Fibro-sarcoma of the dura mater (card specimen) ; Multiple sarcomata in the cerebral hemispheres and pons Varolii, with entire absence of cerebral symptoms (card specimen) ; Psammoma involving the superior frontal gyrus of the right side (card specimen) ; Simply cyst occurring in the right lateral ventricle (card specimen) ; Sarcoma involving the left fifth nerve near its origin : multiple sarcomata of the body (card specimen) ; Primary carcinoma of the cerebellum : left lateral hemisphere (card specimen) ; Primary round-celled sarcoma involving the inferior vermiform process of the cerebellum (card specimen) ; A case of multiple intussusception ; Two specimens of osteitis deformans ; Intraosseous or central necrosis of the femur ; Central sarcoma of the shaft of the femur / by D'Arcy Power.

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15-25

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15.

Fibro-sarcoma of the dura mater. (*Card specimen.*)

By D'Arcy Power.

The tumour, weighing with the attached portion of dura mater, three ounces, was found lying over the left fissure of Rolando. The tumour lay in a bed of thick purulent-looking material in a cavity which it had excavated in the ascending parietal and ascending frontal convolutions. The parietal bone was eroded on its inner surface.

A female, aged 25, had right hemiplegia thirteen years before her death. For eleven years she suffered from "fits," which are described as being of an hysterical character; she only once completely lost consciousness. Immediately after her first labour she suffered from headache; her temperature rose to 105° F.; she had a series of "fits;" her pupils dilated, coma set in, and she died five days after delivery.

At the *post-mortem* examination, made by L. Drage, Esq., to whom I am indebted for the tumour and notes, the uterus was found to be healthy, the lungs solid. A small mass of new growth was discovered at the left pulmonary apex.

Microscopically the tumour is a fibro-sarcoma.

February 2nd, 1886.

16

Multiple sarcomata in the cerebral hemispheres and pons Varolii, with entire absence of cerebral symptoms. (*Card specimen.*)

By D'Arcy Power.

Portions of a brain, viz. the posterior portion of the right cerebral hemisphere, the pons, and cerebellum.

In the cortical substance of the brain is a cavity filled with recent blood-clot. The cavity is situated in the ascending parietal and

supra-marginal convolutions. It measures an inch across and an inch in depth. It is lined by a thick membrane, which appears to have given way at the most superficial part, allowing of the protrusion of a new growth. In the substance of the occipital lobe, immediately above and anterior to the end of the posterior horn, is a patch of new growth, about the size of a split pea, with a small hæmorrhage just above it. Similar patches of new growth are scattered about in other parts of the hemispheres.

From a female, aged 47, who sustained a lacerated wound in her neck from glass four years before her death. Three or four months before her death her thyroid gland began to swell. The swelling increased rapidly, and the patient died from asphyxia. The tumour was diagnosed as a malignant growth of the thyroid gland, and was exhibited by Dr. Norman Moore at a subsequent meeting of the Society.

With the exception of pain in the head, referred to, the course of the lesser occipital nerve, the patient had absolutely no cerebral symptoms.

Microscopically, the growths are mixed-celled sarcomata.

The specimen is preserved in St. Bartholomew's Hospital Museum, Series xxx, No. 2502 (*c*). *February 2nd*, 1886.

17.

Psammoma involving the superior frontal gyrus of the right side. (*Card specimen.*)

By D'Arcy Power.

The tumour is sessile, and is attached to the under surface of the dura mater in the neighbourhood of the falx cerebri. The growth involved the right superior frontal gyrus, which had become partially absorbed as a result of pressure.

The specimen came from a dissecting-room body, and no further details could be obtained.

Microscopically, the tumour consists of a number of small concentric bodies resembling Paccinian corpuscles in transverse section lying in a stroma of fibro-sarcomatous tissue. Here and there the

round bodies are seen to be in direct connection with the blood-vessels.

The tumour is preserved in St. Bartholomew's Hospital Museum, Series xxx, No. 2466 (*b*). *February 2nd*, 1886.

18

Simple cyst occurring in the right lateral ventricle. (Card specimen.)

By D'Arcy Power.

A cyst springing from the choroid plexus in the right lateral ventricle. The cyst is simple and appears to be the result of cystic degeneration of the choroid plexus.

I am indebted to Mr. W. Lenton Heath for the following history and account of the *post-mortem* examination:

M—, aged 21, had been noticed by his friends to be indolent and generally lazy for about twelve months. On the night of his illness he ate a hearty supper at 10 p.m., and went to bed between 11 and 12 midnight. At 1.30 a.m. he was found semi-conscious and vomiting. He gradually became comatose and died after a slight convulsion at 3.30 a.m. With the exception of the want of energy he had always appeared to be in excellent health, and never had any "fits."

At the *post-mortem* examination made thirty-six hours after death the abdominal and thoracic viscera were found to be normal.

On opening the head a very large quantity of clear serous fluid escaped. The vessels on the surface of the brain were deeply injected and the convolutions were much flattened. All the ventricles were greatly distended with clear fluid, and on opening the right lateral ventricle the cyst was seen. It was as large as a pigeon's egg; it had not ruptured.

The cyst is preserved in St. Bartholomew's Hospital Museum, Series xxx, No. 2511 (*a*). *February 2nd*, 1886.

Sarcoma involving the left fifth nerve near its origin; multiple sarcomata of the body. (*Card specimen.*)

19.

By D'Arcy Power.

A GLOBULAR tumour of the size of a small walnut occupies nearly the whole of the interpeduncular space at the base of the brain. It springs from the left fifth nerve, appearing to involve the Gasserian ganglion. In its growth forwards it has pressed upon the left optic tract and the left side of the optic commissure. The left third nerve is flattened by pressure. The fourth and sixth nerves of the same side are involved in the growth. The inner portion of the left temporo-sphenoidal lobe is partially excavated and infiltrated by the tumour. A large sarcomatous growth, springing from the dura mater, has infiltrated the left occipital lobe.

Mr. F. W. Strugnell exhibited the patient whilst alive before the Clinical Society. I am indebted to him for the following notes of the case and the autopsy.

From a man aged 49; married; an ex-policeman.

February 18th, 1885.—He had violent pain of a neuralgic character over the left side of his head, with slight numbness of the affected part.

19th.—There was complete loss of sensation on the left side of the face and over the area supplied by the fifth nerve. There was partial dilatation of the left pupil, which did not react to light. He suffered from earache on the left side, and from severe catarrhal ophthalmia. The patient could not feel the continuous current from a thirty-cell battery.

24th.—The cornea of the left eye became hazy, and there was some catarrh of the right eye.

March 17th.—Pain of a severe character was felt in the left arm and forearm. The left cornea was sloughing; there was some thickening of the zygoma on the left side. Twenty-seven small tumours were noticed in different parts of the body.

The patient gradually became worse; there was no optic neuritis, however, in the right eye. Pleurisy developed on the right side. The speech became affected first only by the using of wrong

words, but later he could not speak at all. His gait became feeble, there was incontinence of fæces, and death occurred on June 27th, 1885.

Post-mortem.—Tumours, varying in number from the size of a walnut to that of a small orange, were found to the number of twenty or more, and also at the root of the right lung, in the liver, kidneys, and mesentery.

Microscopically the tumour is a fibro-sarcoma.

The brain is preserved in St. Bartholomew's Hospital Museum, Series xxx, No. 2499 (*a*). *February 2nd*, 1886.

Primary carcinoma of the cerebellum ; left lateral hemisphere. (*Card specimen.*)

20.

By D'Arcy Power.

The upper and anterior borders of the left lateral hemisphere of the cerebellum are the seat of a new growth of a soft gelatinous consistency. The right hemisphere is unaffected.

The patient, a male aged 47, was admitted to Matthew Ward, St. Bartholomew's Hospital, on April 18th, 1884. He had enjoyed good health until he suddenly became unconscious. On admission there was loss of power on the right side, and later on convulsive movements occurred on this side. The temperature reached 101·4° F. Vomiting occurred repeatedly, and death took place on the third day.

The new growth is a carcinoma, the cells are numerous and soft, and for the most part of a squamous epithelial type, but here and there they become cylindrical. They are embedded in alveoli of connective tissue. This framework of connective tissue is comparatively slight, so that the tumour is allied to the encephaloid cancers

The specimen is preserved in St. Bartholomew's Hospital Museum, Series xxx, No. 2502 (*b*).

February 2nd, 1886.

21.

Primary round-celled sarcoma involving the inferior vermiform process of the cerebellum. (*Card specimen.*)

By D'Arcy Power.

A tumour of the cerebellum involving the median portion of its under surface. It measured three and a half inches in length. Anteriorly it extends as high as the pons, whilst posteriorly it reaches almost as far as the free extremity of the pyramid. The under surface of the tumour lies upon the nodule and uvula, which are much compressed and flattened. The tumour grew from the pia mater. It is a round-celled sarcoma.

I am indebted to Mr. J. Langton Hewer for the following history of the case.

A child, aged 5, suffered from violent attacks of vomiting a year before death. She had double optic neuritis, partial blindness, and slight inco-ordination of her muscles in walking, in August, 1884. During January, 1885, the patient became completely blind, but the optic neuritis still remained, and there was no white atrophy. Frontal headache was very severe. Death took place in February of the latter year.

On opening the skull the inner table in the region of the occipital protuberance was rough as if from chronic osteitis, but there was no adhesion of the dura mater. On removing the brain a large quantity of cerebro-spinal fluid escaped. The floor of the third ventricle was translucent, and the ventricle itself was much expanded owing to the quantity of fluid it contained. The lateral ventricles were enormously dilated. The foramen of Monro was large enough to admit the end of the little finger. The third and fourth ventricles and the aqueduct of Sylvius were enlarged. The optic thalami were about one and a quarter inches apart. The foramen of Magendie was undiscoverable. The venæ Galeni were not pressed upon by the tumour.

The specimen is preserved in St. Bartholomew's Hospital Museum, Series xxx, No. 2468 (*a*). *February 2nd*, 1886.

Primary round-celled sarcoma, involving the inferior vermiform process of the cerebellum. (*Card specimen.*)

By D'Arcy Power.

A firm rounded tumour occupies the place of the inferior vermiform process of the cerebellum. It has encroached upon the tonsils on either side, and has scooped out for itself a cavity in the substance of either lateral hemisphere.

A man aged 36 was admitted into Mark Ward, St. Bartholomew's Hospital, on January 28th, 1885. He had suffered pain in the back of his head for twelve months. In the August preceding his admission he had constant vomiting lasting for ten weeks. When seen he was torpid and sleepy. He had long suffered from fibroid phthisis in both lungs.

On February 28th, ophthalmoscopic examination revealed extensive neuro-retinitis with great swelling and tortuosity of the vessels. There was considerable development of fibrous tissue along the course of the vessels. Both eyes were in a similar condition.

March 2nd.—Convulsions lasting for five minutes. Afterwards there was albuminuria, renewed vomiting, and finally, death from asthenia upon the 18th of April, 1885.

Microscopically the tumour is a round-celled sarcoma.

The specimen is preserved in St. Bartholomew's Hospital Museum, Series xxx, No. 2501 (*a*). *February 2nd*, 1886.

22

A case of multiple intussusception.

By D'Arcy Power.

By the kindness of Dr. Emmerson, of Biggleswade, I am enabled to show this evening a very unusual specimen. It consists of a piece of intestine in which there are two intussusceptions, one descending, the other ascending. The first intussusception is at the usual seat, viz. the ileo-cæcal valve. It measures rather

more than two inches in length. The small intestine has passed into the colon, dragging with it the caput coli and a portion of the vermiform appendix. On laying open the large intestine over the tumour thus formed the ensheathed portion is seen to be deeply congested, the terminal part being almost gangrenous. A slight amount of recently effused lymph has glued the small intestine to the inner wall of the colon.

In the large intestine, three inches above the end of the intussusception just described, is a second invagination. It is smaller than the former one, as it measures little more than an inch in length. In this case, however, the proximal portion of the colon ensheaths the distal or rectal end. On laying open the tumour the intussuscepted portion is found not to be gangrenous. In both cases, however, recently-effused lymph has glued together the contiguous walls of the gut. Both intussusceptions, therefore, must have existed before death. In the intestinal wall I do not find any evidence of polypus or other complications to account for the second intussusception.

The history of the case is shortly as follows, and for it I must thank Dr. Emmerson, who kindly sent me his clinical notes. The patient, a boy aged five months, was so suddenly attacked that he was supposed to have had a "fit." When he was seen, shortly after this seizure, Dr. Emmerson found him suffering from sickness and diarrhœa. On the following day the motions were slime stained with blood, but no tumour could be felt through the abdominal walls, though it was suspected that he was suffering from an intussusception. On the third day, however, as a tumour could be detected per rectum, injections of milk and water, and subsequently of air, were given ineffectually. The operation of laparotomy was declined by the parents, and the child died on the fifth day.

The pathological interest of this case is very great. There are two intussusceptions, the one situated at the ileo-cæcal valve, the common position, and the other in the transverse colon. The presence of recently effused, and as yet hardly organised lymph, is a positive proof that both these intussusceptions occurred during life. The second or more distal invagination is, moreover, an example of the ascending intussusception—a form so rare that until recently its very existence has been denied, and even now the ordinary text-books on surgery hardly mention it. Two similar cases, at least, have been reported, one by Mr. Peregrine from the

Victoria Hospital for Children,[1] and a second by Dr. Handfield Jones and Mr. Herbert Page.[2] In both these cases the second intussusception was the reverse of the ordinary form. As regards the retrograde or ascending variety of intussusception, Duchaussoy, out of a total of 137 cases which he collected, found sixteen, all being complicated, whilst Haven met with three instances in fifty-nine cases.

The clinical importance of the case appears to be on a par with that of double herniæ; that is to say, although they are rare, the possibility of their existence ought to be borne in mind. If laparotomy be performed for the relief of intussusception it is as well, before closing the abdomen, to make quite sure that a second invagination is not present. Such a warning might appear superfluous, but I have recently heard of at least two cases in which, after operation, the patient died in consequence of the existence of a second intussusception, and I have other reasons for supposing that they are not so rare as might be assumed from the scarcity of recorded instances. *February 16th*, 1886.

Two specimens of osteitis deformans.

23.

By D'Arcy Power.

The first specimen is a femur which was sent to me by Dr. Tayler, of Trowbridge, with a statement that he found it some years ago amongst a number of bones collected by his predecessor, an old practitioner in the town, who in his younger days had been an active collector of pathological curiosities. He supposes that at least forty years have elapsed since the specimen was procured. I have therefore brought it before the Society as an interesting example of a class of cases referred to by Mr. Lunn in his paper upon osteitis deformans,[3] as being "bones from cases of this disease, of more or less ancient date, which are scattered about

[1] 'Lancet,' vol. i (1873), p. 709.

[2] 'Medico-Chir. Trans.,' vol. lxi, p. 301.

[3] 'St. Thomas's Hospital Reports,' vol. xiii, p. 49.

in museums, but have only been examined in a vague and piecemeal way." I may further add that I have shown the specimen to Sir James Paget, who agrees with me in believing it to be a true case of osteitis deformans, though he thinks that it was probably preserved as a good instance of chronic periostitis.

The specimen is a well-developed adult femur, whose shaft has a marked antero-posterior curvature, and is flattened from before backwards. The lower half of the bone is more affected by the disease than the upper portion. The shaft is very considerably thickened, its circumference two inches above the adductor tubercle measuring no less than six inches, instead of the four or four and a half inches which a normal femur should measure at the same point. The surface of the bone presents the roughened tubercular appearance and the enlarged Haversian canals which are familiar in cases of chronic periostitis.

On section the increase in girth is seen to be due to a deposit of dense, ivory-like bone, which is more compact at the periphery than towards the centre. The bone nearest to the medullary canal is porous as if it were undergoing a process of rarefaction; whilst the medullary canal itself is increased in size and its cancellous tissue is much coarser than usual.

The second case appears to be an example of that variety of osteitis deformans which attacks a single bone, and of which Mr. Bowlby showed a specimen before this Society in 1883.[1] It is the upper half of the tibia of an old man aged 74, who died from the effects of prostatic hypertrophy. He had no evidence of gout or chronic osteo-arthritis, and at the *post-mortem* examination no other part of the body was found to be affected in a similar manner.

The bone is characteristically curved, and has undergone very considerable thickening. The thickening is due in great measure to the deposit of dense periosteal bone and in part to a rarefaction of the existing shaft. This change has been accompanied by an absorption of the walls of the medullary cavity. The portion of bone which has undergone rarefaction presents the same porous appearance as the bone in the preceding case, but the process has gone further; it cuts easily, and the pores are occupied by a soft pinkish material, consisting, as microscopic sections show, of embryonic medulla. The outer surface of the bone is roughened and the Haversian canals are enlarged.

[1] 'Transactions of the Pathological Society,' vol. xxxiv, p. 192.

Histologically the bone presents many of the appearances described by Dr. Sharkey in his examination of Mr. Lunn's case, whilst in most of its details it appears to be identical with the sections from Sir James Paget's classical case examined by Mr. Butlin.

The entire bone, even up to the periosteum, has undergone a process of rarefaction. The Haversian canals have merged one into another until they present large ragged gaps whose edges are rendered sinuous by Howship's lacunæ. The concentric arrangement in the Haversian systems has entirely disappeared, and has been replaced by a much more complex system of curving and interlacing rows of bone-corpuscles. The lacunæ are small and without canaliculi; the Haversian canals have in many cases dwindled to the most minute dimensions. The large spaces, formed by the fusing of the Haversian canals, which almost resemble the cancellous tissue of membrane bones, are occupied by embryonic medulla. This medulla consists of a very delicate fibrous reticulum containing developing cells of every form, from simple round-cells like in different tissue, to branched corpuscles as complex as a ganglion cell. In many cases the branched cells appear to form part of the reticulum as is the case in adenoid tissue. Numerous multinucleated cells lie in the fibrous meshes and in some instances they appear to be forming for themselves Howship's lacunæ.

The specimens are preserved in the museum of St. Bartholomew's Hospital, Series I, Nos. 74, *c* and *d*. *November* 17*th*, 1885.

24.

Intraosseous or central necrosis of the femur. (*Card specimen.*)

By D'Arcy Power.

The lower two thirds of the left femur in longitudinal section. The bone is thickened, more especially at its upper and posterior portion, by a deposit of new bone derived from the periosteum. The lower portion of the bone has undergone a process of sclerosis, which has led to the filling up of the medullary canal with a deposit of bone.

In the upper portion of the shaft the bone has undergone lamellar necrosis, and a portion of cancellous tissue has died with it. The dead bone has not, however, become separated, but is in many places invaginated by deposits of bone derived both from the endosteum and the periosteum.

At the time of amputation the medullary canal contained pus in its upper portion. The pus burrowed behind the semi-membranosus muscle, and opened into the knee-joint. The epiphysis is healthy.

History.—A boy, aged 17, who had experienced shooting pains in his left hip for seven months previous to admission. Soon after feeling the pain he noticed a fulness about the hip, accompanied by tenderness, heat, and redness. He kept his bed for three months. After amputation the patient made a good recovery.

The specimen is preserved in the museum of St. Bartholomew's Hospital, Series I, No. 167*a*. *November* 17*th*, 1885.

Central sarcoma of the shaft of the femur. 25.

By D'Arcy Power.

[With Plate XIV, figs. 2, 3, and 4.]

The specimen which I exhibit to-night is a somewhat unusual example of a class of tumours which is more frequently read about than seen. It is a primary sarcoma growing from the centre of the femur of a young man.

I am indebted to Mr. Langton, in whose practice the case occurred, for the following clinical history:—A. B—, a male aged 28, complained of pain in his right thigh for four months. He was treated for sciatica at Buxton by baths and friction, but derived no benefit therefrom. In September, 1885, Mr. Langton discovered a tumour in the long axis of the right femur. The swelling was broader above than below, where it tapered off into the natural thickness of the bone (Plate XIV, fig. 2). There was slight tenderness at one spot. On September 24th, whilst turning in bed, the right femur broke. On the 25th the leg was amputated through the lower part of the lesser trochanter, leaving the insertion of the psoas and iliacus muscles. The operation was performed by Furneaux Jordan's method. The medulla in the head of the bone was scooped out as far as possible, and the patient made a good recovery and has up to the present time remained free from recurrence, either locally or in other organs.

The specimen consists of the shaft of the femur for three inches downwards from the level of the lesser trochanter. Throughout its whole extent the centre of the femur is hollowed out into a conical cavity (fig. 3) which is filled by a firm tapering mass of new growth, projecting for a distance of nearly four inches below the end of the bone (fig. 4). The new growth must therefore have excavated the shaft of the femur to a corresponding depth. Near the lesser trochanter the bone has been sawn across, whilst its lower portion has sustained an irregular transverse fracture. At the upper part the medullary canal is closed by a deposit of sclerosed bone the result of chronic inflammation, except at the centre, where the new growth has caused absorption.

At the fractured distal extremity, where the new growth has

caused the greatest amount of absorption, it will be seen that the bony wall is very thin on the internal anterior and posterior surfaces, whilst on the external surface it has become locally thickened in such a manner as to form an oval swelling. This thickened portion was sawn through after the operation to facilitate its removal from the amputated limb.

The new growth is a mass measuring five inches in length by an inch and a half in diameter at its thickest part. It is only loosely attached to the interior of the bone. It consists of two distinct portions, a broad blunt lower part which is undergoing some secondary change and which is, I believe, the older, and an upper loose and more friable which is still actively growing.

Microscopically the friable upper portion is a round-celled sarcoma, whilst the lower part has a large quantity of fibrous tissue intermingled with its sarcomatous tissue and is undergoing a process of calcification. No myeloid cells were found.

The points of interest about the specimen appear to me to be:

(1) The comparative localisation of the tumour due, I suppose, to the rapid onset of secondary changes in the growth.

(2) The position of the growth, viz. at the centre of the shaft of the femur, a position so unusual that it might well have been diagnosed as a case of central necrosis without suppuration.

(3) The slight expansion which the femur has undergone compared with the large amount of absorption which has taken place. The compensatory thickening at one spot appears to be unusual, for in this case the tumour, which was observed before the removal of the limb, was due rather to hypertrophy of the bone than to its expansion.

Lastly, as I am not quite certain of the nature of the secondary changes which the growth has undergone, I should be glad, with the consent of the Society, to refer the tumour to the Morbid Growths Committee with a view to its further examination. I think that this would be the more advisable as it is a case which could easily be followed up, and as such tumours are sufficiently rare to render it of interest to know what may be their termination.

The specimen is preserved in the museum of St. Bartholomew's Hospital, Series I, No. 479 *a*. *December 15th*, 1885.

Fig. 4.

Fig. 2.

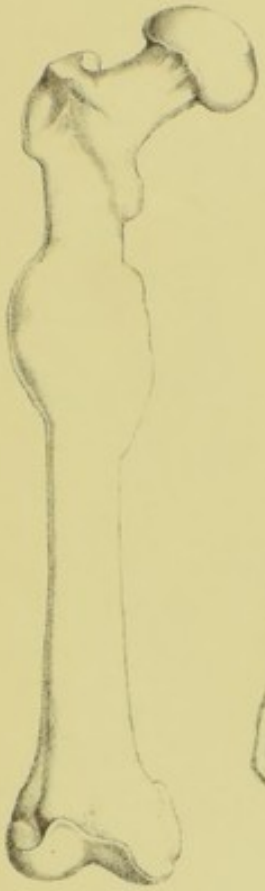
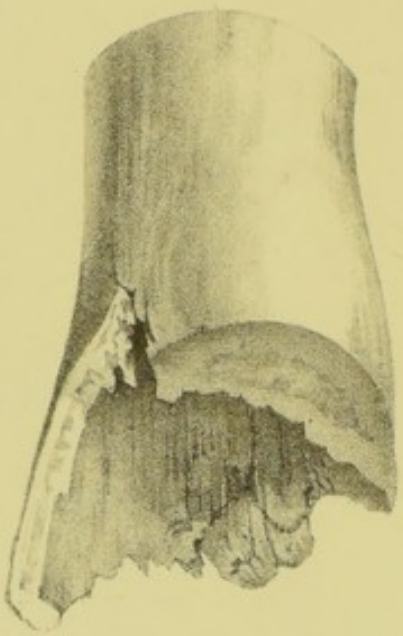
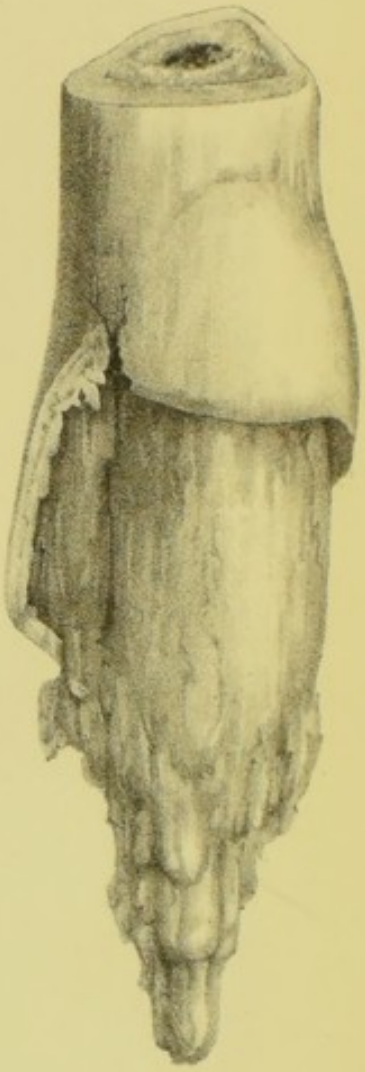


Fig. 3.





DESCRIPTION OF PLATE XIV.

FIGS. 2, 3, and 4.—To illustrate Mr. D'Arcy Power's specimen of a Central Sarcoma of the Shaft of the Femur.

FIG. 2.—Diagram of the swelling in the femur made before the removal of the limb.

FIG. 3.—The femur with the tumour removed. The large excavation and the irregular line of fracture are well seen.

FIG. 4.—The femur with the tumour *in situ*. The sarcomatous growth extended some distance down the shaft of the femur below the seat of fracture.

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