Thesis

On some Cartilaginidae in the Irish Sea.

De Cartilaginibus genu Lagis

Charles Hard, Cork. 1839.
On Loose Cartilages in the Knee Joint

There are probably few subjects which come within the range of surgical treatment, of more interest to the practitioners, and of greater general importance, than Diseases of and accident to Joints——the great pain and suffering attendant upon these diseases, and their dangerous results, tend more strongly to them, than anything that could be written upon the
Subject, the importance of studying and following up each disease, with the greatest minuteness and accuracy.

The knee and the hip joint, the two of most importance in the human frame, and upon which our powers of locomotion principally depend, are perhaps more liable than any other to disease.

Rheumatism of the cartilages, the most formidable of the diseases of joints, with which surgeons have to contend, more commonly attacks the hip, while the knee is most generally the subject of “white swelling” (hydrops articularis), inflammation of the synovial membrane, and of loose cartilage within the cavity of the joint.
Anurch. Latter subject, from having had a very interesting case under my own observation, from its coming from its final cure. I propose to write the following traits—

It is necessary to state, however, that these cartilages are not met with in the knee joint alone. Morgagni and Dr. Benjamin Bell met them in the ankle joint,aller in the joint of the jaw, tear in the elbow, variance in the shoulder; they have been met with in the articulation between the tibia & fibula, and also between the metacarpal and phalanges bones,

The first case an record of one of these bodies occurring in the
Since Saint is mentioned by Paré as taking place in 1558, he describes it as a hard, white, polished body the size of an almond. In 1691, Delhio published a case, in which extraction of one of these bodies from the bone was successfully performed. In 1736, a Dr. Simpson extracted one successfully. Unfortunately, however, we have instances of this operation terminating unfavorably and even fatally, in the hands of the most experienced surgeons. In later times, the disease has either become more common, or else has attracted more notice than formerly, for some notice of it is to be found in most works on surgery.
The following cases are given as illustrating the manner in which these cartilaginous deposits take place in the joints, of the effect they produced, and the results of operations for their removal.

Case 1.

In 1726 Dr. Alexander Carse, professor of anatomy in the University of Edinburgh removed one of these cartilages from the body of a man who had been bitten. It was found within the articulation of the right knee, about the size and shape of a small turkey knee, depending...
by a ligament half an inch long from the external side of the tibia. The foreign body when cut, had only a thin external firm plate, being composed within of cells which were full of oil. On separating the femur and tibia, the ligament was seen coming out from the anterior edge of the cartilage covering the external cavity of the tibia, and more internally, a part of the cartilage of the tibia, of the same shape as the foreign body was wanting. From the circumstances of the ease it was impossible that any information could be obtained as to the circumstances.
Case 2

In 1726 the following case occurred to Dr. Lempson, professor of medicine in the University of St. Andrews.

A countryman near St. Andrews had for several months a numbness and pain in walking in his left knee; he had received an alarming injury, when the pain was smart; there he found his hand, body under the scutula and on the inside of the leg, sometimes it appeared at the opposite side, so that it could not be relieved from the pain except by chafing it upwards and making it chastise. The knee was considerably swollen and used when he attempted to walk, the cartilage made its appearance.
I could then easily catch and hold it between my thumb and finger which made me suppose it was immediately under the skin, and which caused me to pull out a bullet to open it, but the man was unconscious at the time the operation was performed a few days after the patient being in perpetual pain from its falling down which always happened whenever he stirred. I made an incision with a scalpel down upon the body holding it between my fingers and thumb but to my surprise when I made my first incision through the skin and cellular substance I found a strong membrane, but between me and the tumor, which made me sensible for the first time where the floating body was.
Pouched, however, I now reckoned the operation of more importance than formerly. I was satisfied not
else could help saving habitus, then to continue the incision which I did, and upon entering the bag
there was at least four ounces of serous with the foreign body, which
found much of it the shape though
larger than a kidney bean, appear
my entirely cartilaginous dentate
and protrudent but when drying
it shrunk, and showed a bone
covered with cartilage, the habitus
experienced great pain an entry
through the bag, but became easier
on taking the body out. After the
operation I earnestly desired him to
stay all night in town, which he
would not hear of, and after a
few hours rest, rode during the night.
Two miles into the country, under a heavy frost, which raised the
hand in his h cue to the greatest
height, and obliged him to send
for me at midnight. I applied
morderns but with little effect
the next hair was on the opposite
side to that on which the incision
had been made, he was thin blood
and fungus, with eczema, but all
in no manner, he was never free
from terrible cries and complaints
for a month, he could not allow
his leg to be moved, and never slept
but when he took opium. Bladders
of warm water round his leg had
little influence, but water sprinced
took more effect, which I made
his men do for near an hour eac

from a large vesicular swelling, but though this ceased the pain and swelling to abate, yet it did not carry it quite off, till I applied a forceps done to the side of the knee, which being kept running and the swelling continued, it gradually wore off in about a week's time, so that he was quite free from all complaint and swelling, and walked about without any impediment.

Case 3

The following is a case of successful restoration by Mr. Ford of London in 1775, the subject of it was a tenant of a house in Bethlehem aged 18, of an athletic habit of body and sound constitution.
states that after a fall, he was immediately seized with a violent pain in his left knee, followed by swelling, tension, and pain, particularly when he walked quickly.

The disease existed for several months. Using a new method of cure, an evening to one Mr. Ford, I found a loose body about the size of a small chestnut in the joint. It changed its position on every movement of the knee, and the patient could move with facility to any part of the joint, he was sensible of great pain on walking when it happened to get under the external condyle of the femur. Concluding that no topical application would be of any utility, I performed an operation.
but told the patient of its uncertainty. He readily consented, as he saw his living depended on the full enjoyment of his health. I then determined to take it out. The swelling was reduced by rest, low diet, and frequent and frequent processes to operate, the ligament, and the foreign body was brought to the outside, being then divided by the hands of an assistant. Incised an incision two inches in length, and afterwards a smaller one on the body itself, and by a discharge of synovia I found the cut through the extensor ligament. The foreign body then escaped through the wound (it was cartilaginous). The cut was immediately closed, and maintained
in that situation by strips of adhesive plaster and a bandage, he was then led to fifteen ounces, which was twice repeated in smaller quantities in the course of a week, his diet was low, his bowels kept open, and the bandage kept wet by tannin solution. All went on well until the seventh day, when he complained of pain in the knee, headache, thirst, cough, and vomiting, also great restlessness.

On examining the knee, the wound was almost united, he was again bled and purged, and the next morning the measles appeared and in due time disappeared.

The knee became more cold, and in a few days the wound was healed and in a month after the operation he returned to the country, well...
This extraordinary body was cartilaginous throughout its whole substance; convex on one side, concave on the other, and skirted round the edges with tender fibres which rendered the appearance of hair.

Case 4th.

The following case of successful extraction occurred in the Westminster Hospital on the 22nd August 1837 to 195 Eynsford Lane, vol 1, 1857 (p. 360). Charles Patmore, a tall, well-conditioned young man, 10 years of age, by trade an iron turner, was admitted on the 22nd August, with lameness and enlargement of the left knee joint. He remarked that he could feel something slipping about the joint from side to side after
examination a bony portion of cartilage, about the size of a large
rudderless bean, was found to traverse
the joint, taking great latitude from
the anterior to the inner condyle of the femur
reaching from two to three inches
above the patella but never going below
that bone, when at rest, it was deep
seated on the anterior side of the joint
and scarcely discernible, but when
forced to the inner side of the knee
it came very near to the surface.
and its shape could be distinctly
ascertained. The knee was much
enlarged the swelling being very
elastic, without much inflammation
and having the appearance of
infiltration of fluid into the
cellular tissue, there was but little
pain or weakness whilst the limb was at rest, but when in motion a dull obtuse pain was experienced which increased with the continuing use of action. He had never fallen through sudden and severe pain as is usually the case with those sim.

clearly affected, believes that it originated in a blow against the latter wheel, about four months ago; he did not experience much weakness at the time, and had indeed almost forgotten the circumstance, till about six weeks afterwards, when his attention was drawn to it by considerable pain and enlargement, and about the same time, he perceived the moveable body within the joint. On admission
he was sent to bed, aperients were
given and sedative lotions were
administered, when the inflammation, ab-
steming from the long stay of the fort, with camphor
was used, with the view of promoting
absorption. Having continued these
measures for four or five weeks
but with little effect, my
colleagues concurred, I resolved upon
retracting the loose body. With
this view, having placed him in
a suitable position, and the
cartilage being forced to the inner
deck of the lance, it being the most
superficial, an incision was made
upon it through its whole length
the first incision discovered the white
body glistening underneath, and
when another touch of the knife
it that out with a force that pro-
jected it some inches from the
side of the wound were immediately
fixd together, and secured by
adhesive plaster, a bandage was then
applied with a splint below the bone
to prevent motion, and he was remov-
ed to bed. On inspecting him next morn-
ing no pain or inconvenience was com-
plained of, the part was cool and
without any appearance of inflam-
mation. In a few days part of the
dressing was removed, a very trifling
discharge was found to have taken
place; and the wound appeared to
be just uniting, in a few days
more, the patient left the Hospital

the following are accounts of some
preparations of foreign bodies in
Joints, which are preserved in the museum of the Edinburgh College of Surgeons,

case 5, quartering 50 B.C.

Successful extraction by M. Allen.

John T. — le. aged 19, 12 July 1828

"flattening bone in his left knee joint, is a small cartilaginous thorn of the side of a walnut, somewhat flattened, impressed very much the movements of the bone, creating much pain when it comes to particular situations, for instance, between the patella and condyles of the tibia, the knee joint is somewhatycle, general health tolerably good, he feels that about a year ago he first perceived the tension it was then of less magnitude.
than at present; two opere trains have been performed to remove the disease at the outer part of the joint which I failed, 16th. M. J. Ca. Campfield 16th. Mr. Allen. today, by the advice of a consultation, made an incision at the outer and inner side of the knee joint, having previously made back the integuments, and piled the foreign body. He enlarged the opening by means of a probe, printed curved, distantly, and extracted the tumor out; the integuments were drawn together, and secured by means of a stitch, adhesive plaster and a bandage were applied. In the event a fungative enema was administered.

17th. Night little complaints of some pains, not very severe, considerable
swelling, pain in the left of blood Pulse 90. Cough, tongue clean, bowels open.

Little thirst, "Lemonade to drink 8 o'clock, complains of more pain in the knee, no constitutional irritation. "Stirred xx gum", he also had a calomel, and mustard big doses of tartan emetic, 4 A.M. complaints of violent pain in the knee which is considerably swelled, much constitutional disturbance. Pulse, 100. Full and strong, skin warm, much thirst, he was bled, and xx leeches applied to the knee, bled again, but only xyce was able to be obtained, his pulse became less full and strong. 10 o'clock, pain much easier, still however felt some pressure, knee is swelled, Pulse 60 less full. no headache, some treated...
no dressing, much heat of surface tongue clean, basalts open, "thread".

The case went on much in the same way until the 23. the pain in the knee ultimately little and worse, poultices being frequently applied, and purgatives administered, with occasional anodyne. On the 23 and 24 there was a distinct sense of fluctuation, particularly at the outer part of the knee, and in the course of the circumsair, was a projection about the size of a nut having a hole in the centre, through which there was a discharge of pus. At the same time the penis was swollen, and exorciated, there being two small sloughs on the vulva, and gland. 26th - pain in the knee had almost disappeared.
the swelling had diminished, there was no discharge, and less inflammation of the penis; so the case went on until the 28th, having anodynes, and solution of the acetate of lead applied, when the pain was again considerable, the protrusion between the edges of the wound larger, and ulcerating. In the 29th, complained of pain in the region of the sacrum, and a slough was discovered there, hence impounding. So, hence impounding, complained of pain in his left side, not increased on taking a full inspiration, but less inflamed. Penis much impounded. August 1st, complained of pain of the left hamate, which was found to be ulcerating, the knee much less swollen, so he went on until the 4th.
when some increase was made to the diet, 9th Fingers of the line has now quite disappeared, a slight ulceration only remaining, from which a considerable discharge takes place, the knee is now of much less size, slough of the back has entirely separated, the knee went on improving until the 12th when he was dismissed cured.

Case 4th

Case of Mr. Wilson

One of these bodies cartilaginous on the outside, and bony in the middle, it has been fastened to the anterior cruciate ligament, and from having been some time loose, is now into an oval shape a cluster of pieces of bone, or cartilage is seen adhering above the patella.
to the inside of the tendons inserted into that bone, around the cartilaginous articular surface of the bone, is an irregular ridge of projecting bone, any of the breaking off, or becoming detached in any way, would form the friction they must be subject to, soon change to a rounded or oval shape; the articular cartilages of the patella and femur, are in parts completely removed; the ligaments are also thickened and diseased.

Case 21. 7.

Mr. Gardner removed nearly one hundred albuminous substances, by an incision into the sheath of the flexor tendons of the middle finger, near to the part where the tendon of the flexor sublimis is perforated by the profundus.
The disease had been six or seven years in existence, the subject was a man fifty years of age, great relief, and immediate reduction of the swelling, were the immediate effects of the operation.

Case 2.

The following abstract of a case is taken from Dr. Liston's Work on Surgery. In the last case, where the operation was performed in the utmost care, most violent inflammation ensued; and the wound opened, purulent secretion flowed out in great quantities, and an exhausting discharge continued for many weeks. At one time the constitutional disturbance was so great, as to endanger life, the limb was saved with difficulty.
and the joint anehylated.

Case 9th

Extraction of a cartilaginous body from
the knee joint by Arnold Middleley Hospital.

The cartilage was about the size of a bean.
A similar incision was made, and the cartilage
extracted, and a sterile metal joint and
sulci. Lotions applied, two days after
the operation, when the wound had nearly
healed, inflammation came on on which
hemostasis repeatedly applied, but the
inflammation increased, terminated
in suppuration, and such constitutional
reaction as rendered amputation ne-
cessary, which was performed two months
after the operation. For the removal
of the cartilage.

The two most cases are taken from
Baron Larrey's "Memoirs of Military Surgery"
Case 10th.

Jacques Antoine Durlin, twenty-four years of age, pupil, was admitted to the hospital of the imperial guard, for the cure of a sharp pain which he had felt for a long time in the left knee. He was afflicted at the same time with an intermittent fever of an irregular type. At the first examination I discovered the existence of a hard movable body palping in the spirit of the knee. There could be no doubt it was a cartilaginous excrescence, and I should have operated upon it immediately, if the ill health of the patient had not presented an obstacle to it. It was necessary first to attend to the fibril affection, and restore the health of the patient. This was accomplished by suitable remedies, and at the end of twenty days he was in a situation to undergo the operation, in order to remove the operation.
all the success I shored for from it, I perfomed it with such precaution, that the incision of the integuments was found to be at a very great distance from the joint. Consequently, after having placed the limb in a state of perfect extension, I pushed the cartilage, from the internal side of the knee, where it then was, to the opposite side. Its passage under the patella was effected without any pain. I then laid hold of this extraneous body with my fingers, and drawing it strongly upwards and backwards I caused it to protrude under the patellar effusion muscle, at more than then fingers breadth above the joint, the capsular ligament likewise accompanied it. After leaving it at this point, I cut through the skin, and part of the muscle with which I removed it, and afterwards through the
Capsular ligament, and in a moment
it was expelled through the opening,
without attempting to unite the wound.
I applied a very simple dressing, taking
care to soak the compresses, that were
intended to enclose the knee in can
phorated wine. No accident of any
kind interfered, and the wound was
perfectly cicatized the 25 day, which
would have occurred much sooner
if the patient, had been in better health.
The cartilaginous substance extracted
was about the size of an almond.
It was white, wrinkled on one side,
and having a polished surface on
the other, the analysis of it made by
Mr. Jacquelin, proves that the concretion
differs in hardly anything from common
cartilage; it proves also, that the substance
of the cartilage is formed of albumen
andannens become concrete, since these
two substances set in the same manner as cartilage itself, with water and with the dilute acid. —

Case 11th.

Hereus, a grenadier of the imperial guard, was received into the hospital for the cure of a very severe pain which he had felt in the left knee for several years. Sometimes he was stopped suddenly when walking, by the passage from one side to the other of the knee, of a hard body, which he said he could feel at the joint. In short, in the first examination I found two moveable cartilaginous bodies, each the size of an almond, their mobility was so great, that at the least touch they escaped from the pressure of the finger, and concealed themselves immediately within
the joint. In order to succeed in the extraction of them, I was obliged to hold them with one hand and operate with the other, in consequence of this difficulty, the operation was more tedious than the other, but the result was nevertheless the same, the two cartilages being extracted, the lips of the wound were brought together by sticking flax and the cicatrix was accomplished by the ninth day and the patient experienced no further obstacle to the motion of the limb.

Case 12th

This case is taken from the books of the Royal Infirmary Edinburgh.

A Leath aged 25, was admitted on the 15 July 1836, stated that 25 years ago he strained his right knee, and was confined


to bed for three weeks, at the end of that time he perceived a body in the joint he remained suffering occasional pain until the November preceding to his admission, when he was again attacked with pain in the joint, which confined him to bed for four or five weeks. At this time a second body was perceived in the same joint. At the time of his admission the joint felt weak, he was unable to work for any length of time, and when he walked he was liable to excessive pain in the joint, above the head of the tibia on the inner side, the bodies were of different sizes, one being more than twice as large as the other; the smaller one was quite superficial, in the left knee joint it is a body larger than either of those in the right, but he never suffered any inconvenience from it.
On the 22. Day, Lyon grafted the bones in the right knee at the outer part of the joint with his fingers, and made an incision over them, each was then fixed with a hook, and extracted. The wound was covered by two stitches, and cold applications continued. The wound was healed, cold applications continued, 25. stitches cut out, the patient felt well.

Case 17th

The following is a case of successful exploration performed in Edinburgh, the patient was about 22 years of age, and of a good constitution. About a year previous to the cartilage becoming loose in the joint, a pain resembling that of rheumatism, was felt all over the knee, which became very much swollen, apparently from an
increased secretion of synovia, which was probably more aqueous and less
flammable than in the healthy state, at times was a grating sensation felt on
rubbing the patella against the condyles. The constitution was at this time a
little disturbed, and the case presented all the appearances of the disease, which
used formerly to be called rheumatic white swelling; it was attacked by
fever, fomentations, and stimulating liniments, and the situation of iodine
was applied in the way recommended by Mr. Buchanan, which certainly was
of great service in absorbing the fluid appropriate rational remedies, were also
given at the same time, and in a few weeks the patients was able to walk, and
see his limbs, but a little swelling and
The natural secretion of synovia still remained, and when any violent exercise was taken, a pain was felt in the back part of the knee, together with considerable weakness, to relieve which a bandage was always worn.

In this way nine months passed over without anything further happening, when again the old symptoms returned the increased secretion of synovia was great, but the pain was principally confined to one that, the anterior part of the internal condyle, where it (pain) was felt on pressure or movement of the limb, it soon became so acute that the patient was compelled to keep the knee perfectly quiet. A solution of olive oil and sulphuric acid was rubbed on it night and morning.
which is much recommended by Sir Benjamin Brodie, as being beneficial in slight cases of synovial inflammation, though continued for some time, it afforded but little relief. The knee, however, was removed by blistering, but in the patient's attempting to walk, exciting pains were felt in the back part of the knee, as if something had got between the articulations, then continued for about a week, whenever the patient attempted to walk, and one day, after exercising the knee a little more than usual, all in an instant something gave way as it were, and slipped in between the condyles of the femur, and head of the tibia, and caused such exacerbating pain, as to make the pati
fall to the ground, on rising he found he was unable to extend the knee and it remained bent at an obtuse angle, all movements of it causing the most excruciating pain, great swelling, inflammation, and increased secretion of synovia. Followed on examining the knee joint it was discovered to be out of its place and the leg remained half bent until any apparent cause, all that could be done was to subdue the swelling and inflammation, for this purpose two blisters were applied every night for a week, one on each side of the patella, this practice I believe was first employed by Sir John Brodie who found that several blisters applied in succession were of greater
advantage than a single blister kept open by saline ointment." At the end of this period, the leg admitted of a little but not perfect extension; this was not without giving a great deal of pain, much swelling still was left after the blisters were healed, and the patient began to take the hydrate of potash and foment the joint well with hot water and in the course of a fortnight by applying an elastic bandage round the knee, he was able to walk, but on taking much exercise, the swelling returned, they without pain. The patient remained in this state about a month, when he fancied he felt something creep under the skin of his left knee, and on applying his hand, he discovered a foreign body, which he thought was round, and also...
the she of a difference, he immediately tried to secure it, but in this he was unsuccessful. For on the least movement, it was shifted to some other part of the joint, taking great latitude from the external to the internal condyle, being sometimes above, and sometimes below the patella, but mostly on the outer side above the patella; sometimes it would entirely disappear for several days together, and come forth again on any violent exercise; it did not now give any pain except when it got under the patella or ligamentum patellae when the pain was severe, and always followed by inflammation which took several days, and the application of linchess to sublime. The plan recommended by Middleton and Gough was then tried.
namely that of tying the foreign body in the upper part of the capsule, and keeping it there by means of a ring and bandage with the view of causing adhesion. This however failed on account of the violent pain and inflammation it caused, and moreover it did not effectively confine it to one place. The patient was now determined to have it extracted; the knee was kept very quiet for two days before the operation in order to allow any inflammation there might exist to subside, and the knees were freely opened. The cartilage was then forced up as high as it could be got, on the anterior side of the patella, it being there most superficial and being firmly retained in this situation, an incision was made upon it, whole length
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and when another touch of the knife
it spung out, the lips of the wound were
immediately pinched together, secured
by adhesive plaster, a bandage and splint
were then applied, to keep the limb
perfectly quiet, only a drop or two of
sympathetic escaped during the extraction.
No bad symptoms of any description follo-
wed, and the patient was able to walk
about in a week after the operation.

With regard to the manner in which
these loose bodies are formed in joints
very little that is either conclusive or
satisfactory, appears to be known.
According to Sir Edward Stone, Mr. Hunter
was the first person who attempted to give any proper account of their origin. Hunter had instituted some experiments to prove a living principle in the blood, and he endeavored to account for the formation of these bodies according to this theory, he first took at Jaf, granted that in these cases there was an extravasation of blood into the cavity of the joint, the first change he found to be coagulation and the coagulum thus formed, if in contact with living parts, did not produce an irritation similar to extraneous matter, nor was it absorbed, and taken back into the constitution, but in many instances preserved its living principle and became vascular, receiving branches from the neighboring blood vessels for its support, it afterwards underwent changes
rendering it similar to the parts to which it was attached, and which supplied it with nourishment. When a cartilage adhered to a surface which sustained its position, the attachment was weaker; in some instances tendinous, and in others it was entirely broken. M'deye, in his elements of surgery in speaking of these movable cartilages in joints, says, "the origin of such bodies has been ascribed to the effusion and organisation of blood and lymph; to the detachment by fracture of a portion of the articular surface, and to the separation of morbid growths from the margin of the cartilages of the joints. The last of these suppositions
is on the whole the most probable, as the bodies in question are often shown by the patient to be piped before they are movable, and they have been almost totally found an distinction adhering to the extremities of the bone, it may also be observed, that, so far as can be learned by external examination, they do not suffer any change of shape or size after they are first discovered.

Sir Benjamin Brodie has mentioned two cases in which a bony ridge had been formed round the margin of the cartilage of the joint, and consequent of the motion of the parts it continued had been broken off, and lay loose in the cavity of the joint. The next thing to be considered is the adoption of any measure which would
alleviate the sufferer from the inconvenience resulting from the presence of those bodies, and at the same time allow of the drink being used. For this purpose it was recommended by Middleton and Gasco, to endeavour to conduct the extraneous body to some part of the joint, where it occasions no pain and then secure it with the help of promoting adhesion to the contiguous parts; this plan was tried in case 13 and failed on account of the swelling and inflammation it caused. In any of cases recommended the use of aeced horse eat, and one case is mentioned by Dr. Samuel Cooper where this eat was used for ten years with success, and another
which it was used for a year, and then discontinued, the patient after passing cured. Sir Charles Bell in his Institutes of Surgery recommends the practice of Mr. Coland of London, ‘which is, to chase up the cartilage with the points of the fingers, to the line of the reflection of the cartilage from the inside of the head of the femur, and then to give it with a ring and compass and bandage. Singularly, though the cartilaginous body adheres and if it adheres it is absorbed—these movable cartilages are not liable to their appearance hard, rounded, or flattened, sometimes to become, they are mostly cartilaginous, though sometimes...
Partially burying in the centre they have a glistening nearly lustre; they vary in fire from that of a harmless to that of a frequenegg, and frequently more than one are found in the same point, two or three are most common.

The last thing to be considered is the operation for the removal of these bodies. This, so far as regards the operation itself, is so extremely simple, that little could be said about it, except merely to point out any little difference in its performance recommended by different surgeons, but when we come to look to the results of these operations...
the subject assumes a much more important aspect. In the first place the danger is increased consequent on entering into any large joint, and secondly we have to look to the formidable sequel of severe general inflammation, extensive suppuration, sometimes resisting amputation, ankylosis of the joint, and in some instances even death. These circumstances would make every prudent surgeon cautious in recommending the operation. Though undoubtedly the greater number of persons who are operated upon recover without any bad symptoms, still it is always
running a great risk, and undoubtedly it is the duty of the surgeon to try very palliative means first, and only in the event of the symptoms becoming unbearable, or the patient being incapable of using the limb, to recommend an operation — the most common method of performing it, is to have the limb extended and to secure the cartilage on the inside of the joint, as far as possible under the fascia interna. An incision may then be made upon it, and if the pressure requisite to grip it be not sufficient to force it out at the aperture, it may be
derived with a hook, and extracted. Mr. Lyne is of opinion that the incision should be large enough to allow of its escape by pressure, so as to render unnecessary the use of either hook or forceps. Some slight difference has been pointed out in the method of extracting the cartilage by Sir Charles Bell, and in conclusion, I shall detail his method of performing the operation. Having forced up the body on the inside of the head of the femur, it is the business of the assistant to hold it there, with very precaution.
against it is slipping away. I draw the integuments aside, and make the incision with a very sharp scalpel carrying it lightly, so as not to press the cartilage. I then grasp the membrane alone covering the cartilage 
prick it with a strong couching needle, and strike the cartilage so 
as to split it, 4. And now, drawing the incision lightly by the side of the needle you cut the capsule, and lift out 
the cartilaginous body. When the wound 
is permitted to retract, and the integument to take its natural position, the incision is obliterated, and will more readily 
rehe, than if the cut had been 
made direct into the joint."