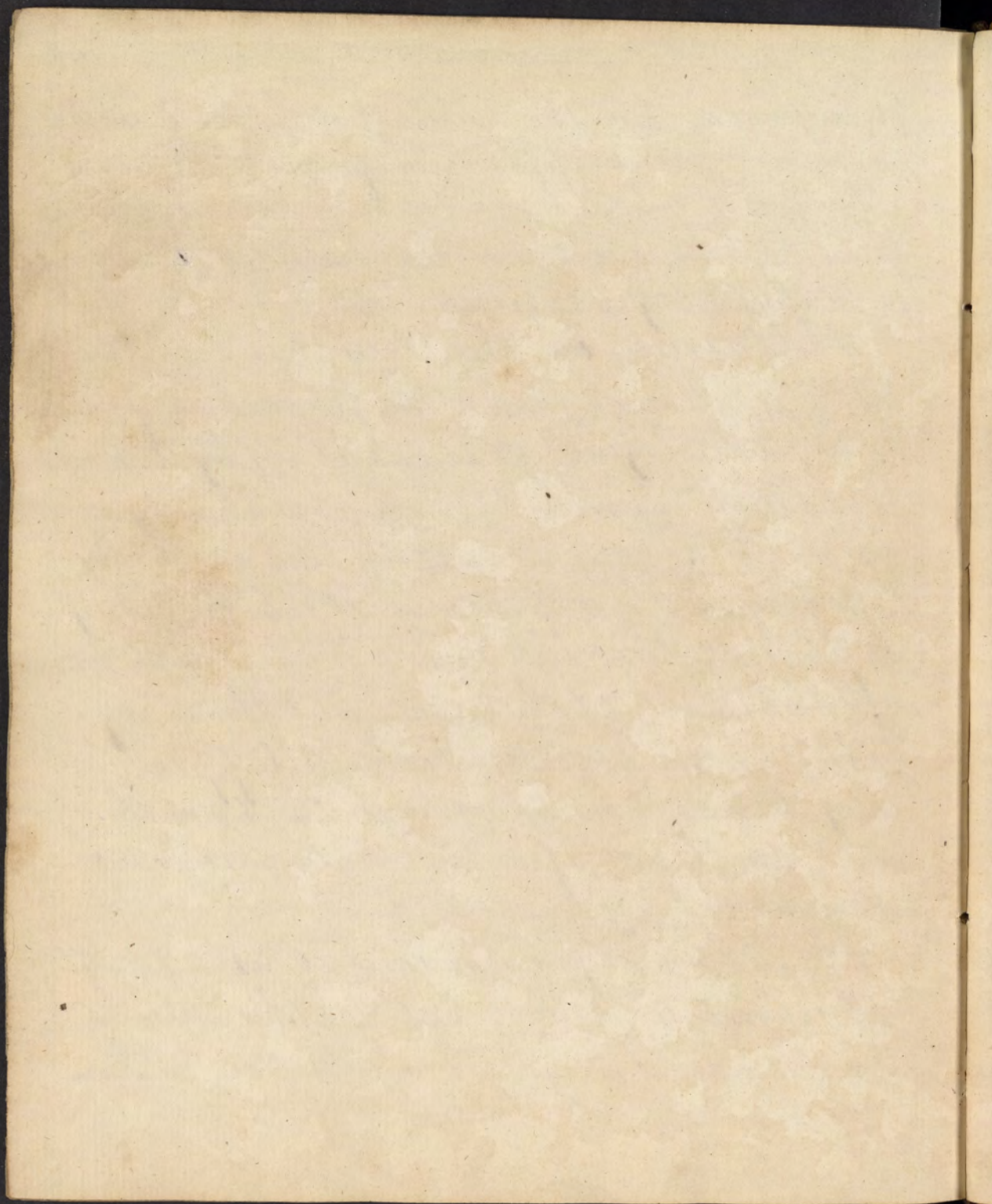
to improve, but the opening of the dura mater increases & a new appearance presents itself,

There is a protrusion of a soft substance forming what is called Hernia cerebri, which is always very dangerous. —

The practice in these cases has been to tie a ligature around the protruding part, so as to destroy it, or to cut it off by the knife.

In these cases the tumour was quietly reformed & no new advantage was gained by its frequent extirpation. — It was formerly supposed, that this was a new growth from the substance of the brain, but this is impossible, as we have no reason to suppose that any tumour could grow in the same time; in a few hours after extirpation it would become as large as ever. —

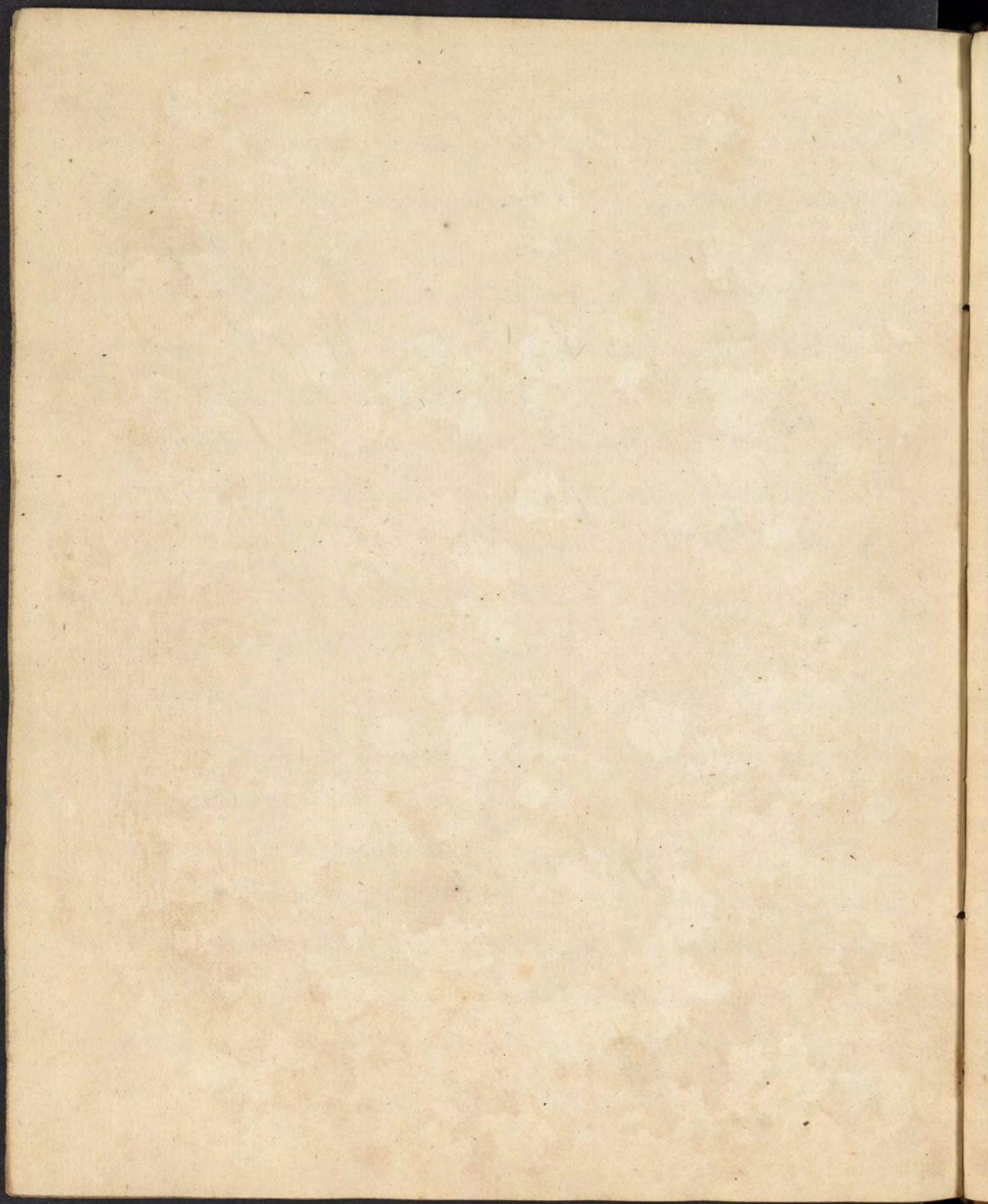
Mr. Abernethy considered it as a lump of coagulated blood, but for this there is no foundation. — From dissection I am



inced to believe, that it is a portion of the brain itself: as I have been able to trace the brain to this tumour. But you may ask what should cause the brain to be protruded in this manner? I believe it to be owing to suppuration in the substance of the brain, the pus collecting, presses on the brain & squeezes it, through the opening, in this fungus form.

Now, if I am right in this supposition, it will be justifiable to make a puncture, thro' a portion of the brain in several directions, till we find the abscess & evacuate the pus, I am happy to learn, that this has actually been done with success by Mr. Hill in England.

Dr. Dorsey also has had a case of Fungus cerebri when about the 8th or 9th day a vomiting occurred, the tumour broke & the patient recovered. — I would therefore make a puncture and introduce a Cannula for the escape of the fluid. —

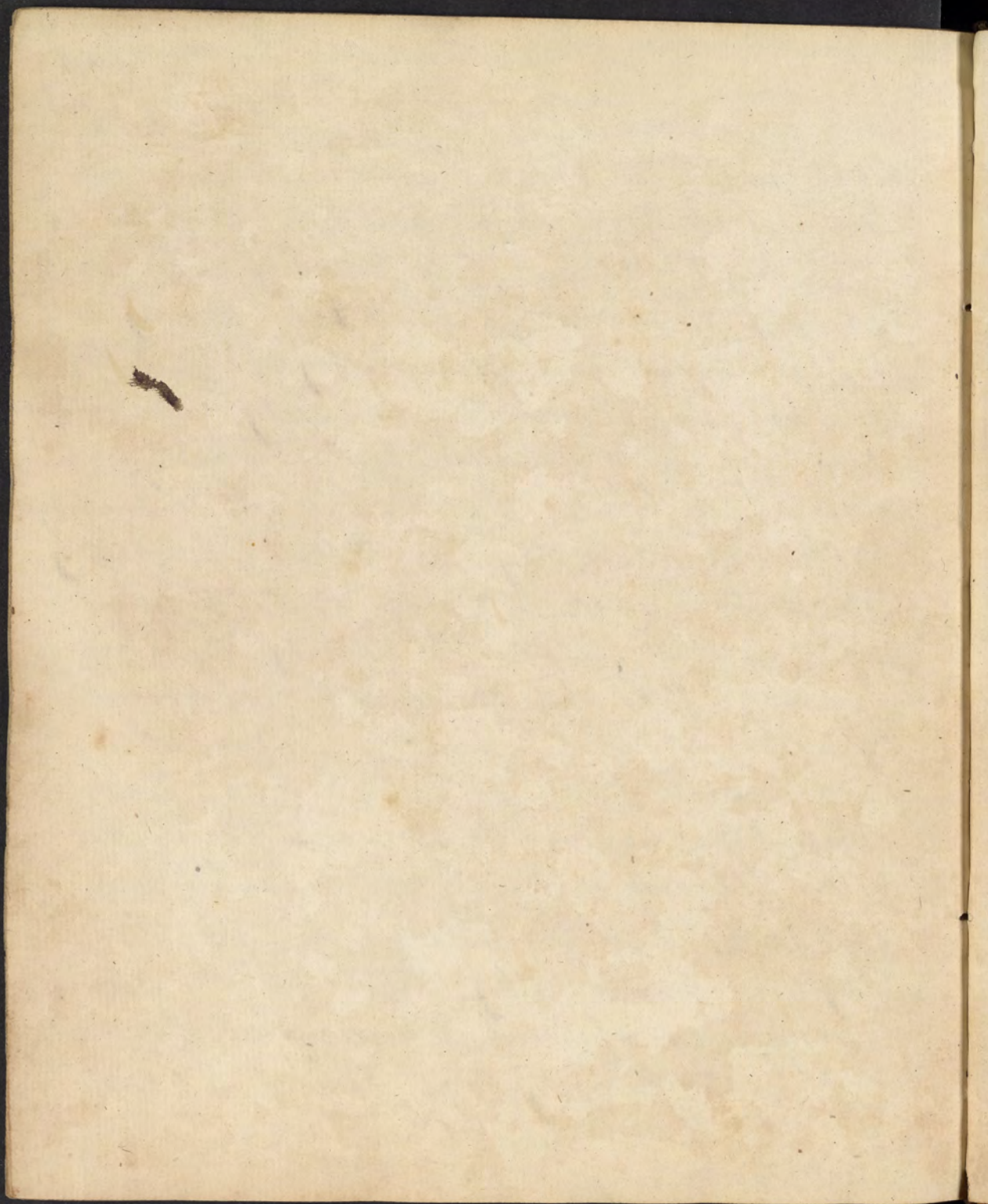


There are many cases on record in which portions of the brain have been removed and yet the part has recovered.

These we cannot satisfactorily acct. for but they are encouraging & I think may be in some measure explained by the fact, that the fluid here formed can be freely evacuated. I once had a case of a child, in whom portions of the brain were found on its face, I removed them myself - I put him on a very low diet, bled him freely, on the 3^d day he began to grow better & he finally recovered.

I had a case of a child who was kicked by a horse & had a small puncture of the dura mater, knowing the danger of such cases I was anxious to close it - I with this view covered it with the detached integuments & had the pleasure to find that they had united, by which the dangerous consequences of such accidents were avoided.

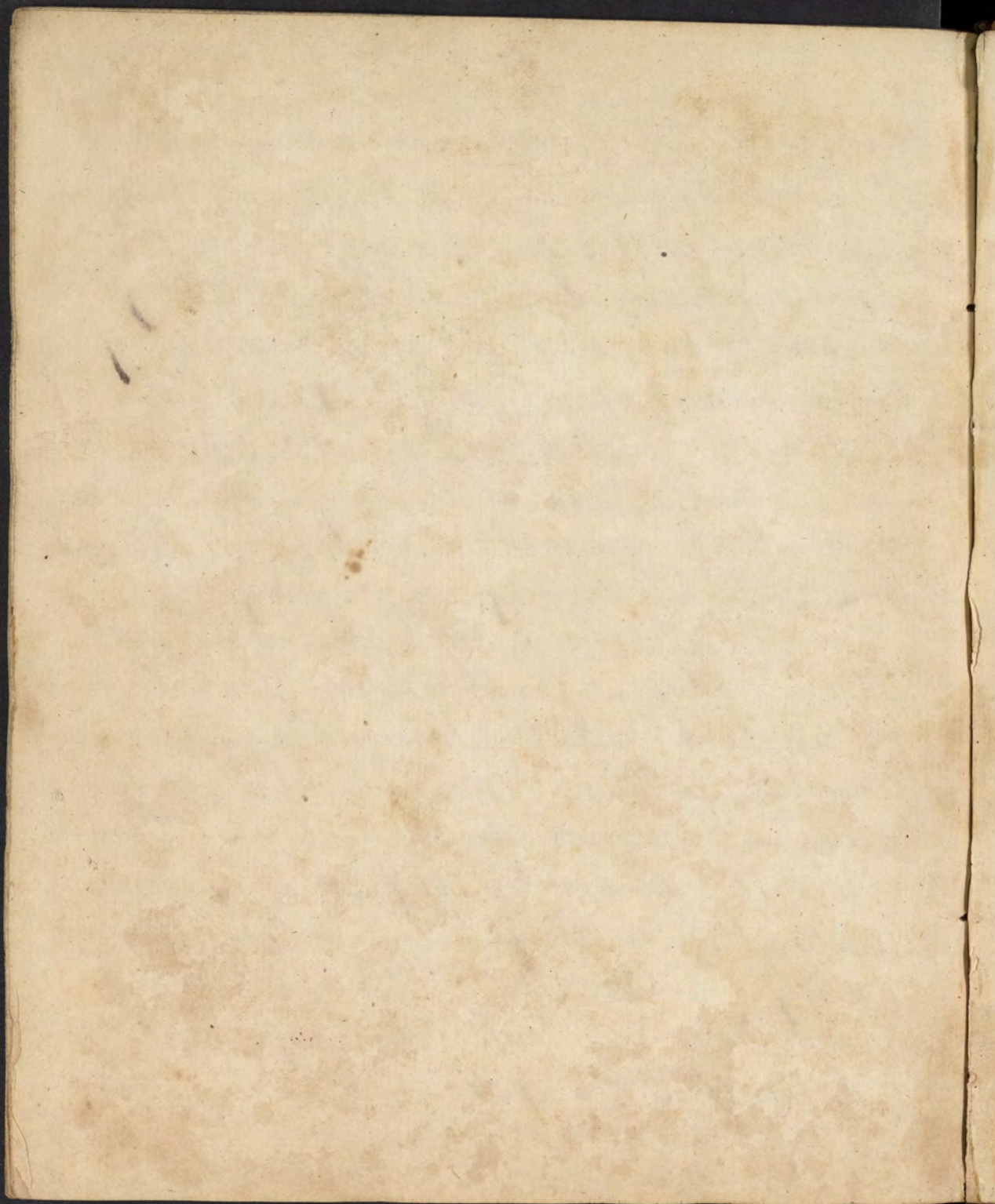
This is the only case which I have



seen, but in all similar cases, where the wound of the membranes is small I would advise the repetition of this practice.—

Although inflammⁿ of the brain usually occurs in 10 or 12 days, yet it sometimes appears Weeks, & Months, after— I have known it at the end of 6 Months & on one Case 12 Months after.— On this Account the Antiphlogistic treatment is to be continued, not only till the symptoms abate but till they are completely removed.

One of those Cases I will relate to you— Captⁿ Turner while at sea received a small blow on his head which disabled him for a considerable time but he recovered in a great Measure without much attention— There remained a tumor on the part— This afterwards became very painful, was considered by a Surgeon in Philadelphia as a venereal Node of the part. was kept under a Salivation for 4 Months & had leeches



applied to it, with various other treatment
 all to no purpose — He went to England
 where he was again put under a Mercurial
 Course upon the same supposition. He came
 afterwards to this City on his passage he
 had several fits & also a constant numbness
 of the left Arm & Leg — He afterwards lost the
 use of these limbs — He was put under the
 care of Dr Rush who bled him freely &c.
 being called in, I proposed an Incision
 to examine the Cranium — We found the
 bone very rough & black which leading to
 the supposition that there was mischief
 within, the next day we trephined him
 & found a little pus on the dura Mater, very
 little however — He soon after died, upon
 examination the dura Mater was found
 to be an Inch thicknes and under it
 there was a little pus. —

OFFICE OF THE
SECRETARY
OF THE
TREASURY
WASHINGTON, D. C.

